MODEL FARMLAND CONSERVATION PROGRAM FOR FRESNO COUNTY

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Photo by Paul Zykofsky

Model Farmland Conservation Program For Fresno County

Executive Summary

Fresno County, the nation's leading agricultural county, relies on farmland. As its population continues to grow, the prosperity of agriculture, and the entire community it supports, will depend on striking a balance between urban development and conserving farmland. The California Partnership for the San Joaquin Valley recognized this by awarding the Council of Fresno County Governments a grant to design a model farmland conservation program, and American Farmland Trust (AFT) was selected to help it do so. Over an 18-month period, AFT facilitated an effort by public and private sector leaders to classify Fresno County's farmland according to its significance to agriculture, to document current conditions and trends affecting farmland, and to propose a set of policies that responds to these trends by establishing a framework for effectively conserving the county's most "strategic" farmland. The elements of this model farmland conservation program build on the principles of *A Landscape of Choice* and are intended to help implement the Blueprint planning process that has been conducted simultaneously.

"Strategic" farmland is the land most likely to remain economically viable for high-value commercial agriculture in the long term, given its inherent characteristics and surrounding conditions. The characteristics used to classify farmland were: soils, availability of water, micro-climates, environmental sensitivity and urban development pressure. Based on computerized mapping of these characteristics, 559,000 acres of Fresno's 2.2 million acres of agricultural land were identified as the most strategic, i.e., the land that should receive the highest priority for conservation, and the lowest priority for non-farm development, as part of a broad strategy to sustain Fresno County agriculture.

One-sixth of Fresno's most strategic farmland is located inside or within one-half mile of city spheres of influence, highlighting the central challenge of minimizing the loss of this land by increasing the efficiency of urban development. Between 1990 and 2004, about 21,500 acres of Fresno County land were developed, one fifth of all the land developed since the City of Fresno was founded more than 1 30 years ago. Because most development took place on the edges of existing cities, 69 percent of all the land developed was prime or unique farmland, or farmland of statewide importance. An acre of land was developed for every 9.4 new residents, which was somewhat more efficient than the 8.1 people per acre in the San Joaquin Valley as a whole. But it was far less efficient than development in other regions of the state, even those that are more suburban than urban, demonstrating that developing less land *per capita* is entirely possible and that much of the farmland being lost in Fresno County is unnecessary.

> Increasing the efficiency of urban development is the single most important thing Fresno County can do to conserve the land on which its agriculture industry most depends.

If no change in current development patterns occurs, another 97,600 acres of land will be urbanized in Fresno County by 2050, roughly doubling the current urbanized area. Of this, 67,350 acres (105 square miles) is likely to be prime, unique or statewide important farmland and most, if not all of that will be "strategic" farmland. Moreover, if rural residential development, which now occupies roughly one quarter of all the developed land in the county, continues apace, another 55,000 acres could be removed from agriculture.

Behind the loss of farmland is a gap between the well-intended plans of local governments and their actual performance in living up to them. Nearly all city general plans call for avoiding the best farmland and developing land efficiently. But these plans are being frustrated by, among other things, a

combination of fiscal pressure to promote development imposed by state law—the fiscalization of land use; the establishment of city spheres of influence that are expansive enough to accommodate decades of new development (the average of the small cities is 41 years) even at today's inefficient rates; the failure of cities to measure how much of the best farmland is being developed in comparison to what is necessary to meet their needs; and ultimately, by the lack of a compelling, alternative vision of, and fiscal model for, how cities in the San Joaquin Valley should grow.

Given that most of the growing cities in Fresno County are located in the midst of its most strategic farmland, increasing the efficiency of development is the single most important thing that can be done to conserve the county's irreplaceable farmland. The Model Farmland Conservation Program responds to this challenge by proposing three basic elements:

- Establishment of a "Strategic Agriculture Reserve" comprised of the highest categories of strategic farmland, which should be conserved by a County policy of prohibiting most non-farm development within it and by holding cities accountable for not encroaching upon it unless it is necessary.
- Objective criteria for the expansion of city spheres of influence based on a demonstration of genuine need in light of the imperative of developing land more efficiently. The density benchmarks that emerge from the Blueprint planning process—the average now being considered is 8 dwellings per acre—should be used to determine whether cities have less than 20 years of developable residential land within their spheres before any expansion may take place. And any expansion should be limited to a 20-year supply of developable land. The same kind of test would apply to unincorporated areas of the County designated for development. General or specific plans would be amended to reflect the efficiency goals, and procedures would be established to ensure accountability for their implementation.
- Creation of a Stewardship Council as a non-regulatory, public–private partnership to oversee the progress of the Model Farmland Conservation Program and to conduct study of additional possible elements of the program, including but not limited to: new design and fiscal models for urban growth, buffer areas between cities, alternatives for financing agricultural conservation easements and options for discouraging rural residential development.

The ultimate challenge is to summon the political will to take action that will be truly effective.

Fresno County today resembles another California county that led the nation in agricultural production. There, one large city and many smaller ones were scattered over a vast fruited plain, sustained by the farms and ranches surrounding them. It took only a single lifetime for Los Angeles to be transformed into the poster child for urban sprawl. Local communities there ignored or discounted warnings that agriculture was being piecemealed to death as farm after farm was consumed by low-density subdivisions, freeways and parking lots. A decade ago, *A Landscape of Choice* issued the latest wake-up call to Fresno County, calling for more efficient, less auto-dependent communities that are more livable and conserve farmland. Yet, since then, little seems to have changed as another 17 square miles of the best farmland on Earth have been lost. The time for taking responsibility for effective action to conserve Fresno County's farmland is running out. The ultimate challenge is to summon the political will to make it happen.

Acknowledgments

Thank you to everyone who contributed to the Fresno Model Farmland Conservation Program project and report. It was definitely a team effort. In particular, I would like to acknowledge the following people and institutions:

California Partnership for the San Joaquin Valley for considering farmland conservation important enough to award a competitive grant to Fresno COGs to design a model program to safeguard this vital resource.

Council of Fresno County Governments for its own recognition of the need to conserve farmland, for its selection of American Farmland Trust to help design a model program and for its support throughout the process. In particular, I want to acknowledge Barbara Goodwin, former executive director; Tony Boren, current executive director; and Barbara Steck, deputy director, for their insight and guidance. Todd Sobrado, COG planner, also deserves recognition for his eager and diligent staff support of the project.

The project Steering Committee provided superb day-to-day oversight, technical expertise and practical advice; and the more broadly representative Advisory Committee served as a sounding board and debate forum, contributing many valuable observations and specific policy ideas. (Members of both are listed in the Appendix.) It would have been impossible to design a practical model program without the time their members devoted to the project and the good faith they showed in deliberating difficult issues in the same spirit of community stewardship that will be needed to successfully implement the program.

Fresno County Farm Bureau, and particularly its executive director, Ryan Jacobsen, were absolutely indispensable to the project. It isn't "farmland" without farmers, and the Farm Bureau turned them out at both large and small meetings, and otherwise provided us with a from-the-ground-up reality check on our observations about trends affecting farmland and agriculture, and on policy proposals to conserve the land and, ultimately, to sustain the industry that sustains us all. We can't thank them enough for all they do.

The Fresno County Board of Supervisors and many city officials also gave freely of their time and provided invaluable perspective in one-to-one interviews and as members of the Advisory Committee. They will be the ones who ultimately determine what will become of the Model Farmland Conservation Program recommendations in this report.

Mike McCoy, founder and co-director of the Information Center for the Environment at U.C. Davis, and his graduate students contributed—emphasis on contributed—expert computer mapping to evaluate the importance of farmland throughout the county to the local agriculture industry. Molly Penberth, manager of the Farmland Mapping & Monitoring Program at the state Department of Conservation, went out of her way to provide special maps documenting farmland development trends. Our thanks to Michelle Mauthe Harvey for facilitating the public meetings.

Last but not least, Julia Freedgood, director of AFT's *Growing Local* campaign, deserves thanks for helping to conceptualize the project, for organizing and participating in our public meetings and for offering constructive criticism throughout. AFT's Doris Mittasch gets credit for the design and layout of this publication.

With appreciation to all,

Edward Thompson, Jr.
AFT California Director
& Senior Associate

Model Farmland Conservation Program for Fresno County

Introduction

Fresno County, California, is the leading agricultural county in the United States. In 2007, Fresno's farmers and ranchers produced $5.3 billion worth of crops, livestock and other agricultural products, topping the output of more than 20 individual states. Needless to say, agriculture is the backbone of Fresno County's economy. And every bit of this bounty depends on the land. Land that, as Will Rogers once famously noted, "They ain't making any more of."

As we near the end of the first decade of the 21st Century, agriculture in Fresno County, like the rest of the global economy, is facing unprecedented challenges. "The outlook of the [local] agriculture economy is one of uncertainty," according to former Fresno County Agriculture Commissioner Jerry Prieto, Jr. "While some commodity prices have slightly increased, others have either remained stagnant or even decreased in recent years. Energy, fuel, fertilizer, seed, feed, water, labor and regulatory costs are at all time highs and take a dramatic toll on the profitability of agriculture."[1] In the face of such uncertainty, the land that makes agriculture possible becomes more important than ever as the one thing farmers and ranchers can continue to depend on — if the land itself is conserved.

"Conservation" means "to prevent injury, decay, waste or loss of; to use or manage wisely."[2] Fresno County has wisely chosen to make a greater effort to conserve its farmland: to reduce its unnecessary loss to development, even as the population grows, adding mouths to feed as well as families to house. Striking a balance between urban growth and farmland retention is at the core of this challenge. American Farmland Trust, the nation's premier agricultural conservation organization, is privileged to have been asked to help the nation's number one agricultural county meet this critical challenge.

> In the face of economic uncertainty, the land that makes agriculture possible becomes more important than ever.

History of the Project

In October 2006, the California Partnership for the San Joaquin Valley adopted a Strategic Action Plan that included recommendations for conserving important farmland as a strategy for maintaining agricultural economic viability. In March 2007, the Partnership awarded a grant to the Council of Fresno County Governments (COG) to design and implement a Model Farmland Conservation Program (MFCP) that would help achieve this goal and serve as an example to other counties in the Valley. Fresno COG turned to American Farmland Trust (AFT) for assistance with this project, because of its national experience in

1 Fresno County Agriculture Commissioner's Report, 2007, p. ii.

2 *Webster's College Dictionary*, Random House, 1997.

designing farmland preservation programs and because AFT helped facilitate the Fresno Growth Alternatives Alliance that in 1998 produced *A Landscape of Choice: Strategies for Improving Patterns of Community Growth*, which recommended principles and actions to balance urban growth with farmland conservation.

Purpose and Scope of the Project

The purpose of the Model Farmland Conservation Program project was to design a coordinated set of local policies and tools that, when faithfully implemented, will balance the need to accommodate future urban growth with the effective conservation of the land and water resources necessary for Fresno County agriculture to remain economically viable. In so doing, the project was also intended to create a model for other jurisdictions in the San Joaquin Valley.

As conceived by AFT and a Steering Committee, the project had three discrete parts, each designed to build on the previous ones:

1. Identify and map the agricultural lands that are the most important for the county to conserve because of their relative advantages for agricultural production.
2. Document and analyze current conditions and trends affecting agricultural lands, as well as public policies and other factors that contribute to them.
3. Select a coordinated set of policies and tools that will effectively conserve the most strategic farmland for agricultural use while accommodating urban growth.

Over a 20-month period, AFT staff worked on these tasks in close cooperation with Fresno COG, the project Steering Committee and an Advisory Committee[3] broadly representative of agriculture, development, business, environmental and local government interests. The Steering Committee guided day-to-day project decisions, while the Advisory Committee met on a monthly basis to consider and recommend preferred directions and policy options. Together with COG, AFT held public meetings to gather additional public opinion and, along with the Fresno County Farm Bureau, listened to those of farmers at a series of breakfasts held at cafés and coffee shops around the county.[4] We also met with County supervisors, city managers and elected officials to ensure that their viewpoints were represented.

Broader Planning Context

The Model Farmland Conservation Program is designed to supplement the more comprehensive efforts that have been made and, ideally, will be further expanded, to balance growth and agriculture in Fresno County. It was never intended to be a stand-alone bulwark against the loss of agricultural land. The program elements recommended here will build on the general plans of the County and its cities, on the principles of *A Landscape of Choice* that have been adopted by many local cities, and on the current Blueprint planning process[5] that is intended to chart a new course for the type and direction of urban growth in the county. The recommended elements of the Model Farmland Conservation Program should be considered tools for implementing the decisions made through the Blueprint process.

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[3] A roster of members of both committees can be found in the Appendix.

[4] Summaries of these meetings can be found in the Appendix.

[5] To learn more about the Blueprint and its own recommendations, see the Fresno COG Web site at http://www.fresnocog.org/document.php?pid=187.

Strategic Farmland: Identifying the Land Fresno County Most Needs to Conserve for Agriculture

All farmland is important to someone, especially the farmer or rancher who owns it. But all farmland is not created equally. Some land is inherently more valuable and important to agriculture than other land. So, when a balance must be struck between keeping land available for agriculture to feed a growing population, and housing and meeting the other needs of that population, it is important to identify the farmland that should be the first priority for conservation and the last priority for development. The land, after all, cannot be moved, while houses and other types of urban development can be located in many different places.[6]

> Some land is inherently more valuable and important to agriculture than other land.

The first step in creating a Model Farmland Conservation Program for Fresno County was, thus, to identify the land the County most needs to conserve. In doing so, we took a novel approach. It built on the conventional notion of "important" farmland, as defined by the state Department of Conservation's Farmland Mapping & Monitoring Program (FMMP), which relies primarily on the productivity of different soils. But it also reflects a wider range of factors such as availability of water and micro-climates that influence not only what can be produced, but also the long-term economic viability of agriculture — which is the ultimate objective of farmland conservation. We call the land singled out by this process "strategic farmland" because its identification itself represents a key part of the strategy for maintaining agriculture in Fresno County.[7] The term "strategic" also implies that public policy at the highest level of strategic decision making should recognize and safeguard this land.

What is "Strategic Farmland"?

The following definition of "strategic farmland" guided our process of identifying it. It was recommended by AFT and, after deliberation and revision, it was adopted by the project Advisory Committee.

> "Strategic farmland" is the land most likely to remain economically viable for high-value commercial agriculture in the long-term, given its inherent characteristics and surrounding conditions. It is the land that should receive the highest priority for conservation, and the lowest priority for non-farm development, as part of a broad strategy to sustain Fresno County agriculture.

This definition is focused squarely on the economic viability of agriculture as affected both by the characteristics of the land itself and by what is happening around it. This concept is novel, but not without precedent.[8] It is important to note, too, that although this definition implies that there is only strategic land and non-strategic land, our approach divides Fresno County land into four categories, from low to very high, that identify its *relative* importance to agriculture.

What Was Considered in Determining the Categories of Strategic Farmland?

In California, the FMMP is the standard method of identifying "important" farmland. Though the FMMP is one of the best systems of its kind

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6 It is true that agriculture itself can move — as it has been forced to do every time farmland has been developed. But the same advantages and limitations that make farmland important to conserve also determine how successful agriculture will be on the land to which it moves. All other things being equal, farmland that is inherently more suited to agricultural production because its soils are more fertile, its climate more benign, its water more reliable and its environmental challenges less daunting, will produce higher yields and greater, more reliable economic returns than land that is less suited. Not only the farmer, but also society benefits by maintaining agriculture on the most advantageous farmland, rather than moving it to land that is less blessed by nature.

7 The term "strategic" is defined as "important or essential to, or forming an integral part of, a strategy." *Webster's College Dictionary*, Random House, 2007.

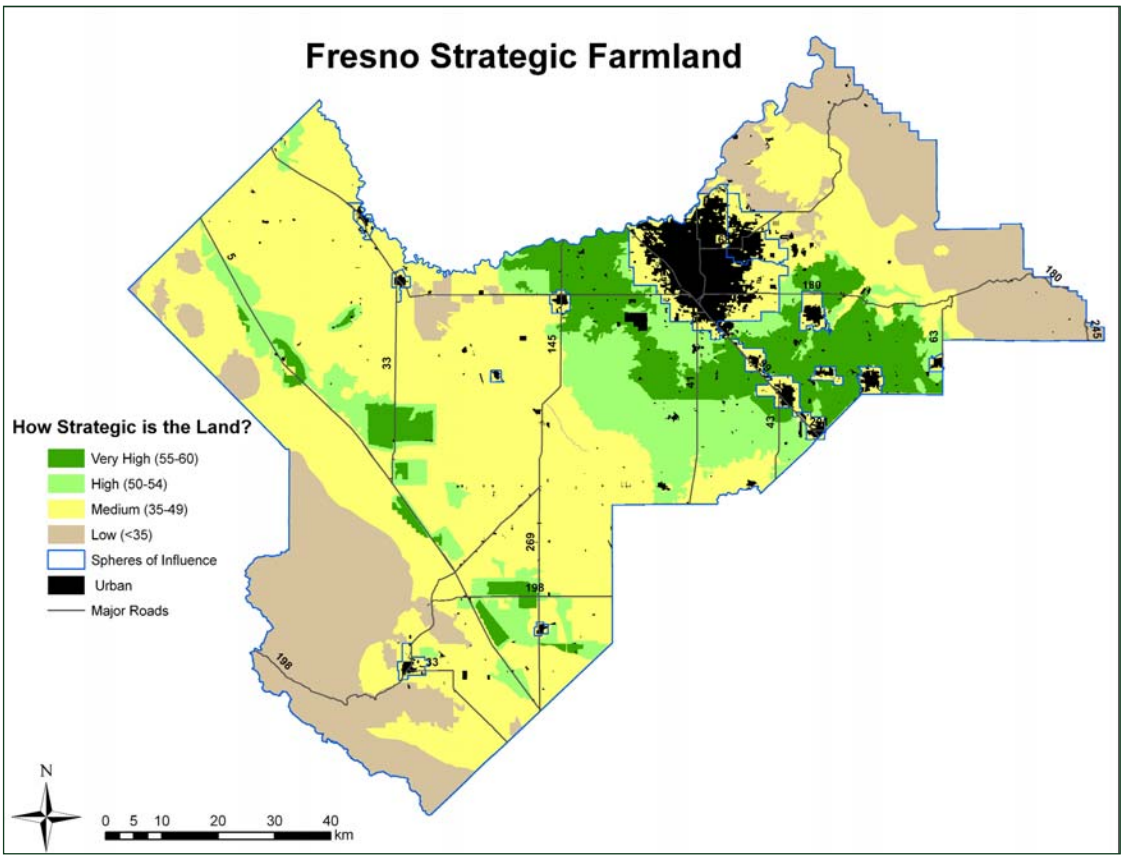
8 See the Land Evaluation and Site Assessment (LESA) system designed by the USDA Natural Resources Conservation Service. p://www.nrcs.usda.gov/programs/lesa/

in the nation, it does not capture all the factors that influence the long-term economic viability of agriculture. Its categorization of farmland is based largely on soil characteristics.[9] Soils are a critical factor in determining the agricultural importance of land. Better soils generally produce higher crop yields with the same inputs and, thus, strongly influence the economic viability of agriculture. However, other factors such as the availability and cost of irrigation water are obviously important to the ability to produce food in California. And still other factors, like the presence of endangered species, tend to inhibit agricultural production or make it less likely that the land can continue to be profitably farmed.

As part of the Model Farmland Conservation Program strategy, we expanded on the FMMP definition of important farmland to reflect the influence of these other important factors. With the advice and assistance of the project Steering Committee, including former Agriculture Commissioner Jerry Prieto and Farm Bureau Executive Director Ryan Jacobsen, a list of more than 20 characteristics of farmland was narrowed down to six factors that the Committee determined to have the most significant influence on the long-term economic viability of land for agricultural use in Fresno County. Three of these have a positive influence on agriculture: soil productivity, good availability of low-cost water and micro-climate. The other three have a potentially negative impact on agriculture: environmentally sensitive areas, fragmentation of land into small parcels and urban development pressure.

How the Map Was Made

To make the map, we turned to Professor Mike McCoy, director of the Information Center for the Environment (ICE) at U.C. Davis, ably assisted by three outstanding graduate students.[10] They are also providing computer mapping



[9] See the FMMP Important Farmland map categories. http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx.

[10] Evan Schmidt, Nathaniel Roth and Patrick Huber. For more information on ICE, see http://ice.ucdavis.edu/.
AFT also wishes to thank Kristine Cai of Fresno COG for providing additional computer mapping services.

services for the San Joaquin Valley Blueprint and, thus, were familiar with farmland in the region. For each of the six factors identified by the Steering Committee, ICE-digitized spatial data on a 100-meter square grid were obtained from existing sources and entered into a computerized, geographic information system (GIS) database. The table in the Appendix describes the specific data sets and how a range of values (0 to 12 points) was assigned to each. The data were then "layered" by the computer and, after the land fragmentation layer was eliminated,[11] each of the remaining five factors was given equal weight. The points were then added to obtain aggregate values for each tract, which were then mapped on a scale from one to 60. The range of scores was then divided into four categories: very high (55+)—i.e., the most strategic farmland—high (50–54), medium (35–49) and low (<35) points to produce the final map.

One factor that deserves special mention is urban development pressure. The assumption was made that land now officially earmarked for future development is not likely to remain economically viable for agriculture in the longterm. The clearest indication of this is inclusion of land within city spheres of influence, which are supposed to indicate the build-out of urban areas for the foreseeable future. Thus, what was, in effect, a policy decision was made by the Steering Committee to take agricultural land within existing spheres off the table from the standpoint of agricultural conservation—even though it is some of the most productive land in the county.

What the Strategic Farmland Map Shows

The Fresno Strategic Farmland Map shows the relative importance of farmland to agriculture as reflected by practical factors that contribute to, or detract from, its long-term economic viability. Of the 2.2 million acres of agricultural land in Fresno County, as documented by the Farmland Mapping & Monitoring Program, only 25 percent falls into the "very high" and "high" strategic farmland categories. And of the 558,649 acres of this highly strategic farmland, almost 16 percent—one out of 6 acres—is located either inside or within one-half mile of existing city spheres of influence.[12]

Fresno County Strategic Farmland

Classification	Acres	Inside or Within ½ Mile of Spheres	As Percent of Land in Classification
Very High	234,105	40,608	17%
High	324,539	46,064	14%
Medium	1,192,369	34,629	3%
Low	687,749	N/A	N/A

These statistics underscore the most dramatic thing that the strategic farmland map shows: Fresno County's most significant farmland is the most vulnerable to urban development. Almost all the cities on the east side of the County are virtually surrounded by the most strategic farmland. The empirical evidence and analysis that went into the map, thus, tend to confirm the conventional wisdom that the so-called "Golden Triangle" is, indeed, the most important farmland in Fresno County—the land

> Of the 2.2 million acres of agricultural land in Fresno County, only 25 percent falls into the "very high" and "high" strategic farmland categories.

[11] Fragmentation of the land into small parcels was eliminated from the list of factors because it very closely resembled the urban development pressure layer. This, in effect, resulted in "double counting" the influence of development pressure and, thus, unacceptably reduced the relative weight given to the other factors.

[12] These figures reflect an ICE analysis of the strategic importance of the land without discounting its value simply because it is located within city spheres of influence. There are approximately 55,000 undeveloped acres within existing spheres, 84 percent of which would fall into the "very high" and "high" strategic farmland categories, but for the policy decision to exclude it.

that agriculture can least afford to sacrifice if Fresno is to retain its pre-eminent role in American agriculture.[13] This places a high premium on finding ways for the cities to grow efficiently and in specific directions where development will do the least harm to the food production resources on which the county, the state and the nation depend. This is the greatest challenge that the Model Farmland Conservation Program must effectively address. As we shall see, this conclusion is reinforced by the current conditions and trends affecting farmland in Fresno County.

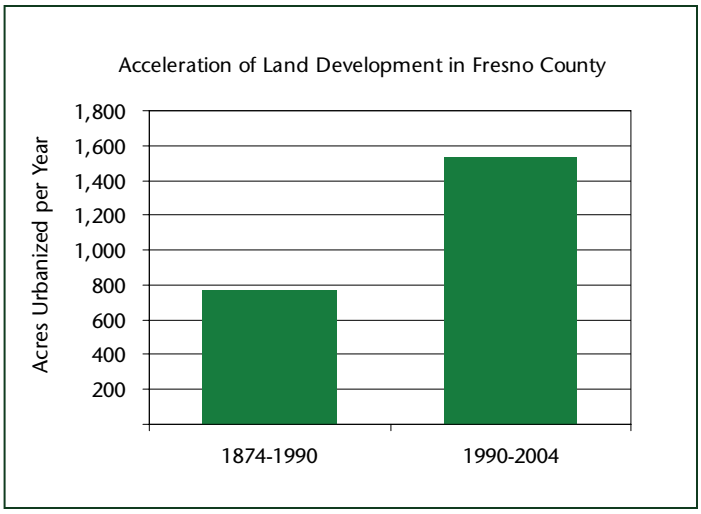
How Should the Strategic Farmland Map Inform Local Land Use Decision Making?

The strategic farmland map itself is not intended as a land use plan or, by itself, to have any legal standing. It is intended as a general guide to both private and public decisions about land use. And, as described more fully in the recommendations section, it is the basis for designating a Strategic Agricultural Reserve as a key element of the Model Farmland Conservation Program for Fresno County.

[13] The most strategic agricultural area of the county actually more resembles a cornucopia—a horn of plenty—since it is not confined simply to the area bounded by Highways 99 and 180 and the southeastern border of the county, but wraps all the way around the western side of the City of Fresno.

Present Conditions and Trends: What's Happening to Fresno County Farmland and Why?

The next step in designing a farmland conservation program is to understand the background conditions and trends to which the elements of the program must respond, in effect, defining the challenge. To that purpose, this section examines what is happening to farmland in Fresno County and attempts to explain why.



Urbanization of Farmland

Between 1990 and 2004, Fresno County lost 21,525 acres of agricultural land to urban development.[14] That is approximately one out of every 5 acres of all the land developed since the City of Fresno was founded 134 years ago. The acceleration of development since 1990 has resulted in a total of 110,897 acres of urbanized land in Fresno County, the largest expanse of any county in the Valley. The *annual* loss during this period of 1,539 acres or 2.4 square miles is roughly equivalent to the area of downtown Fresno bounded by the 99, 41 and 180 freeways or to the entire City of Reedley.

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Pattern of Development

Most of the land developed in Fresno County between 1990 and 2004 was located adjacent to existing urban areas. By far, the greatest loss of farmland was around the Cities of Fresno and Clovis. But smaller cities appear to have grown proportionately to their size. The city-centered pattern of development in the county—which is not atypical for the San Joaquin Valley or California as a whole—has made for "orderly" growth, but because many of the cities in the county are located in the midst of the county's most strategic farmland it has also resulted in the conversion of a disproportionate amount of the land Fresno County agriculture can least afford to lose.

The map at the top of the following page shows new development between 1990 and 2004 in yellow. Development before 1990 is light red. High quality farmland (prime, unique and statewide importance) is shown in green. Almost all of this is also "strategic farmland" as we have defined it. Dark gray areas are classified as "other" land, including fallow agricultural land and rural residential development. Lighter gray areas are non-irrigated farmland or grazing land. The blue lines are city spheres of influence in 2004.[15] The map at the bottom of page 14, using the same color scheme, shows that during the same period the smaller cities in the "Golden Triangle" area grew proportionately to their size.

Quality of Farmland Lost

As noted above, not all farmland is created equally. The quality of the land developed, in terms of its agricultural productivity, can make a significant difference in the impact on the agricultural capacity

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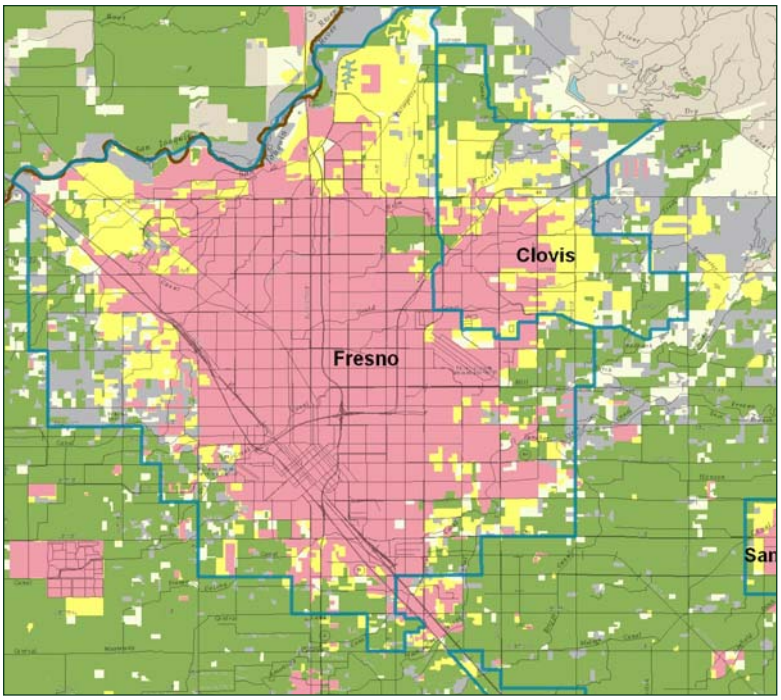
[14] This is the most recent period for which we have comprehensive statistics. All agricultural land data in this report are from the Farmland Mapping & Monitoring Program of the state Department of Conservation. http://www.consrv.ca.gov/dlrp/FMMP/Pages/index.aspx. They are compiled and analyzed in a 2007 American Farmland Trust report entitled *Paving Paradise: A New Perspective on California Farmland Conversion*. www.farmland.org/california.

[15] These maps were prepared by the Farmland Mapping & Monitoring Program for American Farmland Trust. An interactive version of a map of the entire San Joaquin Valley can be found in AFT's 2006 Web-based report entitled *The Future Is Now: Central Valley Farmland at the Tipping Point*. http://www.farmland.org/programs/states/futureisnow/threemaps.asp.

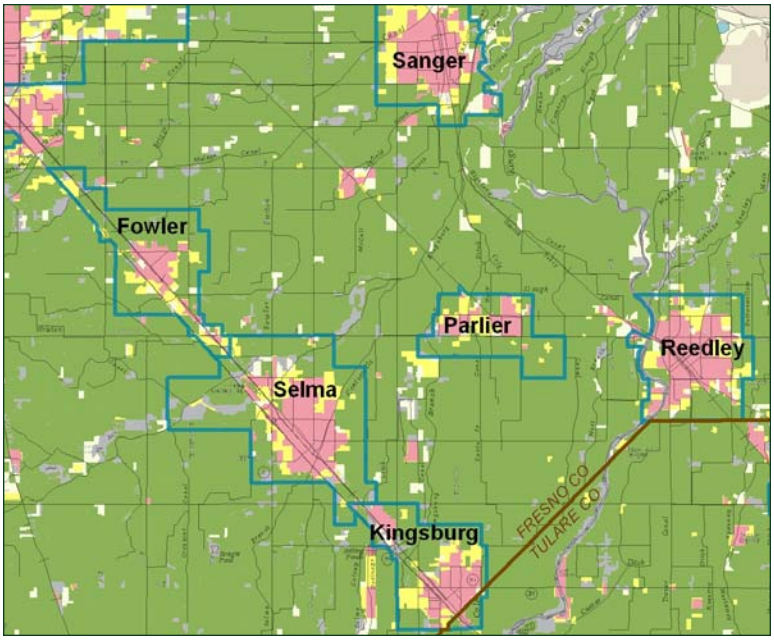


of Fresno County. Avoiding the best land when accommodating population growth is a key strategy for farmland conservation.

Of the land urbanized in Fresno County during the 1990–2004 period, at least 58 percent was farmland of the highest quality—prime or unique farmland, or farmland of statewide importance, as defined by the state Department of Conservation.[16] This includes only land that was directly converted from agricultural to urban use. An additional 11 percent (2,434 acres) of the land developed during this period was high quality farmland that was first taken out of agricultural use, generally by ceasing to irrigate it, and considered by the Department of Conservation to be "other" land before it was actually developed for urban use. Thus, as much as 69 percent of all the land developed in Fresno County was prime, unique or farmland of statewide importance. By contrast, only 31 percent of all agricultural land in the county falls into these categories. Thus, the best land in the county is being disproportionately targeted for development and its conversion is having a similarly disproportionate impact on the agricultural capacity of the county.

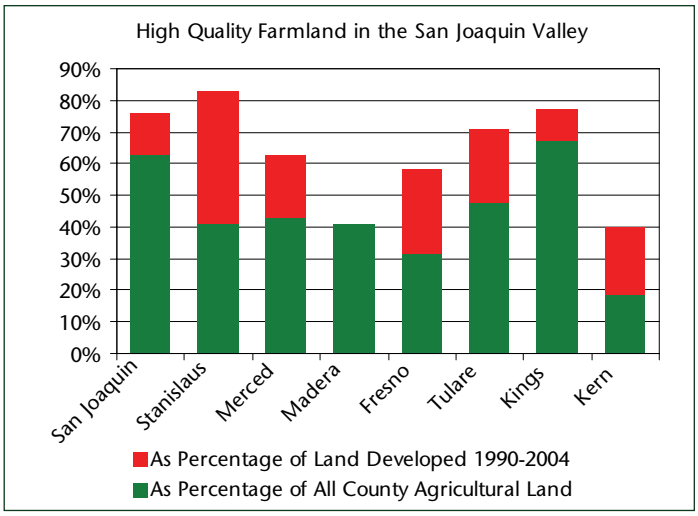
> The best land in the county is being disproportionately targeted for development.

The rate at which Fresno County is developing its best farmland is comparable to that of other San Joaquin Valley counties, which average 61 percent of all the land developed. But Fresno has one of the widest gaps between the percentage of development on the best land and the percentage of all its land that is farmland of the highest quality. And neither Fresno County nor the Valley as a whole is doing very well when compared with other regions of the state. In the Sacramento Valley, for example, only 34 percent of the land developed between 1990 and 2004 was farmland of the highest quality. Statewide, the percentage was 28 percent.



16 Formal definitions of farmland classifications used by the Farmland Mapping & Monitoring Program can be found in *The Future Is Now* at http://www.farmland.org/programs/states/futureisnow/landclassificationsystem.asp.

Efficiency of Farmland Development



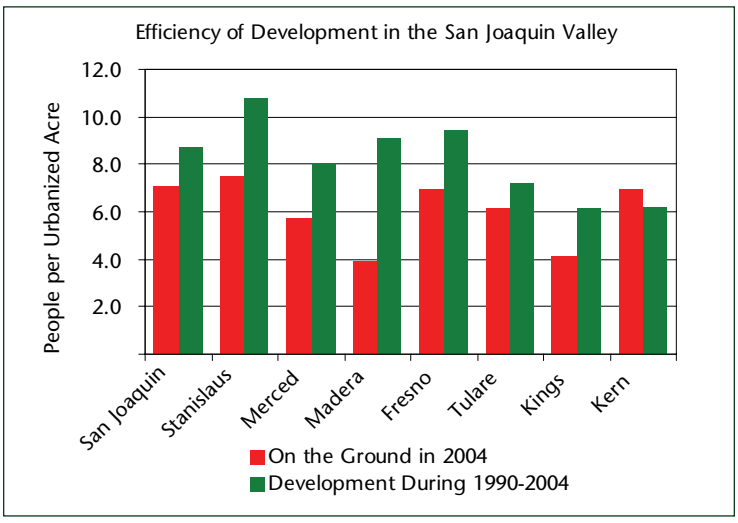
As long as most development occurs on the edges of cities and, thus, continues to consume the very best farmland in Fresno County, a premium will be placed on developing the land as efficiently as possible, so as to minimize its impact on the county's agricultural production capacity.

It is therefore worrisome that Fresno County farmland is being developed so inefficiently—one could argue, wastefully—compared to what appears to be reasonably necessary to accommodate population growth. Between 1990 and 2004, an acre of land was developed for every 9.4 new residents of Fresno County.[17] This figure includes all land uses within the urban "footprint," commercial, industrial and civic, as well as residential development, because all these uses consume farmland. (It does not include rural development, which is covered in the next section.) To get an idea of how spread out 9.4 people per acre is, imagine two four-person teams playing touch football in the Rose Bowl—with a referee and a small child holding the sideline yardage marker.

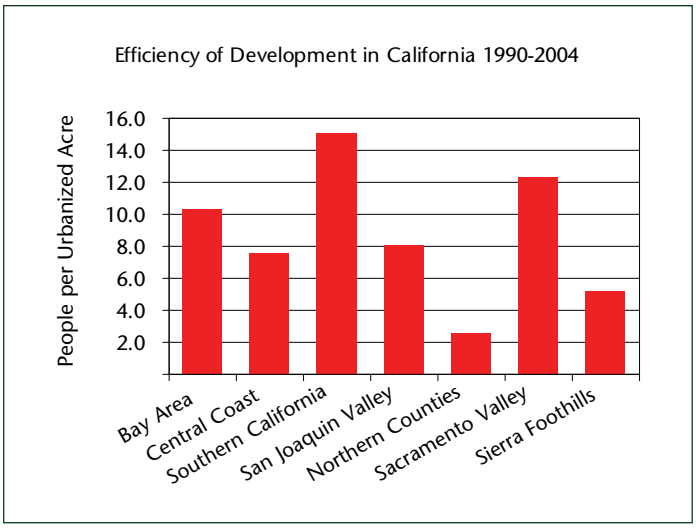
Though recent development has been more efficient than development prior to 1990, it has not improved the efficiency of what is actually on the ground by that much. In 1990, there were 6.3 people per urbanized acre in Fresno County. By 2004, this had risen to only 6.9 people per acre. The conclusion is that future development will have to be considerably more efficient to increase the overall efficiency of urbanization.

> Fresno County farmland is being developed inefficiently compared to what appears to be reasonable necessary to accommodate population growth.

Fresno County is being developed somewhat more efficiently than the San Joaquin Valley as a whole, in which recent development has averaged 8.1 people per acre. But compared with other regions of the state, the San Joaquin Valley is itself being developed far less efficiently. For example, recent development in the Bay Area (including its outer suburbs but not including the City of San Francisco) was 28 percent more efficient than in the San Joaquin Valley. In Southern California (including Los Angeles), development was 88 percent more efficient and in the Sacramento Valley, the state's other premier agricultural region, it was 52 percent more efficient.



[17] This figure was calculated by dividing county population data from the U.S. Bureau of Census by the acreage of urbanized land from the California Department of Conservation's Farmland Mapping & Monitoring Program. These data were used to permit a comparison with other counties and regions in the state. The Council of Fresno County Governments uses a somewhat different method of calculating urban density.



More than anything else Fresno County could do, improving the efficiency of development—consuming less land *per capita*—would do the most to conserve the farmland on which agriculture depends the most.

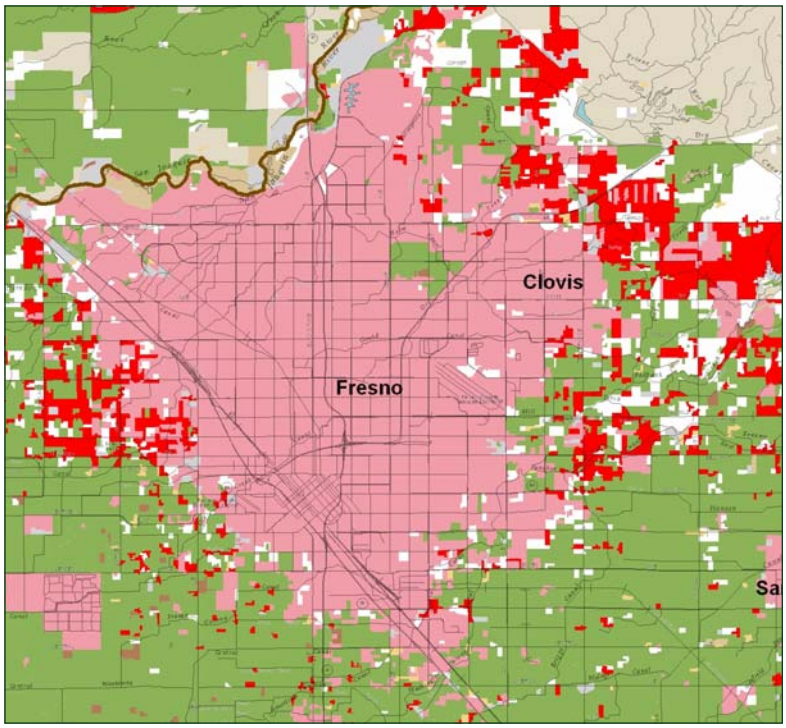
Rural Residential Development

The foregoing development statistics encompass only commercial and industrial development, civic and infrastructure development, and residential development up to a density of six dwellings per 10 acres, the equivalent of 1.5 acre lots. Rural residential development on larger lots is treated separately by the state Department of Conservation.

In 2002, the first year for which data are available, there were in Fresno County, 37,930 acres of rural residential development on lots up to 10 acres. This increased to 38,690 acres by 2004 when rural residential uses comprised 26 percent of all land devoted to all urban and residential uses in the county. During the period between 2002 and 2004, rural residential development accounted for 18 percent of all urban and residential development in the county. While this was an improvement over the previous trend, rural residences continued to consume a huge percentage of all the farmland removed from commercial agricultural use in Fresno County.

To put the impact of rural residential development in perspective, its efficiency can be compared to that of urban development. Based on an estimated rural residential population of 23,000—3 percent of the county's total population—and an average lot size of 5 acres,[18] in 2004 rural residences in Fresno County occupied an acre of land for every 0.6 people, making it roughly 16 times less efficient than the average urban development.

The only thing that makes the extreme inefficiency of rural residential development less of a threat to Fresno County agriculture is the fact that it has occurred primarily on less productive land in or toward the Sierra foothills, where the land is less critical to the production of high-value crops. As shown in red on the map below,



[18] Average lot size based on a 2000 statistical study by American Farmland Trust entitled *Ranchettes: The Subtle Sprawl: A Study of Rural Residential Development in California's Central Valley*. It ignores rural residential parcels larger than 10 acres, of which there are a considerable number in the Valley. The study was based on proprietary real estate industry data and has not been updated.

the two areas where rural residential development was concentrated in 2004 were the result of a deliberate choice to zone land for this purpose. Though a significant number of rural residential parcels remain undeveloped in these areas, the County has changed its policy to discourage further development of this type. Regrettably, these areas are now so subdivided into small parcels that there is little hope that they could be redeveloped at higher density.

Projected Growth and Loss of Farmland

If Fresno County continues to urbanize an acre of land for every 9.4 new residents, and if the urban population of the county increases by 918,900 as projected by the state Department of Finance, an additional 97,600 acres of land will be developed by 2050. That would almost double the current urbanized area.[19] Unless rural residential development is curtailed, another 55,000 acres of land could be removed from agricultural use, based on an estimated 33,000 increase in the non-farm rural population.[20] This additional loss of farmland could be reduced to 3,500 additional acres, if the people that would have moved into new rural residences are instead housed in urban areas at the current development efficiency. Thus, if development trends do not change, the projected range of additional land conversion in Fresno County by 2050 is between 101,100 and 152,600 acres.

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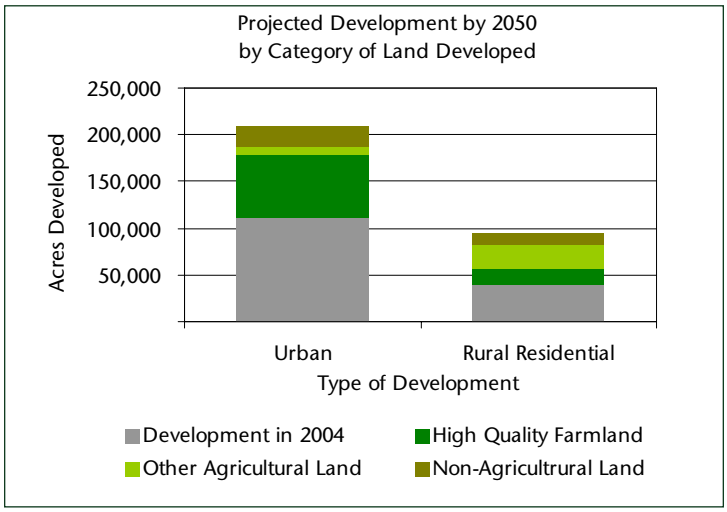
As the chart below illustrates, if present trends continue, much of the land converted to future urban uses will be agricultural land and most of that is likely to be the county's highest quality farmland. Seventy-eight percent of the land developed in Fresno County between 1990 and 2004 was agricultural land and almost 90 percent of that — 69 percent of all land developed — was prime, unique or farmland of statewide importance, i.e., farmland of the highest quality. If this trend continues, 76,400 acres of the land urbanized by 2050 will be agricultural land and, of that, 67,350 acres will be farmland of the highest quality. Rural residential development will claim an additional 42,900 acres of agricultural land and, of this, about 18,150 acres is likely to be farmland of the highest quality.[21]



The map on the following page shows in orange the 2050 growth projection of the San Joaquin Valley Blueprint, assuming present trends continue.[22] A comparison of this map to the strategic farmland map shows that most of this new growth would consume the land Fresno County agriculture can least afford to lose. Indeed, the Blueprint's analysis shows that, of the projected

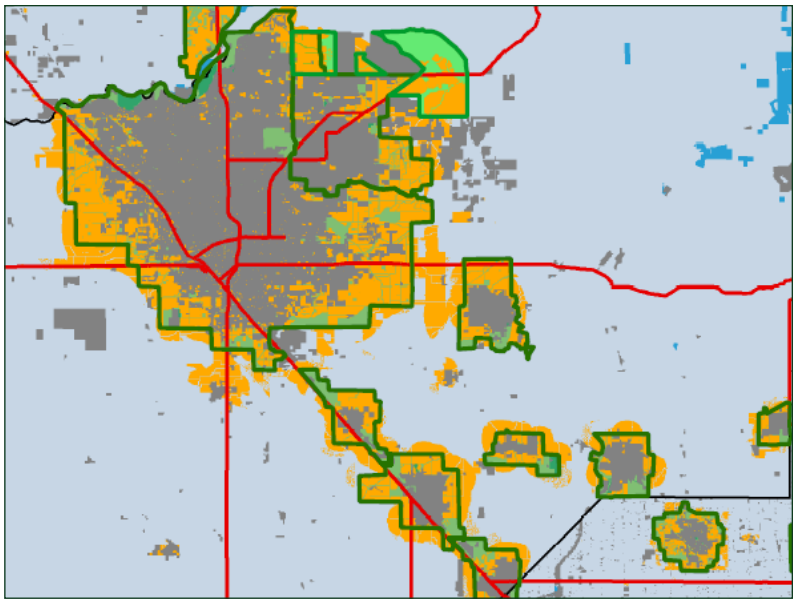
[19] AFT's analysis closely matches the projected 98,544 acre loss estimated in the Blueprint prepared by the Council of Fresno County Governments. *San Joaquin Valley Blueprint: Fresno County Progress Report*, p. 45 (November 19, 2008) The Blueprint calculation uses the entire population increase, rather than just the urban population, but also assumes a higher urban development efficiency of 12.1 people per acre.

[20] This assumes that the proportion of Fresno County residents living outside urban areas will remain roughly the same (12% according to the U.S. Bureau of the Census) and that the occupants of non-farm rural residences continue to make up an estimated 23% of the total rural population.

[21] This assumes that 78% of rural residential development will occupy agricultural land and that one-third of it will be on prime, unique or statewide important farmland. The latter is an educated guess about the proportion of rural residential development that now occupies the highest quality farmland.

[22] *San Joaquin Valley Blueprint: Fresno County Progress Report*, n. 5 supra, p. 45.

98,544 acres that will be converted to urban use under its base case scenario, i.e., a continuation of present trends, 28,676 acres would fall into the two highest classes of strategic farmland. Much of the rest, however, would be land of equivalent agricultural productivity that does not rank as highly on our strategic farmland classification system only because it is located within existing city spheres of influence.[23]



Why Is This Happening?

In summary, Fresno County is developing more farmland than every other county in the San Joaquin Valley except Kern. It is developing its best farmland disproportionately. And it is developing it quite inefficiently compared with other regions of California. A continuation of the present trend will lead to the loss of tens, and possibly hundreds, of thousands of additional acres of what is, in the final analysis, one of the world's most important—and irreplaceable—agricultural resources.

This is all happening despite a strong local awareness of the importance of farmland to Fresno County and myriad official policy commitments to conserving it. The Fresno County general plan is illustrative of these commitments:

> "The County sees its primary role to be the protector of prime agricultural lands….The plan seeks to protect its productive agricultural land as the county's most valuable natural resource and the historical basis of the economy.… Plan for the location and intensity of urban development in a manner that efficiently utilizes land area located within the planned urban boundary."[24]

The principal reason for the disparity between official policy and actual performance in conserving farmland appears to be the frustration of local government intentions to achieve more efficient development. The reasons for this are complex and certainly not uniform from city to city. But, in general, they are driven by what has been called the "fiscalization of land use."

The principal reason for the disparity between official policy and actual performance in conserving farmland appears to be the frustration of local government intentions to achieve more efficient development.

The ability of local governments to raise property taxes is limited by state law and, thus, they seek revenue from new commercial development that generates sales tax. Commercial development tends to locate where there are enough "rooftops" to support it, so cities are practically compelled to embrace residential development as well. And, because of the need for revenue that depends on development, cities are not in a position to drive a hard bargain with developers. Developers, in turn, are reluctant to propose anything other than the kind of inefficient residential subdivisions that have predominated in the market, i.e., one story, single-family detached homes on fairly large lots, accessible to the

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[23] Id.

[24] Fresno County 2025 General Plan (2000), Vision Statement, p. 8. Other local commitments can be found in the Appendix, Local Government General Plan Policies on Conserving Farmland in Fresno County.

community only via the automobile. Contributing to developers' attachment to the status quo is that there seem to be few successful, alternative models of higher efficiency development in the San Joaquin Valley market.

Reinforcing the trend toward inefficient development are two additional phenomena. First, local governments do not appear to track what kind of development is occurring or how efficiently or inefficiently it is consuming farmland. They simply do not know the extent to which their well-intentioned general plans are being carried out. Because it is not measured, it is not surprising that performance does not meet the expectations of policy.

> Local governments do not appear to track what kind of development is occurring or how inefficiently it is consuming farmland.

Second, city spheres of influence tend to be much larger than necessary to accommodate a reasonable amount of future development, particularly in the smaller cities (all those except Fresno and Clovis). Collectively, 45 percent of all the land within the smaller city spheres remains undeveloped.[25] On average, they have 44 years worth of development capacity within their existing spheres, assuming development occurs at the average 1990–2004 efficiency of 9.4 people per acre. The number varies widely among cities, but only three of them have less than a 20-year supply of developable land within their spheres. Though there is no way to prove it, the excessively large city spheres of influence almost certainly give the impression that there is "plenty of land left" and, thus, that there is no urgency to encouraging more efficient development.

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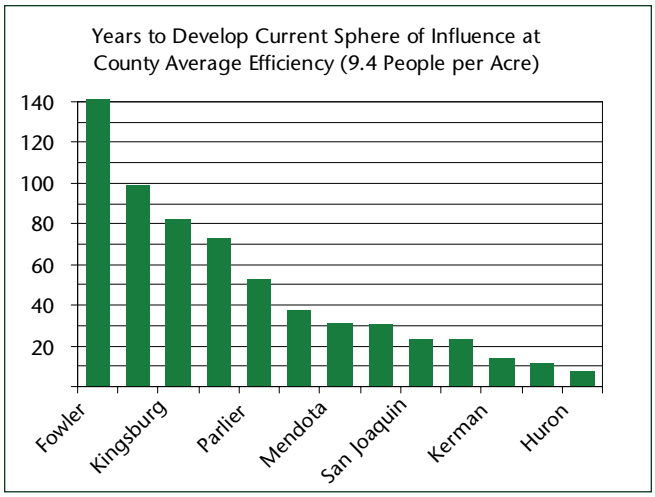

To some extent the expansion of spheres of influence appears to have been a defensive strategy employed by cities to gain more control over surrounding land as well as the additional potential revenue it could generate when developed.[26] Owners of surrounding farmland, who tend to be very influential in their communities, seldom object to—and may welcome—being included in the larger spheres because it can substantially increase their property values in anticipation that the land will ultimately be developed.

> Increasing the efficiency of urban development is the single most important thing Fresno County can do to conserve the land on which its agriculture industry most depends.

As noted above, what makes all these tendencies favoring low density development especially troublesome in Fresno County is that the cities where development is occurring are surrounded by the very best, most strategic farmland. Thus, increasing the efficiency of urban development is the single most important thing Fresno County can do to conserve the land on which its agriculture industry most depends. The following section proposes a suite of policy tools intended to counteract the tendency toward inefficient urban development of strategic farmland.

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25 Source: Fresno Local Area Formation Commission, 2008. And see table, Current Development Capacity of Cities in Fresno County, in the Appendix.

26 It is not clear whether the extra cost of providing public services to additional development is taken into consideration. For a comparison of the public service costs of low versus higher efficiency development, see *Alternatives for Future Urban Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers*, American Farmland Trust, 1995, available at http://www.farmlandinfo.org/documents/30361/FUTURE_URBAN_GROWTH_IN_CALIFORNIAS_CENTRAL_VALLEY.pdf .

Policy Recommendations

The following policy recommendations represent the broad consensus of the project Advisory Committee. The Committee was presented with and considered many different policy options, based on best practices and policies that have been adopted by local governments in California and elsewhere in the nation. (See the Discussion & Decision Matrix in the Appendix.) All the policies AFT recommended appear to enjoy substantial public support and would strengthen the overall farmland preservation effort in Fresno County. However, the Committee could not reach agreement on some of them, mainly because of the many details that needed to be worked out. These are recommended for further study and deliberation at the end of this section. The suite of policies on which the Advisory Committee generally agreed, and that they helped shape through their good advice and counsel, are recommended as the basic elements of a Model Farmland Conservation Program for Fresno County.

A New Paradigm for Efficient Urban Development

The Model Farmland Conservation Program provides new policy mechanisms for addressing what appears to be the central challenge of increasing the efficiency of development in cities that are surrounded by the county's most strategic farmland. However, it is not intended to stand alone as a strategy for conserving farmland. The extent to which this goal is reached will depend on a broader effort to actually facilitate urban development that is not only more efficient in using land, water, energy and other resources, but that also results in more attractive, vibrant, desirable communities.

A Landscape of Choice recognized this larger truth. It articulated three principles to guide policies aimed at conserving farmland. One was to "recognize the importance of agriculture and the need to protect productive farmland." Another was to "utilize urban land as efficiently as possible." Both of these are reflected in the Model Farmland Conservation Program elements recommended here. The third principle, however, speaks to the broader effort that must be made, but that was beyond the scope of this project—to "develop livable communities that emphasize pedestrian or transit-oriented design."

> A new paradigm for urban growth would combine innovative models of affordable design and architecture that improve livability, with creative economic models that make it possible for cities to finance adequate public services without throwing open their doors to virtually any kind of development.

Ultimately, what is needed in Fresno County is not only a set of policy tools that establish ground rules for the efficiency of development, but also a new paradigm for urban growth that combines innovative models of affordable design and architecture that improve livability, with creative economic models that make it possible for cities to finance adequate public services without throwing open their doors to virtually any kind of development.

A decade ago, *A Landscape of Choice* began the process of creating this new paradigm by offering sound direction to both local government and the building industry on the physical planning and design of communities. However, it did not address the fiscalization of land use that contributes significantly to the momentum of low density development. That is a more daunting challenge that, while beyond the scope of this project, is certainly something all local governments in Fresno County should come together to address.

The Basic Challenge

A close examination of current conditions and trends reveals that the central challenge of farmland conservation in Fresno County is how to balance the continued growth of cities, particularly those located in the area called the "Golden Triangle," with conservation of the highly strategic agricultural land that more or less surrounds them. An expanding population,

a desire for greater economic opportunity and amenities, and the financial burden placed on cities by state revenue limitation measures, all compel cities to grow. How they do so is the key to conserving farmland, both by preventing the unnecessary conversion of the land from agricultural use and by making the best use of that land which must be converted.

How cities grow is the key to conserving farmland, both by preventing the unnecessary conversion of the land from agricultural use and by making the best use of that land which must be converted.

The success of the Model Farmland Conservation Program should be measured by the extent to which it achieves the following objectives:

- Urban growth will be directed away from the most strategic farmland to the fullest extent possible;
- Efficiency (density) of urban development will be significantly increased to minimize the per capita conversion of highly strategic farmland;
- Rural residential will be eliminated or greatly reduced, particularly on highly strategic farmland;
- Land speculation will be discouraged by stable urban growth boundaries, helping to ensure that farmland remains affordable for commercial agriculture;
- An adequate supply of affordable water for agriculture will be secure; and
- Progress toward these outcomes will be continuously tracked to ensure accountability for results.

Elements of the Model Farmland Conservation Program

To achieve these objectives, the Model Farmland Conservation Program proposed here has three main elements:

1. Designation of a Strategic Agriculture Reserve accompanied by a policy of discouraging non-agricultural development within it;
2. A set of objective criteria for expansion of city spheres of influence and unincorporated development districts into the Reserve; and
3. A non-regulatory, public-private Stewardship Council to oversee the program and promote accountability for its effective implementation.

In addition, we recommend further study of policy options considered but not resolved by the project Advisory Committee.

A) Strategic Agriculture Reserve

The purposes of this element are to clearly identify the agricultural land in Fresno County that in the long term is most likely to sustain high-value commercial agricultural production, and to prevent unnecessary development. As documented in the section on Strategic Farmland, this critical land base was identified by analysis of various key factors influencing long-term economic viability of agriculture: soils, water, micro-climates, environmental sensitivity and urban growth policy. The principle upon which this element rests is that successful land conservation depends on identifying the land that is to be conserved. As *A Landscape of Choice* put it,

> A conscious planning effort to direct growth away from our best farmland… must be undertaken in order to minimize the impact of future development. Specifying agricultural areas to be protected and areas available for future growth will provide consistency for both farmers and developers in accommodating population increases and economic development.[27]

27 *A Landscape of Choice*, Fresno Growth Alternatives Alliance, 1998, p. 25.

The following provisions should be part of an intergovernmental agreement among the County and all affected cities, committing them to uphold its purposes and terms.

1) There is hereby established a Strategic Agricultural Reserve ("Reserve") consisting of all agricultural land scoring 50 points or higher (dark and light green) on the 60-point scale used to determine the land that has the greatest long-term potential value to Fresno County agriculture. This land is shown in dark and light green on the Strategic Farmland Map. This Reserve consists of approximately 559,000 acres (25 percent) of the county's 2.2 million acres of agricultural land. It excludes all land within existing city spheres of influence and existing zones or districts designated for non-agricultural use in unincorporated areas, which are the preferred location for non-agricultural development. In accordance with element B, below, any land subsequently included within city spheres of influence or within unincorporated development zones or districts under County jurisdiction, will be removed from the Reserve. It is the intention of the Model Farmland Conservation Program that the removal of land from the Reserve shall be minimized through efficient use of land in all areas designated for development.

2) Non-agricultural development is not permitted within the Reserve, unless it is for a use that is not compatible with urban settlement and there is no feasible alternative location outside the Reserve where the purpose of the specific development proposal could be achieved. The County shall make a finding to this effect, supported by clear and convincing evidence, before approving any such development. This provision shall not prohibit private residences or other structures and appurtenances that are an integral part of a commercial agricultural operation.

3) Transportation and other public construction projects are permitted within the Reserve only if there is no feasible alternative to locating them there,[28] and if their impact on agricultural land is minimized. As noted below, formal mitigation of the impact of such projects, as well as of the impact of residential and other development, should be studied as a way to strengthen this policy.

B) Criteria for Expansion of City Spheres of Influence and Unincorporated Development Zones and Districts into the Strategic Agriculture Reserve

The purpose of this element is to balance the anticipated growth of urban areas and the conservation of the most strategic agricultural land by requiring justification for, and limitation on, the expansion of spheres of influence and development districts within unincorporated areas. The principle on which this is based is that the expansion of developable areas should be premised on a demonstration of genuine need in light of the imperative of developing land more efficiently. *A Landscape of Choice* also addressed this issue:

> The ability to protect prime farmland and the natural resources necessary for agricultural production is intricately linked to our pattern of urban growth. Compact growth patterns and infill development will slow the pace of farmland conversion on the urban edge.[29]

The Blueprint, as an expression of community consensus on the shape of future development, is the benchmark against which development efficiency should be measured. A fiscally sustainable model for more compact, less

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28 The intention is not to discourage multi-modal transportation corridors in the Reserve, such as those being considered by the Metro Rural Loop. But in recognition that such projects can, and often do, have growth-inducing impacts, the planning of such projects should incorporate deliberate and effective measures to minimize both their direct and indirect impacts on agriculture.

29 *A Landscape of Choice*, supra n.1, p. 25.

automobile-oriented urban development will be critical to achieving greater efficiency.[30] The following criteria should be applied:

1) Cities may expand their spheres of influence, even if it would remove land from the Strategic Agriculture Reserve, only if and when they meet the following criteria.

   a) There is less than a 20-year supply of land suitable for residential development purposes within the city's existing sphere of influence. The adequacy of the existing supply of residential land will be calculated as follows.

      i) Supply – The acreage of undeveloped residentially designated land within the sphere, including any land under a Williamson Act contract and any land in rural residential parcels of 5 acres or larger.[31] The acreage shall not include any land located within a county other than Fresno County where the city has no jurisdiction over development.

      ii) Demand – The amount of land required by the state Regional Housing Needs Assessment (RHNA) to be zoned for residential use at the average density established by the Fresno County Blueprint as the benchmark for the city or an amount of land determined by the following Alternative Demand Calculation, whichever is greater.

      iii) Alternative Demand Calculation – The average annual number of residential units developed in the city over the previous 10 years, including any units under construction at the time the sphere of influence is proposed to be expanded, multiplied by 20 and divided by the average residential density (DU/acre) established by the Fresno County Blueprint as the benchmark for the city.[32]

   b) Notwithstanding the availability of land for residential purposes, the supply of land suitable for commercial, industrial, civic and other non-residential purposes is inadequate, as demonstrated by clear and convincing evidence, to meet reasonable demand for such development for 20 years.

   c) The amount of additional land to be included within the expanded sphere of influence does not exceed the amount required to provide a 20-year supply of land for residential and other purposes, using the above method of calculation, and the city has not expanded its sphere of influence within the last 5 years.

   d) The city has prepared a specific plan, or amended its general plan, for the area to be included within the expanded sphere of influence.[33] The plan must include –

      i) Goals, policies and procedures to achieve an actual build-out of residentially designated land that on average meets the Fresno County Blueprint benchmark for that city. This must include a method for evaluating individual proposals for residential development on parcels 10 acres or larger to determine whether, considering the cumulative impact of all residential

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30 Though it is beyond the scope of the Model Farmland Conservation Program, the design and implementation of such a model should be a high priority for the Council of Governments and its constituent jurisdictions.

31 If cities wish to permanently preserve land for agricultural use within their spheres of influence, for example, as buffers or for the production of locally grown food, arguably this land should be excluded from the amount of land available for development. Care should be taken in designating this land that it does not encourage "leapfrog" development that isolates parcels of farmland.

32 The Alternative Demand Calculation may be expressed by this formula:

$$\frac{\text{Avg Res Units Developed}^{\text{10 Years}} \times 20}{\text{Avg Res Density}^{\text{Blueprint}}}$$

It is anticipated that the Blueprint may establish lower density benchmarks for smaller cities than for larger ones. For example, if the overall density recommendation of the Blueprint is an average of 8 dwelling units per acre (DU/ac), the benchmark for smaller cities might be in the range of 6 DU/ac. The current average residential density throughout the county is about 4 DU/ac.

33 The Advisory Committee discussed the idea of expediting the annexation of land into cities. If this would encourage more efficient urban development, it deserves further consideration.

developments approved by the city since the most recent expansion of its sphere of influence, the city will be able to meet its Blueprint residential density benchmark. If the approval of a residential development proposal would not enable the city to meet its benchmark, the city must adjust its specific plan to increase residential density in another location so that build-out under the plan will meet the benchmark.

ii) A requirement that all new development be contiguous to existing developed lands and that it include appropriate spatial and/or vegetative buffers within the developed area (rather than on adjacent agricultural land) for the purpose of minimizing conflicts between non-agricultural and nearby agricultural uses. Special exceptions to the contiguity requirement may be granted, if the city determines that they are necessary and that any new development will not have an adverse impact on agriculture.

iii) A right-to-farm ordinance that is at least as protective of agricultural operations as the County right-to-farm law. It should apply to all agricultural land within the jurisdiction of the city.

iv) A requirement that all new development must have an adequate supply of water and will implement effective water conservation measures.

2) These criteria, including but not limited to the average density benchmark established by the Blueprint, shall also apply to the County and all special districts that propose to expand existing development zones or districts in unincorporated areas that would remove land from the Strategic Agriculture Reserve. The maximum amount of land that may be included in the expansion of such zone or district shall be the minimum amount necessary to fulfill the specific purpose for which the expansion of a zone or district is proposed, as supported by clear and convincing evidence. In no case shall this amount exceed a 20-year supply of land based on the applicable Blueprint density benchmark.

3) Absent other considerations that would independently warrant disapproval, the Local Agency Formation Commission (LAFCO) should approve the expansion of city spheres of influence and of unincorporated development zones and districts, if it finds that the foregoing criteria have been met.[34]

C) Stewardship Council

The purpose of this element is to provide independent oversight of the Model Farmland Conservation Program to encourage accountability by all entities whose performance is key to its success. The stewardship example of the Fresno Business Council, one of the partners that produced *A Landscape of Choice*, is the model for this recommendation.[35]

1) There is established a Stewardship Council to provide advice and counsel to the County, cities and LAFCO on the implementation of the Model Farmland Conservation Program. The Council will have no regulatory authority.

2) The Council should be composed of at least 15 experienced and respected community leaders who are broadly representative of all the interests with a stake in farmland conservation.[36] It is recommended that the

34 The intention is that these criteria, designed explicitly to balance farmland conservation and urban expansion, should supplement, but not supplant other criteria and procedures for approving the expansion of spheres of influence. Ideally, any additional farmland conservation criteria and procedures LAFCO may adopt will be consistent with the letter and spirit of these recommendations.

35 See FBC's Guiding Principles for Civic Transformation at http://www.fresnobc.org/about/values.

36 The Advisory Committee discussed the option of expanding the existing Agricultural Land Conservation Committee created by the Board of Supervisors. This deserves consideration as long as it would result in an independent body that is broadly representative of both the private and public sector. It was also suggested that the Council be able to establish subcommittees to oversee particular aspects of the Model Farmland Conservation Program and to study specific additional elements. To be effective, the Council must be adequately staffed and funded.

following interests be represented on the Council: County Supervisors, city elected officials, city managers, County and city planners, Agriculture Commissioner, Council of Fresno County Governments, LAFCO, service districts in the unincorporated area of the county, school districts, Fresno County Farm Bureau and other representatives of the agriculture community, the development and building industry, and the environmental and conservation community.

3) The Council should meet periodically, at least twice a year, to review progress in implementing the Model Farmland Conservation Program. It shall report at least once a year in writing to the public on such progress; any deficiencies in the program and any issues that are in need of resolution; and recommendations for improving the program. It shall also have primary responsibility for conducting studies of additional program elements that could improve the Model Farmland Conservation Program.

Recommended Study of Additional Possible Elements of the Model Farmland Conservation Program

Finding ways to finance city services without resorting to development as a "cash cow" is the most important thing Fresno County could do to maximize the chances of success of the Model Farmland Conservation Program. Several other important issues and ideas deserve further examination as possible additional elements that could also strengthen it. We therefore recommend that the Stewardship Council undertake a study of these issues as soon as possible and complete it within one year.

1) Models and incentives for attractive, marketable higher-density development in cities.

   The more cities can encourage development that reflects "higher density, improved design and greater diversity," the longer they can postpone expanding their spheres of influence and, thus, conserve agricultural land. The two main obstacles to higher-density development seem to be questions about whether it will "fit in" and the risks that developers may take if they propose something other than what has already proven acceptable to consumers.

2) Formal buffer areas between urban areas and between these areas and strategic agricultural lands.

   The Land Buffer Task Force has been studying this idea, but needs to get beyond abstract concepts. This could perhaps best be accomplished in the context of specific proposals for establishing buffers between and around cities. Several pilot programs should be undertaken to explore the practical options for establishing buffers.

3) Methods of financing permanent conservation easements and long-term conservation agreements.

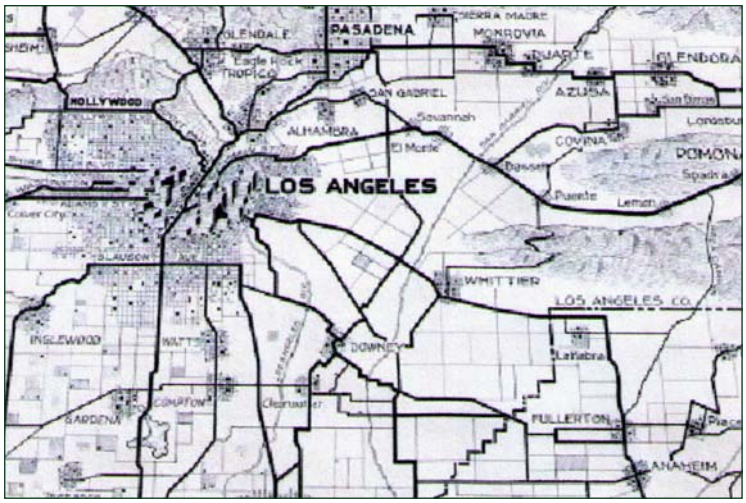
   Most successful farmland conservation programs in the nation combine limitations on urban development with affirmative measures to enable landowners to recover equity from their property without developing it. The voluntary sale of conservation easements has proved especially popular among landowners as a means of accomplishing this. Various methods of financing easement purchases are being used in California. Among those that deserve further study are mitigation requirements and fees for farmland conversion and public finance measures such as bonding and tax increments.

4) Methods of discouraging further rural residential development and its impact on land prices and agricultural operations.

   Fresno County has a significant amount of land devoted to very large-lot rural residential development. Though the County has taken fairly aggressive measures to discourage subdivision of land for new "ranchettes," there appears to be a significant inventory of land that is already ripe for this kind of development. Both this potential and additional policies to prevent or discourage it should be examined.

Final Observations

It wasn't that long ago that another California county led the nation in agricultural production. At the time, it looked very much like Fresno County, with one large city and many smaller ones surrounded by some of the best farmland in the world. It seemed impossible that its expansive, fruited plain—in which farms enriched the cities and vice versa—could ever be transformed into an endless landscape of urban sprawl. But that is exactly what happened within the span of a single lifetime.



Los Angeles in 1915 bears a striking resemblance to Fresno County today.

It seemed impossible that this expansive, fruited plain—in which farms enriched the cities and vice versa—could ever be transformed into an endless landscape of urban sprawl.

That county, of course, was Los Angeles. A half century ago, when L. A. was still the nation's top agricultural county, local officials there were being warned:

> *The Los Angeles area is undergoing a major transition. The change is from rural to urban, from country to city, from agriculture to industry, from barn to skyscraper. Areas where urbanization is only beginning may wish to give agricultural zoning careful consideration for more orderly and logical development.*
>
> *Crop Acreage Trends for Los Angeles County and Southern California*, Published by the Los Angeles County Board of Supervisors, June 1955

The warning, of course, went unheeded with the result that agriculture has all but disappeared from the Los Angeles area. While one can argue that what has replaced it is better or much worse, one thing is for certain: Los Angeles farmland—it is now an oxymoron—will never again feed the nation and the world.

Today, there are fewer fruited plains to feed the world's growing multitudes and, arguably, California's Central Valley is the most significant one on Earth—with Fresno County at its very heart. It has become a moral imperative that we conserve the farmland that produces the abundance necessary to sustain humankind. The responsibility to do so rests on those who have the most to say about the future of that land. And the time for exercising this responsibility is running out.

It has become a moral imperative that we conserve the farmland that produces the abundance necessary to sustain humankind.

To encourage us to act without delay, we have the benefit of hindsight and of history, which vividly remind us of what can happen if we fail to recognize that seemingly incremental changes in small communities, such as those that once existed around Los Angeles, can eventually result in the total transformation of an entire landscape. Closer to home, we have the recent history of land use in Fresno County itself as an object lesson.

In 1998, *A Landscape of Choice* was a breakthrough in foresight and wisdom. Its recommendations, had they been fully implemented, would have transformed the region into a model of what is now called "smart growth," balancing

urban expansion with farmland conservation. But initial enthusiasm for the consensus achieved in principle eventually waned and little appears to have changed. The "choice" Fresno County actually made, perhaps by default, was the status quo: to continue to allow cities to grow out into the countryside, consuming an acre of the world's best farmland for every nine new residents. As a consequence, since the publication of *A Landscape of Choice*, at least 11,300 additional acres (17.6 square miles) of Fresno County farmland have been lost, much of it unnecessarily.[37]

Today, as a new generation of Fresno County leaders considers a new Model Farmland Conservation Program, the ultimate challenge remains—to summon the political will to take action that will be truly effective.

The ultimate challenge remains to summon the political will to take action that will be truly effective.

[37] Source: Farmland Mapping & Monitoring Program, data from 1998 to 2006 (latest year available).

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Appendix

Contents

Roster of Steering Committee Members

Rick Ballantyne, Fresno Local Agency Formation Commission
Keith Bergthold, City of Fresno Planning Department
Tony Boren, Council of Fresno County Governments
Lynn Gorman, Fresno County Planning Department
Ryan Jacobsen, Fresno County Farm Bureau
Will Kettler, Fresno County Planning Department
Jerry Prieto, Jr., Fresno County Agriculture Commissioner (now retired)
Barbara Steck, Council of Fresno County Governments
John Wright, City of Clovis (now retired)

Roster of Advisory Committee Members

Hon. Judy Case, Fresno County Supervisor, District 4
Hon. Phil Larsen, Fresno County Supervisor, District 1
Hon. Rico Aguayo, Councilman, City of Fowler
Chris Acree, Sierra Club
Lee Ayers, Treetops Project
Rick Ballantyne, Fresno Local Area Formation Commission
Keith Bergthold, City of Fresno Planning Department
Tony Boren, Council of Fresno County Governments
Lynn Gorman, Fresno County Planning Department
Ryan Jacobsen, Farmer and Executive Director, Fresno County Farm Bureau
Ralph Kachadourian, City of Sanger Planning Division
Will Kettler, Fresno County Planning Department
Holly King, Farmer, Great Valley Center
Don Pauley, City of Kingsburg
Mike Prandini, San Joaquin Valley Building Industry Association
Jerry Prieto, Jr., Fresno County Agriculture Commissioner (now retired)
Jeff Roberts, Granville Homes
Darrell Schmidt, Fresno Local Area Formation Commission
Barbara Steck, Council of Fresno County Governments
Fred Swanson, Kearney Agriculture Center
Kathy Wood
John Wright, City of Clovis (now retired)
A.J. Yates, Farmer, Former Deputy Secretary, CDFA

Staff for Steering and Advisory Committees

Todd Sobrado, Council of Fresno County Governments

Factors and Data Used to Calculate Strategic Farmland Values	
Factor	Data Set
Soil Productivity	Farmland Mapping & Monitoring Program important farmland data. Points awarded as follows: Prime Farmland = 12 Farmland of Statewide Importance = 10 Unique Farmland = 8 Farmland of Local Importance = 6 Grazing land = 4 Urban land = 0
Water Availability and Cost	No empirical, countywide water data are available. As a proxy, Agriculture Commissioner Jerry Prieto and his staff mapped the county based on personal knowledge of water availability and cost. Their findings were reviewed by members of the agriculture community at meetings throughout the county. Points awarded as follows: Good water availability and affordability = 12 Marginal water = 6 Grazing land or no water = 0
Micro-climate	The one very high value crop grown in Fresno County that requires a special micro-climate is citrus. Thus, this layer focuses on this crop. Department of Water Resources crop data (2000) were used to identify areas where citrus is now grown. 1990 PRISM data were used to determine the median values for January low temperature, July high temperature, annual precipitation and relative humidity in these areas, which was assumed to define the optimum micro-climate for citrus crops. PRISM data for all other areas were then compared to the optimum conditions, with aggregate scores recalibrated to a 0 to 12 point scale with the highest scores representing the most strategic land from the standpoint of citrus production.
Environmental Sensitivity	This layer combined data for vernal pools (U.S. Fish & Wildlife Service, Holland series), other wetlands (National Wetlands Inventory) and endangered species (California Natural Diversity Database). Vernal pools and wetlands were all given a score of 0. The likelihood that endangered species are present was given a score of from 12 (little or no probability of endangered species) to 0 (very high probability). The three factors were added and the aggregate score was recalibrated on a 0 (most environmentally sensitive) to 12 (least environmentally sensitive) scale.
Urban Development Pressure	FMMP 2002 data were used to identify areas already developed for non-agricultural uses. Current 2008 city spheres of influence were identified using Council of Fresno County Governments data. All land within current spheres of influence was assumed to be earmarked for future development and, thus, not likely to remain in agricultural use. Points were awarded as follows: Land already developed or within existing spheres = 0 All other land = 12

Local Government General Plan Policies on Conserving Farmland in Fresno County

Fresno County (General Plan, 2000)

"The County sees its primary role to be the protector of prime agricultural lands … The plan seeks to protect its productive agricultural land as the county's most valuable natural resource and the historical basis of the economy." Vision Statement, p. 8

"The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities and other areas planned for such development." Agriculture & Land Use Element, Policy LU-A.1, p. 2-11

City of Clovis (General Plan, 2006)

"It is recognized that agriculture is important to the City, and the Central Valley region as a whole, reflected in the retention of selected prime agricultural lands." Agriculture, p. 6-9

"Clovis intends to achieve a community that balances open space and productive agricultural lands with urban uses." Land Use Element, p. 2-2

"Support continued agricultural use of prime agricultural lands within the region where it can be sustained at an operational scale." Land Use Element, Goal 7, p.2-9

City of Fowler [Unavailable]

City of Fresno (General Plan, 2002)

"Work cooperatively with the local agricultural industry to conserve prime farmland and respect its importance as Fresno County's base economic resource." Purpose and Goals #16, p. 3

"California's Central Valley is one of the world's premier growing regions, and the economy of this area is based primarily on agriculture. The 2025 General Plan contains major policy direction aimed at protecting the Fresno area's valuable productive agricultural land from premature and inappropriate development." Resource Conservation Element, Direction 3, p. 128

"Plan for the location and intensity of urban development in a manner that efficiently utilizes land area located within the planned urban boundary … while promoting compatibility with agricultural uses located outside the planned urban area." Resource Conservation Element, Policy G-5-b, p. 137

City of Kerman (General Plan)

"Agriculture is the primary industry in the Kerman area … agriculture should be encouraged in the Kerman area. Further, land use policies that minimize the impacts between urban and agricultural uses should be promoted." p. 2-3

"Increase overall residential densities in the City of Kerman so as to require less urbanization of surrounding agricultural lands." Policy 3

City of Kingsburg (General Plan)

"Exclusive agricultural zoning shall be continued outside the boundary of future urbanization …The protection of agricultural lands outside of the urban pattern depicted by the General Plan shall be reinforced by firm city policies not to permit the extension of sewerage and water service." p. 18

"Consideration should be given to the following factors: Agricultural preservation policies identifying prime agricultural lands within the Sphere of Influence, including provisions for guiding growth away from such lands." p. 125

City of Orange Cove (General Plan, 2005)

"Maintain Orange Cove as a small, agriculturally-oriented city surrounded by farmland. To the extent possible, ensure that Orange cove is surrounded by agricultural land zoned for large parcel agriculture." Land Use Element, Issue Two: Growth Management, Goal I, p. 2-19

"Promote Smart Growth planning principals to discourage urban sprawl and premature urbanization of agricultural land." Land Use Element, Goal III, p. 2-20.

"Land use policies that minimize the impacts between urban and agricultural uses should be promoted." Land Use Element, Issue Nine: Agricultural Lands, p. 2-41

City of Parlier (General Plan, 1998)

"The premature conversion o f producing agricultural lands to urban purposes is discouraged." Major Policies, Standards, #2, p. 2-2

"An additional issue is the preservation of prime agricultural lands and the prevention of the premature conversion of such lands to urban uses. Parlier is surrounded by prime agricultural land and much of the local economy is based on agriculture." Land Use Element, Policies and Standards, # 5, p. 4-4.

City of Reedley (Specific Plan, 2001)

"Urban growth shall be planned and executed in a manner that minimizes the impacts on agriculture and the consumption of agricultural land." Goal #3, p. 3-2

"Protection of Farmland - A primary goal of the plan is to preserve agricultural land that surrounds the community." Issue # 1, p. 3-4

City of Sanger (General Plan, 2003)

"The people of Sanger envision [a] community separated from surrounding jurisdictions by agricultural land preserved in perpetuity." p. 1-3

"Because most of the Sanger planning area is made up of prime agricultural land, urban expansion cannot occur without conversion of prime agricultural land; however, preservation of the Sanger's agricultural resources is a community priority." p. 7-5

City of Selma (General Plan, 1997)

"Selma is located in one of the most productive agricultural regions of California. The economy of Selma is primarily based on agriculture ... Therefore, the City must carefully protect agricultural lands, while providing for the growth necessary to sustain a vibrant community." Land Use Element, p. 16

"To the fullest degree possible, prime agricultural land shall be preserved for agricultural uses only; Policy 3.6 Agricultural lands which currently produce, or have the potential to produce, specialty crops for which the area is uniquely suited, shall be protected from encroachment by urban uses." Open Space and Conservation Element, Policy 3.5, p. 5

Current Land Development Capacity of Cities in Fresno County

City	Land in City Limits	Land in Sphere of Influence	Land In Sphere Outside City Limit	Estimated 2008 Population	Current City People Per Acre (PPA)	Avg Annual Popl Incr	Annual Acres Developed @ Current City PPA	Years of Capacity	
								At Current Average Local Efficiency (6.5 PPA)	At County Average Efficiency 1990-2004 (9.4 PPA)
Clovis	14,852	20,249	5,397	94,289	6.3	3,222	507	11	16
Fowler	1,603	4,474	2,871	5,573	3.5	191	55	52	141
Selma	3,243	8,289	5,046	23,286	7.2	480	67	75	99
Kingsburg	1,789	4,019	2,230	11,259	6.3	254	40	55	83
Firebaugh	2,368	3,411	1,043	6,812	2.9	134	46	22	73
Parlier	1,423	2,947	1,524	13,326	9.4	273	29	52	53
Sanger	3,650	6,873	3,223	25,404	7.0	809	116	28	37
Mendota	2,096	2,899	803	9,788	4.7	237	51	16	32
Coalinga	3,812	5,154	1,342	19,064	5.0	408	82	16	31
Reedley	3,209	4,723	1,514	25,587	8.0	604	76	20	24
San Joaquin	710	962	252	4,062	5.7	99	17	15	24
Kerman	2,061	3,092	1,031	13,880	6.7	667	99	10	15
Orange Cove	1,150	1,641	491	10,775	9.4	382	41	12	12
Huron	1,041	1,170	129	7,554	7.3	156	21	6	8
Fresno	71,475	100,415	28,940	486,171	6.8	7,315	1,075	27	37
Smaller Cities	28,155	49,654	21,499	176,370	6.3	4,692	749	29	43
All Cities	114,482	170,318	55,836	756,830	6.6	15,229	2,304	24	34

Sources: Fresno Local Agency Formation Commission, U.S. Census of Population

American Farmland Trust

Fresno Model Farmland Conservation Program
Discussion & Decision Matrix

Challenges & Causes of Farmland Loss	Potential Conservation Strategies & Solutions	Examples
Population Growth Anticipated population growth is projected to require the development of almost 100,000 acres by 2050 at current build-out densities. (*Fresno COG Blueprint Base Case Scenario*, 2008) This would include 30,000 acres of high quality farmland outside existing spheres of influence that is considered highly strategic for agriculture. (Most to the rest of the land that would be converted is also high quality farmland, but is within spheres and is unlikely to remain in agriculture. Our definition, thus, considers it less strategic from the standpoint of conserving farmland by limiting development.)	It is not population growth *per se*, but how it is managed that will determine how much strategic farmland is lost and how long it will take to build out all the land within existing spheres of influence. ***"Conservation" means not only keeping the best farmland undeveloped, but also making the wisest, most efficient use of farmland that will be developed.***	
Development Efficiency The average build-out density of urban development in Fresno County and its cities since 1990 is only about 9 people per gross acre. This contrasts with 12 people per acre in Stanislaus County and 20 in Sacramento County. (*Paving Paradise*, 2007) Obstacles to more efficient development include uncertain market demand, resistance to higher density from existing communities, lack of public transportation options, rigid zoning classifications, regulatory constraints, lack of local government commitment and support. (*Landscape of Choice*, 1998; *San Joaquin Valley Growth Response Study*, 2002)	Increase residential densities and commercial FARs, reduce street widths and parking requirements, promote mixed-use transit-oriented development, urban infill and retro-fitting. *Landscape of Choice* includes many recommendations. *San Joaquin Valley Growth Response Study, Phase III* (2004) suggested that compact housing could increase from 4 to 11 percent of households by 2034. In 2005, the City of Fresno adopted a new mixed-use development ordinance that may help increase commercial land use efficiency. (Fresno Municipal Code, Sec. 12-105-R) Its 2002 general plan aims to increase residential efficiency from about 4 units per acre to 6-7 units. Solutions for smaller cities may be different than for City of Fresno.	Sacramento Council of Governments Blueprint and implementation; proposed City of Fresno SEGA.

Cities Surrounded by Strategic Farmland The fact that so many cities are located in the midst of the county's most strategic farmland, particularly in the so-called "Golden Triangle," poses perhaps the biggest challenge to the conservation of farmland. (Strategic Farmland Map, 2008) Most of these cities want to grow, but do not want to grow together. (*Land Buffer Task Force Survey,* 2008) Their spheres of influence are large enough to accommodate anticipated development through 2050 at moderately higher densities than exist today. (*Fresno COG Blueprint Scenario*, 2008) Most cities desire land buffers of farmland to separate them from their neighbors, but are unsure about how to establish them. (*Land Buffer Task Force*).	No-build buffer areas around cities, ½ to 1 mile wide, just outside spheres of influence. (There are about 70,000 acres within ½ mile of existing spheres, 147,000 acres within one mile, per Fresno COG analysis) Many options for configuring, establishing and, if necessary, terminating limitations on development within buffers. For example, could require developers inside spheres to mitigate by acquiring conservation easements or long-term agreements in buffer zone; offering landowners in buffer zone financial incentives for such agreements. Agreements could piggyback on 20-year Williamson ag security area contracts (which offer 35% property tax abatements) with an additional compensation package including greater local tax abatement, annual cash payments, bonds or tax-free securitizable contracts, etc. Termination of agreements could occur after minimum 30-year period and/or if and when conditions related to build-out of sphere are met, possibly as determined under a city-county MOU.	Easements acquired by AFT on west side of City of Madera and by Monterey Conservancy outside spheres of Gonzalez, King City and other Salinas Valley cities; Boulder, CO
	To add additional value, both to growers and communities, these buffers could become local food belts devoted primarily to production for direct consumer sales.	Proposed specific plan for City of Fresno Southeast Growth Area.
	Building setbacks and physical buffers such as windbreaks and other plantings between new development and farmland outside spheres to minimize potential for conflicting land uses. Should be placed on the land to be subdivided, not the farmland to remain in agriculture. County general plan Program LU-A.C requires county to issue guidelines for setbacks & buffers.	Stanislaus County; Monterey County
	Urban growth boundaries established by elected officials and/or ballot measure, typically of limited duration, e.g., 20 years	Napa, Sonoma, Ventura, Fairfield, Stanislaus

Land Price Inflation Most strategic farmland is zoned to allow one dwelling on a 20-acre minimum parcel. This was apparently designed to accommodate small farms on land with good soils and abundant water. But it now works at cross-purposes with keeping land in agriculture where demand for large-lot rural residences inflates the price of farmland to levels that commercial agriculture cannot afford. (American Society of Farm Managers & Rural Appraisers, *2007 Agricultural Land Values Report*)	Increase minimum lot size for development in strategic agricultural areas to at least 40 acres to reflect modern agricultural viability needs. County general plan (LU-A.6) permits this to "ensure viability of agricultural operations." County general plan Program (LU-A.B) calls for county to evaluate "minimum parcel sizes necessary for sustained agricultural productivity." Switch to area-based allocation zoning wherein residential development entitlement is still based on minimum acreage, e.g., 20 ac per dwelling, but there is also a maximum lot size, e.g., 2 acres. This should separate the residential value of the property from its agricultural value, keeping the land affordable for farming. This will work best with a requirement that the remainder of the property, 18 acres in the example, be placed under conservation easement to prevent further subdivision. A potential drawback is that this may encourage more rural residences than large-lot zoning, since building lots presumably will be less expensive. See Ranchettes, below, for potential counter measures.	Sacramento County (40 ac); Stanislaus County (2 DU per 40 ac); Marin County (60 ac) Area-based allocation zoning is fairly common on the East Coast, e.g., Montgomery County, MD; Lancaster and York Counties, PA
Rural Ranchettes One-fourth of all land now devoted to developed uses is in rural residential parcels of 1½ to 10 acres, and there is almost certainly more land in larger ranchettes. Steps have been taken to discourage further rural residential development, but there remains a large number of potential large-lot rural development parcels. Creation of small-acreage homesites and gift-deeded parcels to family members on agriculturally-zoned land, while intended in the short term to support family farming operations, may contribute in the long term to land fragmentation.	Lot configuration and road frontage requirements Required clustering of rural residences Transfer of development credits, possibly with density bonus, into specifically-designated "ranchette" zones Impact fees proportional to higher cost of providing county services to remote residences Revise rules governing creation of additional family homesites on strategic farmland	Sutter County Montgomery County, MD

Land Use Patterns that Perpetuate Exclusive Reliance on Automobile Transportation Fresno County and its neighbors in the San Joaquin Valley are fundamentally replicating the spread-out, auto-dependent land use-transportation relationship of Southern California that consumed most of the farmland in Los Angeles and Orange Counties.	Metro Rural Loop (MRL) is being planned as a multi-modal transportation system that will significantly reduce the consumption of strategic farmland by taking less land for rights-of-way and by serving as a magnet for more efficient, transit-oriented development. In fact, preservation of designated strategic farmland between transportation corridors is part of the concept. To successfully achieve its goals, MRL may require a comprehensive county-cities agreement to maintain the land use *status quo* while the system is being designed and implemented. MRL right-of-way acquisitions to be mitigated with accompany conservation easements on neighboring land. City of Fresno Southeast Growth Area (SEGA) is being planned around transit-served neighborhoods	County-city agreement in Yolo County Twin Cities metropolitan land use-transportation agreement
Agricultural Economy The market price of many of Fresno County's leading crops has been flat for years, while the cost of production has risen. Growers need additional options and opportunities to increase their net income – without selling land for development that could jeopardize neighboring agricultural operations.	Agriculture elements in all city general plans Explore green payments and credits for ecosystem services such as carbon sequestration, air and water quality improvement, etc. Expand the market for locally-produced food and other niche markets Payments or tax credits to offset cost of environmental compliance, e.g., diesel retrofit Promote agri-tourism Strategic plan for agriculture	Stanislaus County AB 32 Capay Valley Grown, Yolo County EQIP Loudoun County, VA San Diego County, State of Maryland

Water Irrigation water supplies are increasingly problematic and costly. Surface water is interruptible and forces greater reliance on more costly ground water sources. Groundwater is unregulated and is being drawn down in some places, making pumping it even more expensive. Urban demand for both surface and ground water also has the potential to make agricultural water more costly and less reliable.	CEQA assessment of impacts of new development on water usage, availability and quality; mitigation fees for permanent diversion of water to urban uses that is not recharged; additional water storage; agricultural and urban water conservation	
Funding for Conservation Options There is now no real source of funding for conservation easements or other payments as incentives for making long-term commitments of land to agricultural use. To the extent such measures are to be used, e.g., in establishing land buffers, a source will be needed.	Funding from established federal and state programs is available but amount is not large compared with demand from established programs. Requires establishment of private land trust. Locally-established conservation district funded with sales or other tax increment Farmland mitigation requirements and/or fees on new development and/or future land transfers	Federal Farm & Ranchland Protection Act California Farmland Conservancy Program; Sonoma Open Space District Yolo, San Joaquin, Stanislaus Counties; cities of Stockton, Mateca, Tracy, Lathrop, Davis & South Livermore; Martis Valley

Summary of Discussion at
Agricultural Producer Meetings

To sample the opinions of agricultural producers as input for the Fresno Model Farmland Conservation Program, AFT and the Fresno County Farm Bureau hosted six breakfast and lunch meetings at cafes and coffee shops in Caruthers, Fresno, Kerman, Reedley, Sanger and Selma on January 16-18, 2008. These notes document highlights, general themes and shared sentiments of a majority of participants. A total of 27 farmers and ranchers participated.

Significant issues identified by farmers included growth pressure and nuisance complaints from new neighbors, competition for land and water, water quality and profitability.

Growth Pressure and Nuisance Complaints

Farmers identified growth pressure as a significant threat to agriculture, saying that the "majority of cities are going full blast into development." Some participants were concerned that the proposed high-speed rail will result in more urban growth. Others report that city councils' efforts to extend urban-spheres-of influence have led to the annexation of farmland, even properties under the Williamson Act.

Growth pressure comes in many forms and from many sources. School siting was brought up as a considerable problem because schools may locate wherever they choose. Not only does this consume a lot of farmland, but it increases nuisance complaints and drives more growth into rural areas. As a result, farmers have to adapt their normal agricultural practices, such as no longer being able to spray during the day.

Farmers reported that the construction of highway 180 to I-5 cut across ranches. They pointed out that people coming out from the city of Fresno to build big houses find out they don't like commuting into the sun in the morning and back into the sun in the evening. Though few people commute to the Bay Area, people are retiring from there and moving to Fresno to buy 20 acres of farmland. This type of fragmentation has changed the character of the area with small hobby ranchettes, less community feeling, an increase in rented properties and abandonment of active ranchland. These patterns appear to drive farmers to sell out, especially near the urban edges.

A new gas line from Visalia to run the PG&E power station will consume many acres of land with overhead power lines, eliminating almonds, walnuts and other tree crops, which can't be grown under the lines.

Much of the growth pressure is fragmented, characterized by many participants as "leapfrog development." Several farmers expressed concern about the Metro Rural Loop proposal, suggesting that every intersection will become a magnet for development and will engender more leapfrog development. Furthermore, ranchettes, some retaining almond production or vineyards on 5-acre deeded parcels, are squeezing out into the Kingsburg area.

To fix past ranchette development will be expensive and difficult, and farmers in many regions expressed frustration that even when protective zoning laws are in place, there is no local follow-up on new houses, trailers and modular homes, even if they are violating zoning.

Competition for Land

It is not just that the cities are growing, but that the expansion is occurring on the most productive soils. As one farmer said, "urban growth is taking the best ground we have." According to on participant, growth around Sanger, "the fruit basket of the world," is all occurring on prime and unique farmland.

Land speculation is driving up property values and making land less affordable for agricultural production. As one farmer said, "The price of land is what kills us." Participants cited developers from Southern California buying good farmland at high prices and an influx of foreign investors buying strategic locations around towns speculating that future expansion will increase land values. This speculation already has increased adjacent land values, not only making it harder to buy land but also harder for farmers to say "No" to selling.

Higher land values also increase property taxes. The taxable value of properties fluctuates based on commodity sales. Farmers report that values go up immediately in a good year but take a long time to go down during bad years. The say that the Williamson Act helps but it is not a cure all. Some said the Williamson Act doesn't have much effect except for rangeland. Others worried that the Williamson Act will be gone in five years because every governor says he's going to cut the program. Furthermore, farmers report that little of the farmland around cities is under the Act because the benefits are not great enough. They said the land is more valuable without it, and they can make up the difference in taxes when they sell.

Land around urban areas has a higher tax base than on the western side of the county. Farmers farther out did not cite taxes as much of a problem, but those around the cities did. In particular, farmers reported dramatic increases in the school tax rate, which they argued did not seem right because "trees and vines don't go to school."

Competition for Water

Competition for water was cited as an even greater threat than competition for land. Land with water gets developed first. The cities have their arms out, want to grow and increase their tax base, with the result that water contracts have been pinched for too long. Farmers' frustration is summed up by the statement that "water flows towards money." Many farmers believe that if urban areas want the water, they have the power and money to take it. There is also concern that aggregate mining on the east side of the county could take a lot of water from agriculture.

The supply of water for irrigation is a complex and emotional issue. On average, there has been less snow resulting in less melt water overall. On the west side of the county, an estimated 30 percent of the water allocation goes to support fish habitat. In addition, dams and reservoirs originally put in to provide water for farmers now are being used for new development. As one farmer noted, there are too many "straws" being put into the rivers and reducing the available water supply. Farmers feel that they are already conserving water but new policies will require more conservation. They also begrudge that any water they conserve ends up going to urban use.

Urban expansion not only limits water supply but also diminishes water quality. Farmers report that urban growth on the east side of the county is degrading the aquifers "downstream" farther west. Urban water

demands are drawing down the water table and changing the local hydrology, as evidenced by the City of Fresno sinking into a large bowl.

While Fresno County has some of the best water in the world, that quality is threatened by lack of recharge, overdrawing from surface and aquifer supplies, and the introduction of contaminants. The water has always been alkaline but is becoming increasingly acidic as more is pumped from the river. Since alkaline water is better for fruit this is a problem for this large industry. Without surface water recharge, the water table is dropping. In the western part of the county water quality is more problematic with salt, boron and selenium contamination, and even a little bit of radioactivity.

Farmers also mentioned other water issues. The depth of water for lagoons is driving out dairy Water from the sewer farm is high in nitrates and phosphates and is currently pumped back to farms. It is good water but can't be used for much except alfalfa for horses. If this water supply has to be cleaned up for urban use, it will have to be put in a very expensive treatment plant. Water is getting more expensive as competition increases. There is concern that agricultural water will be metered. As one producer put it, "Once you open that barn door no telling where it stops."

Agricultural Economic Viability

The economic viability of agriculture in Fresno County is affected by a variety of issues, from the prices received for commodities to the costs of environmental compliance. While specifically mentioned less often by farmers, agricultural viability is inherently tied to the other issues already mentioned, the competition for land and water supply. For example, many farmers sell farmland to buy other farmland to keep in business, and if they aren't going to make money on the property, they are going to sell it.

Environmental compliance and environmental constraints impact farmers. State and federal environmental regulations related to water and species protection are driving up costs and seem unfair to the farmers. They feel that they are running out of energy and water and that "hard core, radical environmentalists don't want any agriculture." There is regulatory uncertainty; they don't know what is going to turn up in the future, or even in the next few years. Another environmental requirement is the need to retrofit all trucks to meet air quality standards. Farms close to town can have trouble with spraying, since wind can only be blowing in certain direction at certain speed, so as a consequence farmers are quitting. Farming near a school is more difficult because of drifting spray. There are limitations on spraying because of a neighbor's swimming pool. Any time they spray, people in a new settlement next door have to be notified.

The financial dynamics of day-to-day business operations affect agricultural viability. Many farmers have and need other income to supplement farming. As for global competition, farmers did not think that NAFTA has been much of an issue since the off-season crops are not competing with peak harvest season crops. They feel that farmers are subsidized overseas much more substantially. Food safety issues have been more prevalent. Farms can't hire kids to work because of liability and labor laws, and then when "they get old enough to work they don't want to!" It will be a challenge to get the next generation into farming If the next generation does not come into farming, farms will consolidate and become bigger, buying out the smaller family-owned and operated farms. Low commodity prices combined with high input costs, such as fuel, are resulting in low net profits. This is a general issue among all commodities.

Participants

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Robert Gonzales
Dan Habib
Donna Hacker
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John Pestorich
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John Renn
Margaret Sandbothe
Fred Schnitzler
Jamie Silva
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Summary of Discussion at Public Input Sessions

To sample public opinion on issues relevant to the Model Farmland Conservation Program, American Farmland Trust and Fresno COG organized a series of public input sessions, including a series of six small roundtable meetings targeting the County's major agricultural interests, and two larger public meetings. This document highlights the discussion among about 60 participants at the two public meetings held in Parlier and the City of Fresno on January 16-17, 2008. At the meetings, participants were asked about what farmland should receive the highest priority for conservation, their vision for the future of Fresno County, the challenges to be faced in achieving that vision, and solutions to those challenges.

Strategic Farmland

Each meeting opened with a presentation of maps depicting characteristics of Fresno County's farmland: soil fertility, water availability, micro climates, environmentally sensitive areas, rural land most at risk from fragmentation, and land most likely to be converted to urban development. Following the presentations, participants were asked to rank the factors that they felt should be used in prioritizing farmland conservation. The number of votes tallied from both meetings is shown in the chart below.

Rank >	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Soils	26	13	5	4	4	1			
Water	19	21	11	4	0	1			
Urban Pressure	7	3	10	5	13	16			
Microclimate	4	4	10	13	9	12			1
Env. Sensitivity	2	5	9	20	9	8			
Fragmentation	0	6	7	6	17	15	3		

When the raw totals are weighted (9 points for 1st, 8 for 2nd, etc.), soils and water emerge as the leading factors (400 points+) with urban pressure, micro-climate and environmental sensitivity each ranking slightly lower (300+ points), and land fragmentation scoring somewhat lower than that. Because the scores were all relatively close, the factors were given equal weight in compiling the strategic farmland map, with the exception of land fragmentation.

Exploring the Issues

Participants heard from AFT California Director Edward Thompson, Jr., and from Fresno County Agriculture Commissioner Jerry Prieto, Jr., who described the land use changes currently occurring in Fresno County. Following the presentations and a round of clarifying discussion, participants were asked to consider three questions and to share their responses with the group:

- What is your vision of the future for Fresno County?
- What do you see as the major challenges for achieving your vision?
- What are possible solutions for addressing these challenges?

Vision for the Future

When participants were asked to describe their vision of the future for Fresno County, a number of common themes emerged.

Development should be compatible with farming

Preserving the county's agricultural heritage while accommodating growth – thus, sustaining the viability of family farming – was a vision voiced by many. Greater urban density, growth as infill rather than greenfields development, and other proven smart growth strategies were seen as ways to relieve the development pressure on farmland and prevent fragmentation. Effective community planning, good public transportation systems, clearly defined growth boundaries that ensured adequate distance between development and agriculture, and educated local officials and decision makers who would enforce the boundary designations were also envisioned.

Natural resources should be protected

Protecting the integrity of the agricultural resource – preserving production yield while being respectful of the other natural values of the land – was another goal for many, who felt an inherent stewardship obligation in living on the best farmland in the nation. As one participant stated, "The good Lord gave us these soils, water, and land to farm, and they should be protected and farmed in perpetuity for all mankind."

Farming should remain economically viabile

For most participants, preserving the agricultural resource also meant maintaining it as an economic engine for the county. Sustaining farmland production also meant the ability to transport in an environmentally viable manner. Some saw effective public education that built an appreciation among all Fresno County residents for the benefits to local agriculture, ensuring that farming remained an absolute for county prosperity. Economic viability and a supportive public were also part of the vision for ensuring a next generation of farmers, where young people could afford to enter and remain in farming because the community valued good food over a cheap food policy. Compensation of farmers for open space and ecosystem values was also envisioned, tied to the will of the consuming public to support agriculture and preserve and support small communities.

Agriculture seen as an issue of national security

A final aspect of the agricultural vision was the idea that agriculture in the Central Valley is a strategic national asset. The federal and state governments should help sustain local agriculture for future generations to make sure the nation can feed itself. This would include a commitment to preserve the land, keep local agriculture viable against global competition and make sure regulations on agriculture are reasonable. People also wanted to strengthen the voice that the Valley has in Sacramento and Washington, D.C.

Challenges

Participants were asked to describe the challenges they saw to achieving the vision. Not surprisingly, the challenges mirrored many of the vision elements. Again, a number of common themes emerged.

Population growth and urbanization

Increasing population – by some estimates, 50 million people in California by 2050 – was seen as the real challenge to sustaining viable agriculture. With a million or more people expected to move into the Valley, the question of where to put them loomed large. Urbanization was seen as nearing the tipping point to where cities are too close together, accelerating the disintegration of agriculture in between. If prime agricultural land is preserved, development could move into the ranch lands in the foothills, resulting in people spending more time in their cars.

Environmental issues

Another concern is that urban growth is diminishing environmental quality. Air and water quality issues are not adequately considered in land use planning. But some saw incompatible farming techniques as contributing to the degradation of land and water.

Lack of planning

With a dynamic urban rural interface, people found it increasingly difficult to know where the boundaries of growth should be, but agreed that integrated strategic planning was lacking. Planning is occurring in the context of current circumstances, rather than with the future in mind. For example, the Metro Rural Loop is supposedly based upon a 100-year plan, but without solid projections of transportation needs that far out in time. The location of schools was also seen as problematic. School districts are not engaged in the planning process, they can locate wherever they want and become magnets for residential development.

Lack of political will

Poor planning was seen as closely tied to the lack of local political will to address the real issues – lots of talk, but little meaningful action on sustaining agriculture. Current decisions are made piecemeal, without an integrated, holistic approach. So urban boundaries keep encroaching on the best quality farmland. Land is lost through these small variances because weak local officials and legislative bodies don't have a strong legal basis for stopping development. "Fiscalization" of land use – balancing budgets based on sales tax generation and impact and developer fees – was seen as another shortcoming. Disruptive leadership transitions were also seen as problematic.

Uncoordinated regulation

Another challenge is uncoordinated regulations, the result of too many entities making policies independently of one another. As such, regulations were seen as more likely to hinder rather than help agriculture's ability to remain economically viable. Too little attention is being paid to avoiding unintended consequences of regulation. Given that farmland near growth areas is valued significantly higher for development than for agriculture, some farmers whose costs increase due to regulations may prefer to sell out. One example of regulation that helps farmers keep in business is land use regulation. But some see it as a denial of their right to sell land for development.

Increasing economic challenges

Some saw regulations as hurting local growers' ability to compete against foreign competition, noting that in 2005, the U.S. became a net importer of food for the first time in its history. As growers try to keep up with applicable regulations – labor law, environmental law, permits – as well as other growing costs of doing business, farm size needs to increase so growers can afford specialized advice in each of these areas. However, increasing farm size may be more difficult as land becomes subdivided into smaller and smaller parcels. Others saw big consolidated operations as a problem, taking over the smaller farms and depressing prices in an effort to out-compete imports. And all saw lower commodity prices as a disincentive for keeping land in agriculture.

Lack of public support

Low prices were also seen as a sign of the public's lack of appreciation of agriculture. People don't make the connection between the farm and their food, so they don't understand the importance of preserving agricultural land and buying local. The lack of a world class farmer's market in Fresno County was seen as evidence of this. As a result, the county is losing its next generation of farmers – current farmers are getting out of agriculture and young people not getting in.

<u>Solutions</u>

Given the visions and challenges articulated by participants, they were asked to describe potential solutions that the County could employ for sustaining agriculture.

Preserve the resource

Preserving the best quality farmlands – those with good soils, water access, economic viability – while keeping land affordable for growers was a priority for participants. Holistic planning was called for to drive large, integrated solutions that addressed all the Valley's resources, including land, air, and water. Reducing the number of governmental entities having a say in what can or cannot be done was also called for, as was challenging government to more effectively use tools that improve land use decisions. One tool cited was the Rural Valley Lands Plan that Tulare County has used since the 1970s to assess whether land is ready to be developed for urban uses. Mitigation

strategies were also encouraged, such as protecting an acre of agricultural land for each acre of land developed.

Embrace new holistic development models

Reinforcing the belief that solutions must be holistic, participants called for a bigger vision for the Valley's future development with a political commitment to implement it. One goal was to provide certainty to the development community, cities, and towns that the governments can provide needed services while ensuring farmers that they have a future in farming. This will require planning to be better and more consistent – for instance, considering all aspects needed to maintain and support agricultural viability – coupled with elected and appointed officials willing to stay the course and support plans for the long term. Effective buffers between urban and agricultural uses were called for; One idea was to establish permanent visible development boundaries through site-appropriate plantings.

Greater optimism was also called for. Rather than saying why things won't work, leaders were asked to identify core factors, figure out what needs to happen to achieve desired goals, and plan accordingly. Coordinating the Model Farmland Conservation Program with the Blueprint process and creating transferable and replicable processes was encouraged. Suggestions included embracing proven "smart growth" strategies such as increased infill, compact development that builds up instead of out, laws to guide school placement consistent with agricultural priorities, and enhanced transportation planning.

Educate the public

Education was seen as a key strategy for creating the public will to devise and sustain needed changes. Citing recycling as a model of how people's behavior can be changed for the better, a campaign was called for to raise awareness of local agricultural issues and reshape perceptions and priorities. Maps were seen as an effective way to demonstrate where farmland should be and where development should go; the maps could also serve as a tool in building the political will to stick to designated boundaries. The education campaign could also support "buy local" initiatives and help create interest among young people to pursue careers in agriculture.

Create new incentives for growers

Improving incentives for growers was a topic that generated many proposed solutions. Financial incentives took the form of direct compensation to growers for eco-services, tax breaks and credits for such things as effective land conservation and revising property taxes based on the number of people living on the property. Other solutions included changing land use policies to create incentives for retail agriculture, and giving farmers new ways to market and increase profitability on the demand side, such as more farmers' markets, rather than making bigger farms the only means to being economically viable. Other economic incentives might include co-ops and communal farming and ownership. Participants also called for continuation of the Williamson Act, increased use of

conservation easements, and legislation that maintains the right to farm and preserves farmland by eliminating zoning variances.

Innovate

Participants called for time and energy to be spent in identifying new ways of doing things such as preserving resource lands, improving water storage and conservation, and enhancing ground water development, developing green energy from methane digesters using dairy waste and improving farming techniques to be more environmentally sustainable. New strategies for public involvement in decision making, and reconfiguring how cities can raise additional revenue to get away from the fiscalization dilemma were also recommended. A citizens' movement was proposed to develop a world class system of farmers' markets, including zoning revisions to reduce barriers to markets and farm-based revenue from agri-tourism. Innovations were also sought to reduce on-farm costs, generate creative financing approaches to allow new farmers to enter agriculture, and improve transportation technology to mitigate air quality impacts.