Proceedings From:

NEW RURALISM & OTHER URBAN–RURAL SUSTAINABILITY STRATEGIES

Public Symposium • University of California, Berkeley • April 5–6, 2007
# New Ruralism Symposium

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The Agriculture at the Metropolitan Edge (AME) program was initiated in the fall 2006 by UC Berkeley’s Center for Global Metropolitan Studies, in recognition of the fact that agriculture is an integral system for sustaining metropolitan regions. The AME program engages faculty, students and practitioners in an in-depth investigation of systems- and place-based issues affecting the urban/rural interface. Through research projects, symposia and publications, the program explores periurban agriculture as one of the basic frameworks for understanding and managing the growth of metropolitan regions worldwide.

The first major project of AME was a symposium, “New Ruralism & Other Urban-Rural Sustainability Strategies”, held at UC Berkeley on April 5 – 6, 2007. The Symposium brought together over 200 leading policy makers, scholars, farmers, planners, and activists involved in bridging sustainable agriculture and smart growth. The starting point for the Symposium was the idea that the health and sustainability of our urban areas depends on the vitality and sustainability of the surrounding rural region. In ten interactive sessions, presenters and participants identified research needs, best practices, and policies – as well as multiple challenges – for advancing urban-rural linkages.

Here were some of the key findings:

- **The urban-rural dichotomy doesn’t work any more.** Instead of a hard edge separating discrete interests and uses, the new ‘cutting edge’ is a complex set of interactions and relationships from city center to heartland.

- **Payments for environmental services provided by sustainable agriculture are feasible given specific conditions.** Incentives and compensation must be targeted, standardized, and must optimize benefits in order to make the best use of limited public resources and demanding private markets.
• **The most promising land use policies for preserving prime farmland emphasize multifunctionality.** Preserving California’s prime farmland while accommodating the projected population growth of 15 million people in the next 20 years requires policies shaped to achieve multiple environmental, economic, and social goals.

• **Public health concerns are a major impetus for linked urban and rural sustainability.** Negative impacts of industrialized agriculture and food systems affect both urban and rural sectors, and include diet-related health problems, inadequate access to fresh nutritious food in low-income communities, and unhealthy, unfair working conditions for farm labor. These problems are linked and so must be the solutions.

• **Regional food and agriculture systems help provide resiliency to metropolitan regions.** Strengthening regional agriculture can mean enhancing economic viability of farms, natural resources, and demographic diversity (especially farmers). As a result, metropolitan regions can be more resilient in the face of global market vicissitudes and climate variability. Local food production can also help reduce greenhouse emissions, a main cause of climate change.

• **Strategic partnerships and interdisciplinary collaborations are key to addressing complex urban-rural interface issues.** Researchers, practitioners, and policy makers are working together more on whole systems problems. However, more incentives and more opportunities are needed.

Building on the Symposium findings and on feedback from participants, the AME program is planning several initiatives for the 2007-08 academic year. **Within UC Berkeley,** AME and the Global Metropolitan Studies Center in partnership with the College of Natural Resources, are pursuing a grant to establish the study of agriculture in urban-influenced areas as a new ‘Core Issue’ area for the UC system wide Division of Agriculture and Natural Resources.

The research priority is to develop a planning framework and assessment tool for multifunctional, urban-influenced, agricultural land use that can be linked with existing frameworks used for urban planning and natural resources assessment. This area of research is being developed by the AME
program in collaboration with the Sacramento Council of Governments which wants a foundation on which to build a ‘greenprint’ as a corollary to its Urban Land Use and Transportation Plan Blueprint. It is also of interest to other regional planning organizations that are seeking more finely calibrated criteria to identify priority agricultural lands for permanent conservation.

The preliminary idea for the 2008 Symposium is to focus on case studies about places that demonstrate some measure of synergistic urban-rural sustainability (with scales ranging from rural community to metro/region). Each session will profile a specific place from a series of perspectives: social/demographic, environmental, agricultural economics and viability, and policy context. This setting will also allow us to showcase our preliminary work on developing an urban/rural planning framework.

The AME program looks forward to working closely with faculty affiliates of the UC Berkeley Global Metropolitan Studies Center and to engaging with other researchers and practitioners to make UC Berkeley a leading center for the study of agricultural planning.

These informal proceedings resulted from the desire of participants to have a record of Symposium events and presenters. Included are summaries of many of the presentations given, some in document form, some in poster form, and some in Power Point format. We trust you will find the proceedings useful and easy to navigate.
AGRICULTURE AT THE METROPOLITAN EDGE

New Ruralism & Other Urban-Rural Sustainability Strategies
Public Symposium • University of California, Berkeley • April 5-6, 2007

THURSDAY, APRIL 5TH

9:00am - 9:15am: Official Welcome
Dean Harrison Fraker, College of Environmental Design, UC Berkeley.
Introduction and Overview of Conference.
Sibella Kraus, Director, Agriculture at the Metropolitan Edge, UC Berkeley

9:15am - 10:45am Opening Plenary
Three speakers establish symposium purpose and vision, and set urban and rural contexts of what we know and what we need to know.

Moderator: Elizabeth Deakin, Co-Director, Global Metropolitan Studies Initiative, Professor UC Berkeley, City & Regional Planning and Urban Design

• Tom Tomich, Director, UC Davis Agriculture Sustainability Institute, and Director, UC Sustainable Agriculture Research and Education Center (SAREP) – Why Focus “at the edge”?

• Gary Patton, Executive Director, Planning and Conservation League

• Carl Anthony, Ford Foundation Senior Fellow; former Ford Foundation Program Officer, and Director of the Foundation’s Sustainable Metropolitan Communities Initiative

11:00am - 12:30pm Agriculture and Food Policies
An exploration of leading agriculture and food policies and programs with a focus on those most relevant to the urban-rural interface.

Moderator: Glenda Humiston, Ph.D. Candidate, UC Berkeley, Environmental Science, Policy and Management, - European Food and Agricultural Policies

• Ed Thompson, California State Director & Senior Associate, American Farmland Trust - U.S. Agricultural Policy: Challenges and Opportunities for Preserving Urban Edge Agriculture
• Susan Clark¹, Executive Director, Columbia Foundation; Founding Chair, Roots of Change Fund - *The New Mainstream Food and Farming System: A Vivid Picture of California’s Food System in 2030*

• Andy Fisher, Executive Director, Community Food Security Coalition - *Community and Regional Food Policy Guide for the APA*

12:30pm - 1:30pm Lunch
Speaker - A.G. Kawamura, Secretary, California Department of Food and Agriculture - *Future of California Agriculture: Challenges and Opportunities*; Introduced by Susan Clark

1:45 pm – 3:15pm *Environmental Services and Impacts of Urban Edge Agriculture*
Approaches for assessing and monetizing environmental functions and impacts of ecological urban-edge agriculture.

Moderator: Lynn Huntsinger, Professor, Environmental Science, Policy & Management, UC Berkeley

• Claire Kremen, Assistant Professor, UC Berkeley, Environmental Science, Policy and Management - *Relationship Between Land Use Practices, Wild Bee Communities and Pollination Services*¹

• David Zilberman, Professor, UC Berkeley, Agriculture and Resource Economics - *Markets for Environmental Services*²

• Steve Shaffer, Director, California Department of Food and Agriculture, Office of Agriculture and Environmental Policy - *Emerging Trend of Certification of Sustainable Practices; Multiple Environmental Services of Farmland*

• Jo Ann Baumgartner², Executive Director, WildFarm Alliance; Author, “Farming with the Wild” - *Helping Farmers Incorporate Conservation Practices in their Farms and Watersheds: Models & Resources*²

¹ Presented in place of Michael Dimock, who was unable to attend
² Presented in place of Dan Imhoff, who was unable to attend
3:30 pm - 5:005pm *Urban Edge Land Use Policies and Economics*
Presentations on opportunities and challenges for continued agricultural activity at the metropolitan edge.

Moderator: **Dick Walker**, Chair, California Studies Center UC Berkeley

- **John Landis**, Professor, UC Berkeley, City & Regional Planning - *Farmland Loss in California: Past Trends, Future Projections, Planning and Policy Responses*

- **Tim Duane**, Associate Professor, UC Berkeley, Landscape Architecture & Environmental Planning, and City & Regional Planning - *Maximizing the Public Benefits of Agricultural Conservation Easements*

- **Andrea MacKenzie**, General Manager, Sonoma County Agricultural Preservation and Open Space District - *Land Conservation & Defining the Urban Edge*

- **Holly King**, Director of Agricultural Programs, Great Valley Center - *On the Ground in the Central Valley*

5:30pm - 7:00pm *Bay Area Buy Fresh, Buy Local & Slow Food Reception.*
Poster Session featuring work from academics, design professionals, and activists.

7:00pm - 9:00pm *Public Lecture – Yolo County Case Study - The Making of an Urban-Rural Place*

Moderator: **Donlyn Lyndon**, Eva Li Professor Emeritus of Architecture and Urban Design, UC Berkeley; Editor, *Places Journal*

Speakers:

- **Richard Rominger**, Farmer, Rominger Farms; former Secretary, California Department of Food and Agriculture; former Undersecretary, USDA

- **Mike McKeever**, Executive Director, Sacramento Council of Governments (SACOG)

- **Paul Muller**, Co-Owner, Full Belly Farm
Christopher Cabaldon, Mayor, City of West Sacramento

Rick Landon, Yolo County Agriculture Commissioner

Mitch Sears, Open Space Planner, City of Davis

FRIDAY, APRIL 6TH

9:00am - 10:45am Private Sector Roles
Opportunities and challenges for private landowners to advance sustainable land-use and include sustainable agriculture on working landscapes at the urban-rural interface.

Moderator: David Dowall, Professor of City & Regional Planning; Director, Institute of Urban and Regional Development, UC Berkeley

Randall Arendt, Planner, Author of Protecting Metro-Edge Farmland through Conservation Subdivision Design, Landscape Architect - Conservation Subdivision Design: One Tool for Farmland Preservation*

Al Medvitz, Rancher and UC Davis Public Policy Specialist - Multifunctionality of Farms as a Public Benefit*

Judy Corbett, Executive Director, Local Government Commission, Village Homes*

Steven Frisch, Vice President for Programs, Sierra Business Council

11:15am - 12:45pm Vitality of Rural Communities in Metropolitan-influenced Regions
An investigation of social issues at the urban edge.

Moderator: Sally Fairfax, Henry J. Vaux Distinguished Professor of Forest Policy, UC Berkeley

Bronwynne Wilton\textsuperscript{4}, Ph.D. Candidate, University of Guelph, School of Environmental Design and Rural Development - Local Food, Horses, and Lifestyle at the Metropolitan Edge in Southern Ontario, Canada*

\textsuperscript{3}Was unable to attend
\textsuperscript{4}Presented for Stuart Hilts, who was unable to attend
• **Constance Washburn**, Education Director, Marin Agricultural Land Trust
  - *Cooperative and Diverse Approaches to Preserving and Supporting Agriculture at the Urban Edge*

• **Rex Laird**, Director, Ventura County Farm Bureau

• **Martha Guzmán**, Legislative Advocate for the California Rural Legal Assistance Foundation - *Farm Labor Issues*

12:45pm - 1:30pm *Lunch*

1:45pm - 3:30pm *Emerging Urban-Rural Initiatives*
Presentation of social factors underlying local food and agriculture movements: access to fresh food, urban agriculture, and cultural traditions in food and farming.

Moderator: **Susan Roberts**, Director, Food & Society Policy Fellows Program, Thomas Jefferson Agricultural Institute

• **Richard Jackson**, Adjunct Professor, UC Berkeley School of Public Health, City & Regional Planning - *Public Health Impacts and Implications of Urban Edge Agriculture*

• **Gail Feenstra**, Food Systems Coordinator, UC Sustainable Agriculture Research and Education Program - *The Local Food Systems Movement*

• **Margaret Crawford**, Professor, Harvard University, Urban Planning and Design with Takako Tajima, landscape architect - *Capturing Suburban Land for Agriculture Through Social De-Commodification*

• **Nevin Cohen**, Visiting Assistant Professor, The New School, Eugene Lang College, Creating a More ‘Civic’ Civic Agriculture

3:30pm - 4:00pm *Wrap-up and Synthesis*

**Elizabeth Deakin.** Synthesis of ideas and directions for new and strengthened alliances; policies and strategies; entrepreneurial opportunities; and research and demonstration projects that can help bridge smart growth and sustainable agriculture at the metropolitan edge in California and elsewhere.

*PowerPoint presentation*
RECEPTION & PANEL DISCUSSION

A CELEBRATION OF SPRING BOUNTY ON BAY AREA FARMS
& YOLO COUNTY CASE STUDY--THE MAKING OF AN URBAN-RURAL PLACE

THURSDAY, APRIL 5, 2007 5:30 – 9:00 P.M. AT WURSTEL HALL, UC BERKELEY

SLOW AND LOCAL FOOD RECEIPTION: 5:30–7:00 p.m. $20 per person
Join us to enjoy spring harvests from local farms, sample Livermore Valley and Yolo County wines, and meet local farmers. Sustainable agriculture and local food organizations will offer information about their advocacy work and participation opportunities. Designers, planners, and researchers will present posters about creative and effective approaches to urban-rural interface issues.

YOLO COUNTY CASE STUDY DISCUSSION: 7:00–9:00 p.m. Free and open to the public
Extending from the Delta to the Vaca Mountains and encompassing over half a million acres of prime farmland as well as growing cities, Yolo County epitomizes the 'contested landscape'. The issue of balancing urban growth and farmland protection is of regional concern. Yolo is the top ranked direct marketing county in the country, with the metropolitan Bay Area its main market. In this panel, urban and rural leaders will discuss best practices and innovative strategies for bridging smart growth and sustainable agriculture in Yolo County and the region.

Moderator: Donny Lydon, UC Berkeley Architecture Professor, editor of PLACES magazine, and convenor of the annual Mayor’s Institute.
Speakers: Ann Evans, Consultant to the Yolo County Agricultural Commissioner; former Mayor City of Davis; Rich Honinga, Yolo County farmer, former Secretary, California Department of Food and Agriculture; former Under-Secretary, US Department of Agriculture; Mike McKeever, Executive Director, Sacramento Area Council of Governments (SACOG); Paul Muller, Co-Owner, Full Belly Farm, former President, Yolo Land Trust.

Information: For further information about the symposium and to buy a ticket for the reception, please visit our website: http://metrotalks.berkeley.edu/agmetroedge.

Symposium Sponsors: UC Berkeley Sponsors: Center for Global Metropolitan Studies (lead sponsor); Dean’s Office, College of Environmental Design; Frawn Fund; Landscape Architecture & Environmental Planning Department; Institute of Urban and Regional Development; Knight Program for Science and Environmental Journalism; Agriculture at the Metropolitan Edge Program. Co-sponsors include: American Farmland Trust; Local Government Commission, Reets of Change Fund; Supporters: EPA Region 9, BALLE.

Reception Sponsor: Ciff Bar

PRESENTED BY:
THE AG AT THE METRO EDGE SYMPOSIUM,
BAY AREA BUY FRESH BUY LOCAL, AND SLOW FOOD BERKELEY
Acknowledgements

Agriculture at the Metropolitan Edge:
New Ruralism and Other Urban–Rural Sustainability Strategies
Public Symposium, University of California, Berkeley
April 5–6, 2007

This event would not have been possible without generous support from the following organizations and individuals. To them we extend our deepest gratitude.

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UC Berkeley Sponsors: Dean’s Office, College of Environmental Design; Farrand Fund, Landscape Architecture & Environmental Planning Department; and Knight Program for Science and Environmental Journalism.

Co-sponsors: American Farmland Trust; Roots of Change Fund; Whole Foods Market, and WRT Design

Reception Sponsor: Clif Bar

Supporters: EPA Region 9, Local Government Commission,

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Ed Thompson, Lynn Huntsinger, Sally Fairfax

Sibella Kraus (conference producer)

For further information, please visit the website http://metrostudies.berkeley.edu/agmetroedge or contact the Institute of Urban and Regional Development at 510-642-4874.
“Conservation Subdivision Design: One Tool for Farmland Preservation
(See accompanying PowerPoint presentation)

In metro areas where Urban Growth Boundaries (UGBs) and the Transfer of Development rights (TDRs) are currently politically unattainable; where public funds to purchase development rights (PDRs) are very limited; and where land trusts have tapped out the potential for conservation easement donations, one zoning technique that holds great promise for farmland protection is “Conservation Subdivision Design”.

This approach to laying out subdivisions ensures that a significant percentage of buildable uplands are permanently protected to create interconnected networks of conservation lands. The percentage of protected land varies according to project density, rising from 20-25% at density levels of three or more dwellings/acre, to 75-80% at four or more acres/dwelling.

Conservation subdivisions are specifically designed around each site's most significant natural and cultural resources, with their open space networks being the first element to be "green-lined" in the design process. This open space includes all of the “Primary Conservation Areas” (inherently unbuildable wetlands, floodplains, and steep slopes), plus 20-80% of the remaining unconstrained land, depending upon zoning densities and infrastructure availability.

The site planning process begins with general mapping of the project site in its context of surrounding properties (up to 2000 feet away, typically mapped at 1” = 400 feet). On this Location Map (compiled from existing published data) are shown vegetative cover, topography, soils, and floodplains.

A more detailed, site-specific Existing Resources and Site Analysis Map is then created, identifying significant natural and cultural resources, such as productive cropland, wildlife habitat and travel corridors, and significant trees.
A four-step process follows, with Step One separating the site’s resources into two categories. The first, Primary Conservation Areas (PCAs), are limited to unbuildable wetlands, floodplains, and steep slopes (>25%). Secondary Conservation Areas are comprised of “the best of the rest”. Because the PCAs would be off-limits to development in conventional developments in any event, they are not counted toward the minimum required open space percentages.

Step Two consists of locating home sites in relation to the protected open space, to add livability, marketability, and value to the homes. Step Three is to “connect the dots” with streets and trails. Step Four consists simply of drawing in the lot lines. This process works best when guided by a landscape architect or physical planner, collaborating with a civil engineer.

The optimal design process begins with a site walk by the LA/planner and engineer, landowner, and developer, with the Existing Resources Site Analysis Map in hand, usually reproduced on an aerial photo at the working scale. The design is done in the field or immediately afterwards, on thin tracing paper so that the underlying resource information is visible to the designers, who typically work with pencil and eraser. The resulting Sketch Plan is then shown to local officials, some of whom may have been invited to join the designers on their initial site walk.

After completing the above procedures, the time is right to prepare the highly detailed, expensive, Preliminary and Final Plans.

The above paragraphs summarize the key points relating to necessary improvements to most local subdivision ordinances.

Zoning ordinances work best when density is established directly (such as by designating density as three units per acre in sewer areas, or two acres per dwelling in unsewered areas) instead of indirectly (such as through minimum lot sizes, e.g., 12,000 sq. ft and 88,000 sq. ft). As long as density is regulated indirectly through lot size, subdivisions will consist of nothing more than house lots (of that size) and streets, with no open space.

Conservation design can be blended with “traditional neighborhood design” (the “New Urbanism”) in areas with public water and sewerage.
Susan Clark
Director, Columbia Foundation; Founding Chair, Roots of Change Fund, San Francisco, CA

“The New Mainstream Food and Farming System: A Vivid Picture of California’s Food System in 2030”

Most big-city mayors do not yet see urban-edge open space as vital to the future food, fuel, and fiber supplies of their cities. Urban political leaders are not yet alarmed by the development of prime agricultural lands for the expansion of urban areas. Food system advocates need to harness the politics of big cities on these issues.

If the U.S. continues to off-shore the food system, it will be impossible to conserve agricultural lands on the urban edge and the “end of agriculture in California”, as a UC Davis researcher described it, may occur in our lifetime. The current food system is irrational and inefficient; trade is redundant and wasteful. For example California imports avocados from Mexico at the height of the California avocado season, and exports the same products. The global market system will not create a sustainable and just food system, nor preserve urban edge agriculture. The State of California may need to de-commodify food and get it out of the world trade regulations entirely – or develop a trade model wherein food is imported and exported to supplement rather than supplant local food production.

The scale of most solutions proposed is not up to the scale of the need and opportunity. Roots of Change (ROCfund.org), a foundation collaborative, envisions a transition to sustainable food and farming systems by the year 2030. The New Mainstream, a vision that is evolving with the participation of farm and food leaders throughout California, posits that all of California food and farming will transition to a gold standard of green production practices and a just and sustainable distribution system which improves the livelihood and health of farmers and farm workers, as well as
their communities. The creation of a new urban/rural social contract is a key component of the strategy for change. Cities in California will be fed by surrounding farmlands. While California will continue to be a food exporting economy, California farmers will feed Californians through the development of many local and regional food systems.

The University of California could be the intellectual engine and educational resource for California to become a leader in developing sustainable food and farming systems. There are some big things UC could do to move this agenda, including:

- Create the gold standard of green production practices for the entire state – including animal husbandry;
- Establish a brand and certification program for California Agriculture;
- Increase the budget and reach of UC Extension with the explicit mission to help all of California agriculture transition to sustainable practices by the year 2030;
- Increase the budget and reach of SAREP to work with UC Extension to achieve the mission of sustainable food and farming systems by the year 2030;
- Increase the budget for Agroecology at UC Santa Cruz and provide developmental support to the new Institute for Agriculture Sustainability at UC Davis;
- Identify the policy levers and financing needed for the state to make the transition to sustainable food and farming systems while honoring and preserving California’s pioneering organic industry;
- Establish educational programs on all campuses to prepare a new generation of the best and the brightest for careers in sustainable food and farming in the state;
- Make a map of all prime farmlands in the state and establish priorities for preserving farmlands and farming through positive agriculture easements; and
Engage the business schools to develop new distribution systems to serve decentralized and regionalized food systems in California; create models for a more rational and efficient food trade regime; and help create new business models for local ownership and control of regional food systems.

NEVIN COHEN, PH.D.
Visiting Assistant Professor, The New School, Eugene Lang College, New York City, NY

“Creating a More ‘Civic’ Agriculture” (See accompanying PowerPoint presentation by the same name)

Many assessments of shortened food supply chains, and forms of civic agriculture like farmers’ markets and CSAs, focus on the value of the face-to-face economic transactions facilitated by these alternative food systems. This presentation argues that a more civic agriculture depends on a strong sense of place, and a deep connection to it, fostered by collectively owned farmland that encourages shared responsibility for the foodshed among both consumers and producers.

The presentation describes case studies of innovative efforts to connect consumers to farming through the ownership of farmland: Angelic Organics, a CSA whose members own part of the farm; Westhaven Farm at EcoVillage Ithaca, a co-housing development that owns farmland and leases it to farmers who grow organic food for the residents and the local farmers market; and conservation subdivision developments, from Prairie Crossing to Pardon Hill, that integrate working farmland and homes. In each case, the farm co-owners are committed not only to ensuring the quality of the food produced, the conditions under which it is produced, and the well-being of the farmer and his/her family, but also to the farm property and policies that affect the viability of the farming operation.

The cases suggest that smaller-scale, intensively-farmed land owned by a combination of city residents, farmers, and suburbanites may create a constituency for farmland protection, local food production, and safer and more humane agricultural practices, and may be a replicable model
for expanding metropolitan edge agriculture. Angelic Organics shows that there is an interest on the part of individuals to make substantial capital investments in farmland to expand production and help the CSA remain profitable. EcoVillage Ithaca illustrates that intentional communities can be unique constituents for civic agriculture, supporting and nurturing the development of farmland that will feed their members and others in the community. Both Prairie Crossing and Pardon Hill suggest that residential development and farming can be combined successfully, offering residents the opportunity to interact with farmers as neighbors, maintain a close physical connection to farmland through trails through the farm, and forge a greater connection to farming.

MARGARET CRAWFORD,
Professor, Harvard University, Urban Planning and Design with Takako Tajima, MLA, Landscape Architect

“Capturing Suburban Land for Agriculture Through Social De-Commodification” (See accompanying PowerPoint presentation by the same name)

The anthropologist, Arjun Appadurai, argues that the process of commodification operates in two directions and that goods and services can become de-commodified, partially de-commodified, or their commodity value can be temporarily suspended. By applying this idea to land, we imagine a new model of land tenure that would allow for the appropriation of land through social action.

What is “weak” land tenure? “Weak” land tenure involves both process and perception. As a process it is an act of appropriation that allows low-income populations access to land’s use values without exchange values. As a perception, it is the status of land’s exchange value either diminished or suspended due to changes affected by time, circumstances, or through sheer social force (“weak” land tenure as verb). It is when use values become freely available to the public.

We tested these ideas in a strategy to reintroduce agriculture in northern Orange County. We catalogued 25 different “weak” land tenure situations in
this area (i.e., beach parking whose tenure “weakens” with changes in time of day and seasons, brown fields, concrete rivers, etc.) and charted when, where, and how much land would potentially be available for appropriation at any given time.

Next, we developed ten speculative design projects that capitalize on “weak” land tenure to demonstrate how food cultivation and distribution might be reintegrated into the daily lives of Orange County residents. These propose a range of possible types of new farms and new farmers’ markets inspired by existing organizations, individuals and projects devoted to urban agriculture and food provision and combine them with possible “weak” land tenure sites to suggest an almost infinite number of new agricultural possibilities that could, cumulatively, transform this area. They also demonstrate how such under used and often invisible sites can help address the problems that haunt urban areas, including environmental degradation, hunger, and unemployment.

**TIM DUANE**

Associate Professor of City & Regional Planning and Landscape Architecture & Environmental Planning, UC Berkeley

“Maximizing the Public Benefits of Agricultural Conservation Easements”
(See accompanying Power Point presentation)

Conservation easements have become a conservation tool of choice in many areas, and they have been applied extensively to “working landscapes,” such as agricultural and ranchlands, in order to continue to maintain agricultural and economic productivity while preventing urbanization and development. Agricultural Conservation Easements (ACEs) often involve the significant expenditure of public funds through both tax benefits and direct public expenditures for conservation easements. The selection of agricultural parcels for the expenditure of such public funds should, therefore, maximize public benefits, such as flood management, wildlife habitat, and urban growth management. Many programs select agricultural parcels for conservation easements based only on agricultural viability and/or land cost without explicit consideration of these or other public benefits associated with ACEs. This presentation explores the spatial implications of maximizing
the public benefits of agricultural conservation easements in the northern San Joaquin Valley of California. It also elaborates on the possibility of using public funds to acquire ACEs to reduce public liability for levee failures and associated flood damages.

GAIL FEENSTRA, ED.D., R.D.

Food Systems Coordinator, Community Food Systems/Nutrition Program, UC Davis Sustainable Agriculture Research and Education Program

“The Local Food Systems Movement” (See accompanying Power Point presentation by the same name)

Local/regional food systems are emerging across the country and have become effective strategies for forging linkages between urban and rural citizens. These regional food systems combine comprehensive, community-based economic, educational, and policy initiatives to create new marketing and planning tools. Although they look very different in various political and economic contexts, they have key factors in common that contribute to their success.

Researchers from different locales have worked together for more than a decade on a nationwide project: “Sustaining local food systems in a globalizing environment.” Lessons learned from three regional food systems initiatives show the extent to which they are nurturing an urban-rural compact: local agriculture marketing organizations and local food systems initiatives (LFI’s) in California, and place-based food systems initiatives in Missouri.

ANDY FISHER

Director, Community Food Security Coalition

“Community and Regional Food Policy Guide for the APA”

Traditionally planners have not focused on the food system – in part because it is not directly related to the built environment; and in part
because it doesn't deal with public goods (as currently perceived) or planning for services (as currently perceived). In recent years, there has been an increasing awareness of connections between urban planners and food system advocates. While this awareness is leading to more in-depth municipal food system planning, to date urban edge agriculture has been largely ignored.

However, due to current hot-button issues like the obesity epidemic, and for reasons that underlie the impact of planning on the food system, planners are increasingly focusing on this aspect of the food system. For example, urban sprawl affects farmland preservation and types of regional agriculture. In addition, access to healthy foods in many communities is directly linked to convenience of public transit.

In turn, the food system affects the interests of planners. Food system activities take up a significant amount of urban and regional land. At 1 billion acres nationally, agriculture is a dominant land use and one that represents $1 trillion to the national economy, or 13% of the GNP. Food system activities also account for 17% of national energy use, have impacts on water and air quality, and have a huge impact on the nature of communities and quality of life.

In 2007, the American Planning Association (APA) formally approved a landmark community and regional food planning policy guide. This document provides guidance to APA members on federal and state policy positions. It also includes goals and recommendations to inform and guide planners about analysis and actions that need to be considered in order to integrate the food systems planning component into their overall planning.

The first recommendation is that planners undertake a comprehensive municipal planning process. The APA has also undertaken related actions, including a food planning workshop track at the annual conference and dedicating an issue of its magazine to food systems planning. The net result has been to legitimize food systems as an important issue for planners and to engage an increasingly broad audience. The following examples demonstrate some of the ways that planners and food system advocates are building on their common interests.
In Chicago, a land use covenant that restricted grocery store competition was considerably weakened as a means to increase access to healthy foods.

Madison has a Comprehensive Plan that contains a variety of food system planning measures related to food retail, community gardening, farmers’ markets, small-scale farming, and food policy councils. The fact that these issues are addressed in a comprehensive and integrated fashion sets Madison apart from other American cities. For example, the Plan details its support for community gardens in a number of ways. The City will “protect existing community gardens in the City and establish additional areas for new community gardens.”

Madison planners also seek to improve the connections between the surrounding rural economy and urban food processors and consumers. The Plan states that the City will coordinate with Dane County “to educate farmers with operations in the City about incentive programs that will help them continue farming or to sell their land to farmers with interest in smaller-scale agricultural operations.” It also calls for the City of Madison to promote the sale of food grown in Dane County, and to support the County’s efforts to promote and develop direct marketing alternatives for agricultural products.

As a final example, the Community Food Security Coalition is part of a broad coalition that is supporting a package of policies (with a $100 million/year price tag) for the 2007 Farm Bill that will strengthen rural-urban connections in numerous ways. These include farm-to-school and urban agriculture programs; EBT (electronic benefits transfer) and FMNP (Farmers market Nutrition Program) programs that prioritize purchase of locally-grown food; infrastructure for regional food system development; and CSP (conservation security program).

**HOLLY A. KING**

Director of Agricultural Programs, Great Valley Center

“On The Ground in The Central Valley” (See accompanying Power Point presentation)
California’s Central Valley produces two-thirds of the state’s agricultural commodities and is the major supplier of fruits, nuts, and vegetables consumed in the U.S. But it is the “last frontier” in farmland, with many of the state’s agricultural areas being developed for non-farm use.

The Central Valley town of Delhi is a model of successful farmland protection: such a program depends on protecting a critical mass of contiguous farmland, generating opinion leaders from the farming community, and supporting agriculture service providers in the community. A statewide plan for agriculture similar to existing plans for water and transportation could bring benefits beyond food production, such as preservation of open space, groundwater recharge, and habitat protection.

Land use decisions that consider only development undervalue farmland, necessitating the use of protective instruments such as agricultural easements that protect farmland from development. Such easements are expensive and need large reservoirs of funding to be effective in protecting agricultural regions. CEQA is another potential tool for farmland protection but leadership and political will is needed to build advocacy for preserving agricultural land.

ANDREA MACKENZIE
General Manager, Sonoma County Agricultural Preservation and Open Space District

“Land Conservation and Defining the Urban Edge” (See accompanying Power Point presentation by the same name)

Public land conservation programs can play a critical role in preserving and maintaining urban edge lands in productive agriculture and in advancing sustainable agriculture and local food production. Since 1990, the Sonoma County Agricultural Preservation and Open Space District’s program has used the tools of the conservation easement and outright purchase to remove the threat of development and fragmentation from over 70,000 acres of land. The District’s conservation work is done not in isolation but in coordination with cities and counties and their adopted general plans. Sonoma County’s land acquisitions have translated public policy into on-the-
ground conservation successes, whether helping to support the agriculture and tourism industries; holding the line on urban expansion and encouraging city-centered growth; leasing back public greenbelt lands for small scale farmers to grow healthy food for farm stands, schools, and restaurants; or expanding public recreational opportunities in State and County Park Systems.

Sonoma County is a good case study for looking at urban edge land use policy and the interface with agricultural viability. Sonoma County is the sixteenth largest agricultural economy in the state and has been able to sustain agricultural diversity beyond its well-known vineyards to encompass dairies, livestock, vegetables, nuts, and orchards. The key threats to agricultural viability are rising land values, pricing of commodities, and pressure to sell for development.

Beginning in 1990, residents expressed their concern for the loss of agricultural land use by passing two landmark measures: one created the Agricultural Preservation and Open Space District; and the other funded its land conservation work with a 0.25 percent sales tax for 20 years. In November 2006, residents voted to reauthorize the sales tax until 2031.

The District has a very diverse mission that allows for adaptive conservation strategies. The District’s sales tax generates about $17 million annually for purchasing conservation easements and land to protect agriculture, greenbelts, natural resources, and recreation. Much of the District’s work focuses on the urban/rural interface, where it uses strategic conservation tools to reinforce the urban edge and to protect and maintain agricultural land use. The District’s program assists farmers and ranchers with staying in business and supports the niche agricultural markets of the North Coast. Several years ago the District began a program called the Small Farms Initiative, in which it leases its publicly protected greenbelt lands to local farming operations for production of fruits and vegetables for markets, schools, and restaurants.

In 2006, the District adopted a far-sighted new conservation plan called “Connecting Communities and the Land” that recognizes the “green infrastructure” benefits of land conservation: clean air and water, access to local healthy food, safe routes to schools and parks, and alternative transportation options. Increasingly, the public’s interaction with nature is
at the urban/rural edge through experiences with local agriculture, farm stands, and community gardens. Our conservation policies and efforts must increasingly reflect a “whole communities approach,” recognizing the inextricable link between agriculture and sustainable urban communities.

STEVE SHAFFER
Director, California Department of Food and Agriculture, Office of Agriculture and Environmental Policy

“Emerging Trend of Certification of Sustainable Practices; Multiple Environmental Services of Farmland”

Various definitions have been provided for what constitutes sustainable agriculture, ranging from the narrow focus on economics or production to the incorporation of culture and ecology. Wendell Berry has simply said, “A sustainable agriculture does not deplete soils or people.”

Over time, the International Alliance for Sustainable Agriculture and an increasing number of researchers, farmers, policy-makers and organizations worldwide have developed a definition that unifies many diverse elements into a widely adopted, comprehensive, working definition: a sustainable agriculture is ecologically sound, economically viable, socially just, and humane.

These four goals for sustainability can be applied to all aspects of any agricultural system, from production and marketing to processing and consumption. Rather than dictating what methods can and cannot be used, they establish basic standards by which widely divergent agricultural practices and conditions can be evaluated and modified, if necessary, to create sustainable systems. The result is an agriculture designed to last and be passed on to future generations.

Conceived in this sense, sustainable agriculture presents a positive response to the limits and problems of both traditional and modern agriculture. It is neither a return to the past nor an idolatry of the new. Rather, it seeks to combine the best of traditional wisdom with the latest scientific advances. This results in integrated, nature-based agro ecosystems designed
to be self-reliant, resource conserving and productive in both the short and long terms.

Aldo Leopold summed up the concept of ecological soundness quite simply, “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It’s wrong when it tends to be otherwise.” Derived from the Greek word for house, in current usage “eco” implies the wisdom and authority to manage in the best interests of the household. Species diversity is essential to achieve self-regulation and resultant stability. An ecologically sound agriculture also must be resource efficient in order to conserve precious resources, avoid systems toxicity and decrease input costs.

Essential to the notion of economic viability is the requirement that there be a positive net return, or at least a balance, in terms of resources expended and returned. Ignored in current accounting are numerous subsidies that make agriculture appear economically viable, and hidden costs such as loss of wildlife, and healthcare costs from chemical exposure.

In addition to short-term market factors relating to supply and demand, real viability requires an understanding of a number of other considerations, including relative risk and qualitative factors (security, beauty, satisfaction), which are often ignored in economists’ models because they are difficult to quantify. Aldo Leopold wondered, “Do economists know about lupines?”

The sustainable system must assure that resources and power are distributed equitably so that the basic needs of all are met and their rights are assured. This requires equitable control of resources and full participation. Whether in the field, market or voting both, all people must be able to participate in the vital decisions that govern their lives.

Access to land is necessary in order for a majority of the world’s population to escape poverty and grow the food it requires. As important as equitable land tenure is the availability of adequate resources to succeed in this effort, including capital, technical assistance and market opportunities. At the same time, the rights of landless farm workers and the urban poor must be recognized. This requires fair wages, a safe work environment, proper living conditions and the right to nutritious, healthy food.
Finally, agriculture must embody our highest values (kindness, mercy, sympathy) in all aspects - from respect for life to the protection of diverse cultures. Humans clearly have an interdependent relationship with animals - from their physical labor and companionship to their invaluable recycling of organic matter and provision of food - but too often animals are seen only as objects to be exploited. Humane agriculture must be based on a fundamental respect for animals and recognition of their rights.

It is equally important that the highest values apply to human interactions. Cultural roots are as important to agriculture as plant roots. Without strong communities and vibrant cultures, agriculture will not flourish. The increasing substitution of the term “agribusiness” for “agriculture” reflects a fundamental shift to a monetized economy in which everything, including human beings, is assigned a certain value. Such a system leads to an increased sense of competition, isolation and alienation. As rural societies break down, their values are lost as the backbone of the larger society. Without such a backbone, agriculture is neither humane nor sustainable.

ED THOMPSON

California State Director & Senior Associate, American Farmland Trust, Davis, CA

“U.S. Agricultural Policy: Challenges and Opportunities for Preserving Urban Edge Agriculture”

The federal government has been involved with agriculture since Abraham Lincoln established the Department of Agriculture. While agriculture is often perceived as an independent enterprise, in fact many farmers have a silent partner – Uncle Sam – who contributes about $20 billion a year in commodity subsidies, conservation payments, and other agricultural programs. Every five years or so, Congress writes a Farm Bill to distribute this largesse. We need a broader framework that includes all agriculture influenced by urban land uses and economics so that Farm Bill money is better distributed to benefit agriculture at the metropolitan edge, which is extensive and important.
Farms located in metropolitan statistical area counties account for one-third of total U.S. agricultural production. If we include adjacent counties that have some urban influence, it climbs to 56 percent; in California the urban edge share is about 70 percent. Eighty-six percent of U.S. fruit and vegetable production comes from metropolitan counties. Two-thirds of dairy products, 40 percent of meat & poultry and a third of staple grains are produced near cities.

Metro edge agriculture is also distinguished by the exceptional productivity of the land. Our agrarian ancestors settled the most fertile ground and their farm market towns have grown into metropolises. All over the U.S., cities are surrounded by the best farmland. In many Central Valley counties, high quality farmland comprises 70 percent of the land within city spheres of influence. This is the land we can least afford to lose, yet it is the most vulnerable.

The most distinguishing characteristic of metropolitan edge agriculture is its impermanence. Cities continue to spread, consuming a million additional acres a year – 50,000 acres in California alone. In California’s Central Valley – the nation’s, and possibly the world’s, single greatest food producing resource – development each year paves over an acre of irreplaceable farmland for every 8 people. Resulting land use conflicts and increasing calls for regulation by neighbors increase the risks and cost of farming. Land speculation drives the price of farmland above what commercial agriculture can afford. Disinvestments in agriculture compel landowners to produce the land’s last crop: houses and shopping malls.

On the bright side, larger cities mean more hungry mouths to feed. Metropolitan edge agriculture has the advantage of proximity to urban consumers who are growing more sophisticated about fresh food, healthy diets, and the effect of a global food system on energy demands and climate change. As the real costs of food production and transportation become manifest, local food can only grow in importance. The competitive advantage of metro edge agriculture will also grow, so long as we can prevent urban sprawl from over-running it.

Federal agricultural policy could help in three important ways. First, it could help establish a real urban edge – a definitive line of demarcation between where we build and where we farm – that provides certainty to
both developers and farmers. While land use decisions are made locally, Washington can play a key role by funding farmland protection programs that make effective regulation more palatable and fair to farmers.

The second way federal farm policy could help metro edge agriculture is by financing better environmental stewardship by farmers and ranchers. California producers face the strictest air and water pollution laws in the country, and must also deal with water and habitat issues. The cost of environmental compliance goes right to the bottom line, since farmers cannot pass it along to consumers in higher food prices. Resistance to environmental regulation by farmers is not due to antipathy toward the environment, but to economics: most producers want to do the right thing, but simply lack the means. There are many environmental conservation programs in the farm bill that can help: environmental quality incentives, conservation reserve, wetlands reserve, grasslands reserve, and wildlife habitat improvement among them. In recent years, they have collectively accounted for only 10 to 15 percent of total federal farm spending. Most of the money has gone to producers in the Great Plains, remote from any urban area.

A third way federal farm policy could help metro edge agriculture is to better enable it to take advantage of the proximity of the urban market. While agriculture should not abandon overseas markets or free trade agreements, a parallel strategy of maximizing the potential of local markets should be pursued. American Farmland Trust’s 2007 farm bill agenda calls for a $1 billion annual fund to be distributed to states for the purpose of promoting a wide range of new production and marketing opportunities, including those that would benefit metro edge farmers large and small. The states would decide what their priorities are and this would give metro edge agriculture in California a distinct advantage.

Finally, the only affordable way to satisfy the unmet needs of metropolitan edge agriculture is to reform the federal farm subsidy system that now costs taxpayers $20 billion a year. Eighty percent of that money goes to just 15 percent of the farmers who grow only 5 crops. Though California produces 12 percent of the nation’s total farm output – much of it from the metro edge – it receives only 3 percent of federal farm spending. This system not only rewards those who are the least market-oriented and produce commodities that are at the bottom of the nutrition pyramid; it also distorts international
trade, making agriculture vulnerable to litigation and the U.S. subject to retaliatory WTO sanctions.

AFT has proposed that the current subsidy system be replaced by a safety net based on farm revenue insurance. In order for federal farm policy to better serve metropolitan edge agriculture, there needs to be overall federal farm policy reform to free up the resources to make it happen. Federal assistance alone will not be the salvation of metro edge agriculture. But continued federal neglect of this vital segment of our food production system will almost surely have consequences that extend beyond what we eat to the livability of our urban communities and the quality of life for the majority of Americans.

**CONSTANCE WASHBURN**

Education Director, Marin Agricultural Land Trust, TOWN, CA

“Cooperative and Diverse Approaches to Preserving and Supporting Agriculture at the Urban Edge” (See accompanying PowerPoint presentation, “Marin County; Using a Cooperative...”)

Located in the urban San Francisco Bay Area, Marin County has a flourishing and viable agricultural economy, proving that planning efforts and community involvement in support of farming can be successful. Over half the county is privately owned agricultural land with an annual value of $54 million. In West Marin, the agricultural landscape provides a broad range of values and benefits to residents and visitors alike. Marin leaders recognize that farmland provides open space, scenic vistas, watershed protection, and wildlife habitat.

The importance of agriculture is underscored in county-wide planning, housing, and transportation goals. The Marin community has worked together using a multi-pronged approach involving public and private agencies, community groups and individuals. The Marin Agricultural Land Trust has permanently protected 38,000 acres, one-third of the farmland in the county, with agricultural easements.
Still, agriculture in Marin County faces major challenges:

- potential loss of a critical mass of farmland through conversion to non-farm uses
- loss of generational continuation due to tax burdens and multiple ownership of farmland
- intensifying regulatory environment
- limited supplies of water
- increased competition from regional agricultural producers
- high land values based on development value; and
- the global open market for agricultural producers

Niche markets and proximity to metropolitan markets, and informed consumers who demand locally produced and organic products are opportunities for Marin farmers.

**BRONWYNNE WILTON**

**Doctoral Student, Rural Studies, University of Guelph**

“Local Food, Horses, and Lifestyle at the Metropolitan Edge in Southern Ontario, Canada” (See accompanying Power Point presentation”)

This presentation highlights the issues related to three sectors of land ownership in the highly contested urban-rural fringe of the Greater Golden Horseshoe Area. Research results from the Farmland Preservation Research Project at the University of Guelph, as well as the development of the Ontario Farmland Trust, are also presented.

The Greater Golden Horseshoe Area is one of the fastest growing regions in Canada and is expected to increase from 7.4 million people to 10.5 million people over the next 25 years. The province of Ontario has recently initiated a series of land use planning policies aimed at curbing urban sprawl in this region.
While this region boasts some of the highest quality agricultural land in Canada, the impact of urbanization combined with the trend towards larger, intensified farms has made it increasingly difficult to maintain conventional agriculture in this region. Due to the recent provincial policy initiatives, in particular the Greenbelt Act, urban development of prime agricultural land within the Greenbelt is now restricted regardless of property ownership.

At the same time, there has also been an expanding interest in the “local food” movement, driven primarily by consumer demand from the urban population of Toronto. While the local food movement is changing the nature of agriculture within the Greenbelt, farms are also being purchased by both non-farm rural landowners seeking ‘lifestyle’ properties and by people in the rapidly growing equine industry in Ontario. For example, there was a 19% increase in adult horse owners in Ontario in the period between 1998 and 2003.

In response to the growing pressure on farmland in the region, a new organization called the Ontario Farmland Trust was formed to provide an alternative method of protecting farmland in perpetuity.
Carl Anthony
Randall Arendt
Jo Ann Baumgartner
Christopher Cabaldon
Susan R. Clark
Nevin Cohen
Judy Corbett
Margaret Crawford
Elizabeth Deakin
Michael Dimock
David E. Dowall
Timothy P. Duane
Sally Fairfax
Gail Feenstra
Andy Fisher
Harrison S. Fraker
Steven Frisch
Martha Guzmán
Glenda Humiston
Lynn Huntsinger
Richard Jackson
A.G. Kawamura
Holly A. King
Sibella Kraus
Claire Kremen
Rex Laird
John Landis
Rick Landon
Donlyn Lyndon
Andrea MacKenzie
Mike McKeever
Albert G. (Al) Medvitz
Paul Muller
Gary Patton
Susan Roberts
Richard Rominger
Steve Shaffer
Edward Thompson
Tom Tomich
Dick Walker
Constance Washburn
Carol Whiteside
Bronwynne Wilton
David Zilberman

CARL ANTHONY

Ford Foundation Senior Fellow

Carl Anthony is a Ford Foundation Senior Fellow and Visiting Scholar at the Department of Geography at the University of California at Berkeley. Prior to his current position he was Acting Director of the Community and Resource Development Unit at the Ford Foundation, where he directed the Foundation’s Sustainable Metropolitan Communities Initiative and the Regional Equity Demonstration. Carl funded the national Conversation on Regional Equity (CORE), a dialogue of national policy analysts and advocates for new metropolitan racial justice strategies. Prior to joining the Foundation he was Co-Chair of the Bay Area Alliance for Sustainable Development (BAASD) and founding Executive Director of the Urban Habitat Program. With a colleague, Luke Cole at the California Rural Legal Assistance Foundation, he founded and published the Race, Poverty and the Environment Journal, the only environmental justice periodical in the United States.
RANDALL ARENDT, FRTP, ASLA

Planner, Landscape Architect, Author

Randall Arendt is a landscape planner, site designer, author, lecturer, and an advocate of “conservation planning”. He is also Senior Conservation Advisor for the Natural Lands Trust in Media, PA; Founder and President of Greener Prospects, Narragansett Pier, RI. In 2003 he was elected a Fellow of the Royal Town Planning Institute in London. In 2004 he was named an Honorary Member of the ASLA, and in 2005 he received the AIA's Award for Collaborative Achievement. Arendt has many books to his credit, including the award-winning *Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development*, which he coauthored; and its sequel entitled *Rural by Design: Maintaining Small Town*, which is among 39 volumes recommended by the APA for “the essential planning library”.

JO ANN BAUMGARTNER

Executive Director, Wild Farm Alliance

Jo Ann Baumgartner is director of the Wild Farm Alliance (WFA), whose mission is to promote a healthy, viable agriculture that protects and restores wild Nature. WFA envisions ecologically managed farms and ranches that gracefully meld into landscapes supporting, if possible, the full range of native species and ecosystem services. Jo Ann is coeditor of the recently published book *Farming and the Fate of Wild Nature: Essays in Conservation-Based Agriculture* and the author of many WFA Briefing Papers. Before joining WFA in 2001, Jo Ann worked on dairy, fruit and vegetable issues with the Ecological Farming Association and on fiber production with the Sustainable Cotton Project.
CHRISTOPHER CABALDON

Mayor, City of West Sacramento

Christopher L. Cabaldon was first elected Mayor of West Sacramento in 1998, becoming the youngest mayor in the city’s history. He is now serving his fifth term as mayor. Cabaldon is also President/CEO of EdVoice, a statewide nonprofit network of citizens and education philanthropists fighting for public schools. He served for five years as Vice Chancellor of the California Community Colleges, the largest system of higher education in the United States, and is an adjunct faculty member in public policy and administration at CSU Sacramento. Cabaldon was a top policy expert with the State Legislature for nearly a decade, serving as the staff director of the Assembly Higher Education Committee and chief of staff to the chair of the Assembly finance committee. Cabaldon serves on the advisory boards for the UC Davis School of Education and for New Schools, Better Neighborhoods, a nonprofit organization implementing a new vision for building schools as centers of community.

SUSAN R. CLARK

Executive Director, Columbia Foundation

Susan Clark has been the executive director of the Columbia Foundation since 1979 and previously served as the executive director of the Mortimer Fleishhacker Foundation. Columbia Foundation’s programs include major initiatives in sustainable food and farming; human rights including freedom-to-marry campaigns and promotion of full public financing of political campaigns; and support for the arts in San Francisco and London, including founding grants for the Creative Work Fund, a funding collaborative in San Francisco for the support of individual artists in collaboration with communities. Clark is also a cofounder and member of the steering committee of the Roots of Change Fund, a foundation collaborative that works to promote the transition to sustainable food and farming systems in California.
NEVIN COHEN
Visiting Assistant Professor, Eugene Lang College, The New School, New York City

Nevin Cohen is an assistant professor of urban environmental studies at The New School, in New York City. He is a scholar and planning practitioner who specializes in sustainable development planning and policy, corporate environmental policy making, strategies to enhance citizen participation in environmental decision-making, and the application of information technology to environmental problems. Dr. Cohen's current research focuses on three dimensions of sustainable urban food systems: strategies to foster civic agriculture in the metropolitan region; the community impacts of school lunch innovations; and methods to integrate food systems into urban planning practice.

JUDY CORBETT
Executive Director, Local Government Commission

Judith A. Corbett is the founder of and, since 1982, has served as Executive Director of the Local Government Commission. She holds an M.S. in Ecology from the University of California, Davis and was codeveloper of the highly acclaimed Village Homes development in Davis, California. Village Homes continues to attract international attention as a ground-breaking model for sustainable development. Corbett has coauthored three books on resource-efficient land use and building design, and published over 50 policy guidebooks for local government officials on topics ranging from hazardous waste reduction, recycling, energy conservation and resource-efficient land use patterns and is the recipient of the APA's 2005 Distinguished Leadership Award for a Citizen Planner.
MARGARET CRAWFORD
Professor of Urban Design and Planning Theory at the Harvard Graduate School of Design

Margaret Crawford is Professor of Urban Design and Planning Theory at the Harvard Graduate School of Design. She teaches courses in the history and theory of urban development, planning, and design. Her research focuses on the evolution, uses and meanings of urban space. Her book, *Building the Workingman’s Paradise: The Design of American Company Towns*, examines the rise and fall of professionally designed industrial environments. Her recent book *Nansha Coastal City: Landscape and Urbanism in the Pearl River Delta* was published in early 2006 and coedited by Alan Berger. Before coming to the GSD, Crawford was the Chair of the History, Theory and Humanities program at the Southern California Institute for Architecture.

ELIZABETH DEAKIN
Professor of City & Regional Planning and Urban Design, UC Berkeley

Elizabeth Deakin is Director of the University of California Transportation Research Center and Professor of City and Regional Planning at UC Berkeley, where she also is an affiliated faculty member of the Energy and Resources Group and the Master of Urban Design group. She is codirector of the UC Berkeley Global Metropolitan Studies Initiative, which involves nearly 100 faculty members from 12 departments. Deakin’s research focuses on transportation and land use policy and the environmental impacts of transportation. She has published over 100 articles, book chapters, and reports on topics ranging from environmental justice to transportation pricing to development exactions and impact fees. She currently is conducting a study benchmarking transit-oriented development and developing TOD guidelines for the Federal Transit Administration.
MICHAEL DIMOCK

Executive Director, Roots of Change

In July of 2006, Michael Dimock accepted a position as Executive Director of the Roots of Change fund. He has focused on agriculture and the food system since 1989. Since the early 1990s, he has been helping communities, NGOs, and businesses to build consensus and implement plans related to agricultural policy and marketing, resource stewardship, and sustainability. Dimock founded the Ag Innovations Network and is the former Chairman of Slow Food USA, a nonprofit organization dedicated to creating a good, clean, and just food system, with particular emphasis on food biodiversity, creating meaningful links between producers and consumers, and the pleasures of the table.

DAVID E. DOWALL

Professor of City & Regional Planning; Director, Institute of Urban & Regional Development

City planning professor David Dowall assumed leadership of the Institute of Urban and Regional Development (IURD) in 2004. He has worked with IURD since joining the Berkeley faculty in 1976. Over the years, his research has focused on both domestic and international land management, housing policy, economic development strategy and infrastructure planning and finance. Internationally, Dowall has carried out policy research and designed technical and financial assistance strategies for cities and regions in over 40 countries. Although he is known for his empirical and analytical work on urban land economics and infrastructure finance, he has spent over 20 years working with governments and nongovernmental organizations on neighborhood and urban development projects.
TIMOTHY P. DUANE

Associate Professor, City & Regional Planning and Landscape Architecture & Environmental Planning (Environmental Planning and Policy), UC Berkeley

Timothy P. Duane is one of the world’s leading experts on land use and ecosystem management in the west. His publications include *Shaping the Sierra: Nature, Culture, and Conflict in the Changing West*, “Community Participation in Ecosystem Management” in *Ecology Law Quarterly* and “Regulation’s Rationale: Learning from the California Energy Crisis” in the *Yale Journal on Regulation*. Professor Duane served as a special consultant to the Sierra Nevada Ecosystem Project in 1993-1996, was appointed by the U.S. Secretary of Agriculture to the California Spotted Owl Federal Advisory Committee in 1997, and is now working on a new book tentatively titled *Wolves, Water, and Wilderness: Ecosystem Management in the Changing West*. His other recent projects include an external evaluation of the Packard Foundation’s $291-million Conserving California Landscapes Initiative and a project to maximize the public benefits of agricultural conservation easements.

SALLY FAIRFAX

Henry J. Vaux Distinguished Professor of Forest Policy, UC Berkeley

Sally Fairfax’s research has always focused on public resources, principally those managed by the United States Forest Service and the Bureau of Land Management. Within that broad topic, her interests include legal aspects of resource administration, agency history and culture as it affects management decisions, and the relationship between federal and state governments. Over the years she has worked with diverse students and colleagues on water law and management, especially federal reserved water rights and ground water, minerals leasing, and public lands policy and history. Sally is currently focused on changing institutions of resource management, on the mixture of public and private ownership, institutions, and priorities that is emerging to achieve public goals in land management and conservation.
GAIL FEENSTRA

Food Systems Coordinator, UC Sustainable Agriculture Research and Education Program

Gail Feenstra is the food systems coordinator at the UC Sustainable Agriculture Research and Education Program. She coordinates SAREP’s Community Development and Public Policy Program which includes managing SAREP’s community development and public policy grants, conducting applied and evaluative research that strengthens community development efforts and coordinating education and outreach to community-based groups to build their capacity and leadership skills. Gail is also a nutritionist with a background in nutrition education. She is always looking for creative ways to strengthen the connections between producers and consumers, and between urban and rural communities through participation in sustainable, community food systems.

ANDY FISHER

Executive Director, Community Food Security Coalition

Andy Fisher has been the Executive Director for the Community Food Security Coalition for 10 years and is the author of numerous reports on food security related topics and an expert on other food system related topics including farmers markets, farm to school, urban agriculture, food policy councils, access to supermarkets in low-income communities, and food banking. His efforts have led to a new food and agriculture movement around food security and new federal programs that grant millions of dollars to community based groups for nutrition and food-related projects. His current projects include the development of a booklet on food security projects undertaken by food banks, starting regional organizing programs across the country, and federal farm to school legislation.
HARRISON S. FRAKER

Dean, College of Environmental Design; William W. Wurster Professor of Architecture and Urban Design

Harrison Fraker was educated as an architect and urban designer at Princeton and Cambridge Universities and is recognized as a pioneer in passive solar, daylighting and sustainable design research and teaching. He has pursued a career bridging innovative architecture and urban design education with an award-winning practice. He was awarded the Distinguished Service Medal for creating a new College of Architecture and Landscape Architecture at the University of Minnesota and was appointed the founding Dean. He was granted Fellowship in the AIA College of Fellows for his distinguished career of bridging education and practice. Fraker has published seminal articles on the design potential of sustainable systems and urban design principles for transit oriented neighborhoods.

STEVEN FRISCH

Vice President for Programs, Sierra Business Council

Steve is a dedicated project manager with over 20 years experience managing people in a highly competitive environment. He is a founding member of the Sierra Business Council and graduate of the Sierra Leadership Seminar. He manages SBC’s program staff and programmatic development including a variety of programs such as Placer Legacy, the Sierra Nevada Conservancy effort, and the Working Landscapes Initiative – a program that has protected 30,000 acres of working farms and ranches that are essential to our region’s economy, wildlife and cultural legacy. Since joining SBC, Steve has managed public outreach and served as project director of the Placer Legacy Program, a public/private partnership with Placer County California, and winner of the 2002 Governor’s Economic and Environmental Leadership Award. He has also coauthored the Sierra Nevada Resource Investment Needs Assessment, and fostered the creation of two landscape-level conservation programs that link conservation with local economic development.
**MARTHA GUZMÁN**

Legislative Advocate for the California Rural Legal Assistance Foundation

Martha Guzmán is a Legislative Advocate for the California Rural Legal Assistance Foundation advocating on Farm Worker Health and Safety issues, Environmental Justice and Education Justice. Her current advocacy work has concentrated on occupational and environmental hazards like heat illness and pesticide exposure. In 2003, she served as the Legislative Coordinator for the United Farm Workers, AFL-CIO, covering a range of labor and environmental issues. She is currently an active member of the Environmental Justice Coalition for Water and a council member of the Roots of Change Fund. Guzmán is a board member of the Ag Innovations Network and a board member of Community to Community Development.

**GLENDA HUMISTON**

PhD Candidate, UC Berkeley, Environmental Science, Policy & Management

Glenda Humiston has spent over twenty years working on public policy development and program implementation that supports sustainability. Toward that goal, Humiston has served as a Peace Corps volunteer in Tunisia, as Executive Director of a nonprofit advocating farmland preservation, and taken on many difficult challenges throughout the western states as a consultant on environmental and agricultural issues. In that capacity she developed a Rangeland Water Quality Management plan for the state of California that has become a model in many western states and received widespread support. She served from 1998 – 2001 as Deputy Under Secretary for Natural Resources and the Environment at the U.S. Department of Agriculture. While there, she received national honor awards from both USDA and EPA as well as two “Hammer” Awards from Vice President Gore for outstanding government programs.
LYNN HUNTSINGER
Professor, Environmental Science, Policy & Management, UC Berkeley

Lynn Huntsinger’s research addresses resource management as a shaper of landscapes, with consequences for ecosystems and people. Ranching as a form of resource management has a part in landscape and natural resource conservation. Creating a “sustainable” landscape implies application of many of the same principles as those used in planning for wildlife reserves, but some of the ideas of conservation biology need to be thought about in terms of conserving social as well as ecological elements and processes. Huntsinger is examining the developing role of ranching in land conservation in California. There is a growing and not uncontroversial movement using creative forms of title to conserve ranch lands for habitat conservation, open space, and cultural values.

RICHARD JACKSON, MD, MPH
Adjunct Professor, School of Public Health, UC Berkeley

Richard Joseph Jackson has served in many leadership positions with the California Health Department, including the highest: the State Health Officer. For nine years he was Director of the Centers for Disease Control and Prevention’s (CDC’s) National Center for Environmental Health in Atlanta. In 2005 he was recognized with the highest civilian award for US Government service, the Presidential Distinguished Executive Award. While in California his work led to the establishment of the California Birth Defects Monitoring Program and state and national laws that eliminated a series of dangerous pesticides. He was the US lead under several US government efforts around health and environment in Russia, including radiation threats. Jackson has coauthored *Urban Sprawl and Public Health* and served on many medical and health boards. In September 2005 Jackson was selected to serve on the Board of Directors of the American Institute of Architects.
A.G. KAWAMURA
Secretary, California Department of Food and Agriculture

A.G. Kawamura was appointed Secretary of the California Department of Food and Agriculture in November 2003 and is a produce grower and shipper from Orange County, where his family grows strawberries, green beans and other specialty crops. Secretary Kawamura has a long history of public service to his community and to agriculture, and is widely known for his passion for education and commitment to the issues of hunger and nutrition. At the time of his appointment, he was a member of the California State Board of Food and Agriculture, where he had served since 1998. Kawamura is the immediate past chairman of the Agricultural Technical Advisory Committee, and former president of Orange County Harvest, where he arranged for thousands of volunteers to harvest and glean over a million pounds of produce for area food banks. His nationally recognized urban projects, such as the 7-acre Common Ground project in San Juan Capistrano and 4-acre Incredible Edible Park in Irvine, are agricultural paradigms linking nutritional education and interaction with local schools and food banks.

HOLLY A. KING
Director of Agricultural Programs, Great Valley Center

Holly A. King is the Director of Agricultural Programs at the Great Valley Center, overseeing the Agricultural Transactions (ATP) and Sustainable Agriculture Programs. ATP is designed to create successful and strategic ag land conservation models and increase land conservation organization capacity through the provision of resources, support and assistance. Within the Sustainable Agriculture Programs, King develops links between the various issues faced by, and parties involved in, California Agriculture, creating educational venues throughout the Central Valley and developing projects related to sustainable agricultural practices. She is a member of the California Roundtable of Agriculture and the Environment; the California Council of Land Trust’s Agricultural Working Group; a graduate of the California Ag Leadership Program; a retired member of their Board of Directors; is a University of Nevada, Reno graduate with a degree in Agricultural Business and holds an MBA from UCLA.
**SIBELLA KRAUS**

*Director, Agriculture at the Metropolitan Edge Program, UC Berkeley*

Sibella Kraus has developed innovative and successful sustainable agriculture enterprise, research, and education projects in the Bay Area region for over 25 years. In the fall of 2006, she became the founding director of the Agriculture at the Metropolitan Edge program under the auspices of the UC Berkeley Center for Global Metropolitan Studies. Sibella also directs Sustainable Agriculture Education (SAGE), a nonprofit organization whose primary focus is the preservation and viability of urban edge agriculture. Prior to forming SAGE, Sibella founded, and directed from 1993-2000, the Center for Urban Education about Sustainable Agriculture (CUESA) and was responsible for the development of the nationally acclaimed Ferry Plaza Farmers’ Market and the market’s renowned education programs. Sibella began her career as a cook at Chez Panisse Restaurant. She also worked for a decade for the San Francisco Chronicle as a staff writer with a focus on regional agriculture.

**CLAIRE KREMEN**

*Assistant Professor, Environmental Science, Policy & Management, UC Berkeley*

As a conservation biologist, Claire Kremen seeks mechanisms for slowing or preventing the loss of biodiversity, one of the greatest environmental challenges facing humanity in the 21st century. Estimates of the magnitude of species extinction vary greatly, but one thing is clear – current rates of extinction far exceed those of past major extinction spasms. In her research, she works with two strategies, a “protected area” strategy and an “ecosystem service” strategy, finding they work in a complementary fashion (often in different parts of the landscape), to reconcile human resource use with biodiversity conservation. A central goal in her approach is to provide information, techniques or tools of use to real-world situations.
REX LAIRD
Director, Ventura County Farm Bureau

Rex Laird is CEO of the Ventura County Farm Bureau and has served on numerous committees and commissions concerning such issues as water, land use, air quality, and agricultural chemicals. He is participating in the Ag Futures Alliance Committee, a diverse group formed to promote better understanding and dialog on agricultural issues and is active in the Ventura Chamber of Commerce and also serves on the Ventura County Sheriff’s Mounted Posse. He is a team member on the Roots of Change sponsored Building Momentum for Change Leadership Network project. This project is building a California county leadership network and strengthening the collaboration among leaders working on county-level food systems issues.

JOHN LANDIS
Professor of City & Regional Planning, UC Berkeley

John D. Landis has been a DCRP faculty member since 1987. He served as DCRP chair from 2002 through 2005. His current research focuses on modeling and simulating urban growth at the local, metropolitan, regional, and national levels; on the impacts of urban development on the natural environment; on the potential for expanding infill housing construction; and on affordable housing policy and development in the U.S. and abroad. Past work has focused on land use regulation and housing costs, and on the effects of transportation improvements on land use patterns and property values. Professor Landis is a member of the American Planning Association and the Urban Land Institute, and was a ULI Fellow from 1992 through 2000. He is a member of the Governing Board of the Association of Collegiate Schools of Planning (ACSP) and the editorial review board of the Journal of the American Planning Association.
RICK LANDON
Agricultural Commissioner, Yolo County

Rick Landon graduated from UCLA with B.A. in Zoology and a Secondary Teaching Credential. He began his career as Agricultural Biologist in Santa Barbara County where he served for 7 years. He later became the owner/operator of a Wholesale Nursery in San Luis Obispo County for 6 years where he served as Deputy Agricultural Commissioner for 11 years. After leaving the Central Coast, he was the Assistant Agricultural Commissioner in Sutter County for 3 years and then became the Agricultural Commissioner in Yolo County where he has been for 6 years. Rick has been married for 35 years with three children and three grandchildren.

DONLYN LYNDON
Eva Li Professor Emeritus of Architecture and Urban Design, UC Berkeley; Editor, Places Journal

Professor Lyndon’s work as an architect, author and educator concerned with the design of places has been widely recognized. He is the Editor of PLACES, a journal of environmental design, author of The Sea Ranch (with Jim Alinder) and The City Observed: Boston, and coauthor of Chambers for a Memory Palace and The Place of Houses. He serves on many boards, including the Boards of the International Laboratory of Architecture and Urban Design, in Italy; and of the Charles Moore Center for the Study of Place in Austin TX. Lyndon’s architectural and urban design practice has included a continuing series of works at the Sea Ranch CA, where, with MLTW, he was one of the designers of Condominium One, (1965) which subsequently received the distinguished 25 year Award from the American Institute of Architects (AIA). Lyndon’s work has received numerous design awards and he is frequently asked to serve on architectural competition juries. His work as an educator was honored in 1997 with the AIA-ACSA’s Topaz Award, the highest award in architectural education.
ANDREA MACKENZIE
General Manager, Sonoma County Agricultural Preservation and Open Space District

In September 2000, Andrea Mackenzie was appointed by the Sonoma County Board of Supervisors as General Manager of the Sonoma County Agricultural Preservation and Open Space District. Mackenzie has worked for the District since 1996 and was the Senior Planner/Project Manager for the District’s Acquisition Plan 2000. She brings a passion for land preservation and a strong professional interest in addressing regional conservation issues at the urban/rural edge. MacKenzie has a Bachelors Degree in Environmental Studies from the University of California at Santa Barbara and a Masters Degree in Urban Planning and Natural Resources from the University of California at Los Angeles.

MIKE MCKEEVER
Executive Director, Sacramento Area Council of Governments (SACOG)

Mike McKeever, AICP, was appointed Executive Director of the Sacramento Area Council of Governments Board of Directors on December 17, 2004. Previously, McKeever was project manager of the Blueprint Project at SACOG. Over his 20-year career specializing in the field of planning, he has owned and managed two private businesses that specialized in working with local governments on innovative multi-jurisdictional projects and has been instrumental in developing cutting-edge planning techniques to integrate land use and transportation planning. McKeever has authored several manuals and guidebooks on various aspects of local government collaboration, and teaches “Stretching Community Dollars” seminars throughout California for the City, County, Schools Partnership, to help these units of government find creative ways to work together.
ALBERT G. (AL) MEDVITZ
Rancher, UC Davis Public Policy Specialist

Albert G. (Al) Medvitz is currently a rancher in Rio Vista California and a visiting scholar in the Department of Animal Science at the University of California at Davis. With his wife, Jeannie McCormack, he raises market lambs, alfalfa, and dry land small grains on 3,700 acres on the banks of the Sacramento River in Solano County. Medvitz writes on agricultural change in California, and on science and culture; he has taught at the University of California at Davis and California State University Hayward on matters of agriculture and the environment, international agriculture, community development, and the management of animal enterprises. Medvitz is active in the American Association for the Advancement of Science (AAAS) and in 2004 was elected a Fellow of AAAS. He is currently a member of the Board of Directors of the California Farm Bureau Federation and was a Sheldon Traveling Fellow at Harvard University where he received his Ed.D and MAT. He received a BS in Physics from UCLA.

PAUL MULLER
Co-Owner, Full Belly Farm

Paul Muller, can trace his farming roots back many generations on both his mother and father’s sides of the family. He grew up on one of the last dairy farms in San Jose, California, where the surrounding residents were able to drive in and pick up their dairy products direct from the farm. Urban development forced his family to close their dairy and move to the northern Sacramento Valley where they are still farming. Muller studied at California Polytechnic State University in San Luis Obispo and the University of California at Berkeley, moving on to farm organically, independently of his family. Muller is hugely influential as a writer, speaker and organizer of community events and was involved in the founding of California Certified Organic Farmers. He has been voted onto the CCOF Board of Directors several times, is a founding board member of Capay Valley Vision and is an active board member of the Yolo County Land Trust.


**GARY PATTON**

Executive Director, Planning and Conservation League

Gary Patton is the Executive Director of the Planning and Conservation League, and the Planning and Conservation League Foundation. Based in Sacramento, PCL is working for a fundamental reform of the state's planning process, to make sure that our future growth is not only good for the economy, but that we preserve and protect our spectacular natural environment, and achieve our social equity and public health goals in California’s local communities. PCL has working for over 40 years for a system of laws to keep our state both healthy and productive. Patton's previous job assignments have included: environmental attorney in private practice; member, Santa Cruz County Board of Supervisors (for 20 Years); General Counsel, PCL-PCLF; Executive Director, LandWatch Monterey County.

**SUSAN ROBERTS**

Director, Food and Society Policy Fellows Program, Thomas Jefferson Agricultural Institute

Susan Roberts is committed to developing strategies for health promoting just, sustainable food systems, catalyzing greater health among individuals, environments, and nations. She seeks to integrate professional expertise and education of food, health, food systems, and law through a variety of avenues to affect food systems through policy. Roberts is the Director of the Food and Society Policy Fellows Program funded by WK Kellogg Foundation through the Thomas Jefferson Agricultural Institute and also works on staff at the Drake University Law School Agricultural Law Center analyzing food policy as it relates to food security, sustainable agriculture, and health. Roberts is the principle in Roberts Law Firm, PLC and in Sue Roberts Health Concepts, a health and wellness consulting firm specializing in obesity policy. Roberts is the recipient of the 2003 National Environmental Nutrition Award, the 2004 Iowa Public Health Nutrition Advocate Award, and the 2004 Association of State and Territorial Public Health Nutrition Director’s National Award for Nutrition Advocacy.
RICHARD ROMINGER
Rominger Farms, Yolo County; former Secretary, California Department of Food and Agriculture; former Undersecretary, USDA

Richard Rominger is a California farmer of alfalfa, beans, corn, rice and other crops, near Winters, California. He headed the California Department of Food and Agriculture from 1977 to 1982 and served as Deputy Secretary of Agriculture under President Clinton from 1993 to 2001. During his tenure, he assisted the Secretary of Agriculture, Dan Glickman, in supervising the USDA, charged with a mission that included management of farm programs, conservation programs, domestic food assistance, research and education and other functions. As President of the Alumni Associations of the University of California, Rominger is serving as an ex-officio Regent for a one-year term beginning July 1, 2005. He was on the board of the American Farmland Trust from 1986 to 1993 and later in 2001. He has been active in a number of professional agricultural organizations concerned with soil and water policy, education, research and development, and was an advisor to several universities in California, including UC Davis and UC Riverside. Rominger received his bachelor’s degree in Plant Science from the University of California, Davis.

STEVE SHAFFER
Director, California Department of Food and Agriculture, Office of Agriculture and Environmental Stewardship

Steve Shaffer is Director of the Office of Agriculture and Environmental Stewardship for CDFA, the position he has held since November 2000. The office is comprised of an outstanding group of scientists who address environmental issues related to agriculture using a multidisciplinary approach. In this capacity, Shaffer represents CDFA on a number of environmental, energy and natural resource management planning, implementation and monitoring activities as they relate to agriculture. He has been involved in land use, air, water, energy and wildlife policy related to agriculture, including the support of the production and use
of biofuels, since 1981. Shaffer is currently serving on the Delta Protection Commission, the board of the CA Biomass Collaborative, on the Interagency Bioenergy Workgroup, and the Climate Action Team.

EDWARD THOMPSON
California State Director & Senior Associate, American Farmland Trust

Edward Thompson, Jr. became California state director for American Farmland Trust in 2003, after serving the organization since 1981 in various capacities. During his career at AFT, Thompson has been involved in nearly every aspect of farmland protection. In California, he helped draft the state’s right-to-farm law and legislation establishing the California Farmland Conservancy Program. Thompson also orchestrated AFT’s 1995 study Alternatives for Future Urban Growth in California’s Central Valley, which helped put farmland preservation on the map in the state’s most important agricultural region. Thompson also collaborated with the late Marc Reisner, author of Cadillac Desert, on a study of how more secure water rights for California farmers could encourage farmland preservation.

TOM TOMICH
Director, UC Sustainable Agriculture Research and Education Program; Director Agricultural Sustainability Institute, UC Davis

Tom Tomich joined the University of California Davis faculty in January 2007. He is founding director of the new Agricultural Sustainability Institute, inaugural holder of the WK Kellogg Chair in Sustainable Food Systems, and professor of community development, environmental science and policy at UC Davis. Tomich also serves as director of the UC ANR statewide Sustainable Agriculture Research and Education Program and was principal economist for the World Agroforestry Centre from 1994-2006. During that time, Tomich worked with the ASB Partnership for the Tropical Forest Margins, leading long-term collaborative partnerships at sites in the Amazon, Congo Basin, and Southeast Asia, aiming to raise
productivity and income of rural households without increasing deforestation or undermining essential environmental services. Tomich also spent 10 years as a policy advisor and institute associate with the Harvard Institute for International Development and served as a lecturer in economics and public policy at Harvard University.

**CONSTANCE WASHBURN**  
**Education Director at Marin Agricultural Land Trust**

Constance Washburn, Education Director at Marin Agricultural Land Trust (MALT) for the past eleven years, is working to reconnect people with local farms and food. Washburn started a hikes, tours, and talks program and has trained over 150 volunteers who lead tours and educate the public regarding the importance of local agriculture. She is the founder of the Marin Agriculture and Education Alliance (MAEA), a consortium of agencies that work throughout the county to promote agricultural literacy for a sustainable food system, training teachers, school administrators, parents, and students. MAEA recently completed a feasibility study for an Educational Farm and Garden project for Marin. Washburn was a founding member of the Marin Food Systems Project and sits on the Marin Food Policy Council.

**DICK WALKER**

**Chair, California Studies Center, UC Berkeley**

Professor Walker’s interests include economic geography, regional development, capitalism and politics, cities and urbanism, resources and environment, California, class and race. His best known work is in economic geography, especially *The Capitalist Imperative: Territory, Technology and Industrial Growth* (Blackwell, 1989), with Michael Storper - one of the most cited books in the field. Since 1990, Professor Walker’s focus has been on California, a major economic, political and cultural hearth of world capitalism. Walker served five years as Department Chair, 1994-99, helping to re-shape Berkeley Geography. He has many books to his credit, and has edited the journal *Antipode* throughout the 1990s. Walker has been Chair of a statewide California Studies Association and of a California Studies Center at UC Berkeley since 2000.
CAROL WHITESIDE
President, Great Valley Center

Carol Whiteside is the President of the Great Valley Center, an organization she founded in August 1997 to promote the economic, social and environmental well-being of California’s Central Valley. Whiteside served as the Director of Intergovernmental Affairs for Governor Pete Wilson on issues of land use, finance and restructuring and economic development. She was Assistant Secretary at the California Resources Agency and specialized in resource conservation, land use and growth management issues. Whiteside also served on the Modesto City Schools’ Board of Education, the Modesto City Council, and was elected Mayor in 1987. Whiteside is a graduate of the University of California at Davis.

BRONWYNNE WILTON
PhD Candidate, School of Environmental Design and Rural Development, University of Guelph

Bronwynne Wilton is a PhD Candidate in the Rural Studies program in the School of Environmental Design and Rural Development at the University of Guelph in Guelph, Ontario, Canada. Wilton holds a M.S. in Landscape Architecture (Rural Planning) and a B.S. (Agriculture) from the University of Guelph. Wilton is also a founding member of the Ontario Farmland Trust and currently sits on it’s Board of Directors. She is the coeditor of the recently released book Farmland Preservation – Land for Future Generations and is a sessional instructor in the Department of Land Resource Science at the University of Guelph. Wilton is currently conducting research related to the attitudes and behaviors of horse farm owners in the urban-rural fringe areas in Ontario, Canada.
DAVID ZILBERMAN
Professor, Agricultural & Resource Economics, UC Berkeley

David Zilberman has been a professor in the Agricultural and Resource Economics Department since 1979. He is currently the director of the Giannini Foundation and a fellow of the American Agricultural Economics Association. His research interests are in agricultural and nutritional policy, economics of technological change, economics of natural resources and microeconomic theory. He received his B.A. in Economics and Statistics from Tel Aviv University in Israel and his Ph.D. in Agricultural and Resource Economics from UC Berkeley.
EXPLICIT rules / IMPLICIT tactics

Protective planning policies threaten farmland at the urban edge by imposing the urban and rural environments and investing in its wetlands. Managing and enriching this landscape requires reversing and decomposing the edge into a dynamic, interactive urban condition that is valued in different ways by different interests. This project seeks to reframe a set of rules and perceptions that can be manipulated through design, to formulate a set of diverse innovative uses and processes to the long-term survival and potential of this landscape.

The project explores a seemingly marginalized and threatened agricultural community at the intersection of the boundaries of Vancouver, BC, Canada [1, 2]. Through careful observation and interaction, a series of participatory (artworks, installations, and cooperative ownership) is revealed. Artistic and performance-based practices thus become a tool for social change, making way for new agricultural practices [3].

Context

1. Images from a marginalized landscape
2. McLennan Agricultural Management Area
3. Agriculture at the Metropolitan Edge

SOA
UBC
School of Architecture
University of British Columbia
Wastewater-Irrigated Urban and Peri-urban Agriculture Hyderabad City, South India
Socio-economic Dynamics and Policy Implications

Dr. Stephanie Buechler
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This study draws on action research conducted by Buechler and Devi between 2001-2006 on urban and peri-urban agriculture around the twin cities Hyderabad and Secunderabad (pop. 7 million), Andhra Pradesh state, India. Hyderabad is semi-arid, with a short and unpredictable monsoon season; water is pumped long distances from two rivers in the state to meet urban water demand. The wastewater produced by the city is a mix of urban residential, commercial, hospitals and industrial liquid waste that is released, largely untreated, into the Musi river and into a series of downstream irrigation canals and man-made ponds. Over fifty countries worldwide make use of wastewater as a critical source of irrigation for agriculture, principally in and on the fringes of cities.

This production supports livelihoods, provides food and creates green spaces in urban spaces. In the urban area, flowers, palm and banana plant leaves for ceremonies as well as fodder grass for milch buffaloes and edible crops include leafy green vegetables, herbs and paddy rice are produced. In the peri-urban area, mainly leafy vegetables, fodder grass and paddy are grown. The study found that, from the field to the market, the groups dependent on this agriculture are stratified by gender, caste and class. Women (producers and field laborers) tend to be involved in labor-intensive vegetable and herbs that can be grown on small rented plots of land and bring more regular income. Landowners and renters are demarcated by caste, migration status and cropping patterns.
The future of the urban producers' livelihoods is currently at risk due to government action to prevent access by urban farmers to their lands along the river citing plans to develop the area and to treat the water. Plans to treat the wastewater, however, have met with prolonged delays mainly due to the high cost involved. The authors argue that instead of blaming the producers, planners must instead support measures such as water pollution prevention and water reuse for industries and low-cost treatment options to make this profitable agricultural production less risky for producers, consumers and the environment.

Selected References:
Bridging the Gap with Agricultural Gateways

CONNECTING THE PEOPLE

Cultural Outreach
I start with outreach to potential rural life enthusiasts living in cities. I call this outreach “seedling”. I identify the best rural farm sites for rural learning experiences, and I arrange weekend immersion experiences for those who have responded to the seedlings. These experiences give the co-learners a great exposure to the concerns, the opportunities and the incentives that may capture their commitments to seek greater involvement in a rural and small farm settlement lifestyle.

CONNECTING THE LAND

Working Lands
Internships will encourage ACTIVE PARTICIPATION in projects like the making of ecological trail networks. Trails that are also wildlife corridors will help to secure, in perpetuity, selected easements through the rural landscape, joining wetland and hillock, forest and farmscape, helping to link neighboring farms and re-establishing neighborhood cohesion.

Bio-fuels, wind farms, rural community, and ecological enhancement will be hallmarks of the successful gateway strategy.
GATEWAYS become the symbol for STRATEGIES that can bring urban and suburban folks to rural life and rural place, as visitors, as interns, as future farmers, as bio-fuels convert all communities to sustainable lifestyles.

Gateways symbolize passage in two directions. The language of gateway joins INREACH to those in the cities to OUTREACH from co-learner advocates (hosts) of the farms of greater Minnesota. It’s the strategy I call SEEDING.

CONNECTING THE PEOPLE WITH THE LAND

Gateways will draw the farm visitors into many ways for co-learning and discovery. The positive opportunities and joys that rural life challenges can bring will invite participation in the strategy of FARM COUNTRY INTERNSHIPS.

Interns as learners may become FUTURE FARMERS, often with children, growing new family units linked with current farm families of guiding co-learners.

Anna Claussen
Masters of Landscape Architecture Candidate
Reclaiming our Agricultural Heritage
Fayetteville, Arkansas

Rapid growth and suburbanization are steadily depleting both farm and forest land in the Ozarks’ Highway 71 corridor, home of corporate giants such as Wal-Mart, Tyson Foods, and J.B. Hunt. The White River/Illinois River Ozarks Bio-region suffers from excessive nutrient loading from concentrated animal feeding operations. An organizational model is needed to persuade public and private interests to support an approach to development that considers sustainable farming and forest land as integral to open-space planning for the town fabric.

Population: 67,158
Total Area: 43 square miles
Density: 1,560 per square mile
Open Space: 10 percent

Work has begun on an ecological, watershed-based inventory of forest land in Fayetteville and the city’s class 1 and 2 farmland. Partnering with the Nature Conservancy, the Fayetteville Natural Heritage Association effort was funded by an urban forestry grant.

Fayetteville 2025 Plan

The Fayetteville 2025 Plan envisions a green zone around Fayetteville consisting of forested hills with pasture and river corridors of agricultural and forest land that penetrate the city. The city has asked the state legislature to consider Transfer of Development Rights as an option to help facilitate the plan. To garner support, Farm Bureau members are being informed.

Building coalitions exemplified by the Weston, Massachusetts, model that understand how farm land and forest land can be obtained and managed as part of open-space planning linked to passive and active recreation, trails, local schools and educational efforts is vital to a sustainable future for Fayetteville.

The author’s farm shown below is indicative of the farmland and forestland mix of the hilly Ozarks region. Hill land is most suitable for pasture while river valleys are suitable for pasture and vegetable production. Open space planning can recognize and conserve this cultural and physical land use mix.

Model of Parcel Size and Site Type

The model identifies larger tracts of land that are being investigated for forest size, health, and diversity as part of the farmland/forestland conservation effort. A similar planning model can identify larger tracts of agricultural land.

University of Arkansas
Department of Landscape Architecture

Agriculture at the Metropolitan Edge
Opportunities to Strengthen the Local Food System in Southeastern Michigan

Key Findings

- 80% of consumers believe it is important to have local foods available.
- Nearly half of all consumers surveyed were willing to pay a premium for local foods.
- Consumers are most interested in fresh produce, eggs, beef, milk, and grains.
- Over half of shoppers would shop exclusively for local foods.
- 70% of consumers were interested in increasing their local purchases.
- Farmers interested in local food sales need to operate small or mid-size farms.
- Part-time farmers showed consistently higher interest in increasing their local sales.
- Grain producers in the region are interested in more marketing alternatives.
- Many producers expressed interest in heritage and agricultural tourism.
- 80% of distributors surveyed carry at least some local foods currently.
- Over half of the distribution noted that they received requests for local foods.
- Many of these distributors reported the strongest demand was for local produce.

Notable barriers present new opportunities

- Barriers articulated by consumers purchasing local foods revolve around availability, convenience, and information about what is local.
- Producers’ top barriers were lack of local processing facilities and lack of local distribution systems.
- Barriers listed by processors were price, communicating with producers, and insufficient demand from distributors.
- Distributors (broad communication with local producers, the amount of time it takes, and the discrepancy between consumer and retailer demand for local produce) are the top reasons against distributing more local foods.
- Retailers reported insufficient supply, seasonality, price, and connecting with producers as the largest barriers to increasing local foods in their inventory.
- While producers and consumers expressed strong demands for more local foods, their goals are not achieved by the intermediaries that connect them due to the end of the system.

Methodology

Survey Goals

Survey food system actors across five major sectors to:
- Assess current trends/practices
- Gauge future interest in local food
- Evaluate real and perceived barriers
- Collect basic demographic data

Survey Implementation & Response

Producers, processors, distributors, and retail survey data were sent to randomly selected stakeholders by email. Consumer surveys were collected in person at a range of food retail locations throughout the region.

Producer survey: 481 (12 of 80 surveys mailed)
Processor surveys: 101 (8 of 77 surveys mailed)
Distributor survey: 293 (2 of 45 surveys mailed)
Retailer survey: 249 (16 of 147 surveys mailed)
Consumer survey: 248 surveys collected in-person

Research Partner

The Food System Economic Partnership

The project obtained assistance from the Food System Economic Partnership to collect data from producers, distributors, and retailers.

Next Steps

- Planning results from recommendations for many farmers, current activities with the Food System Economic Partnership.
- Direct results from the Food System Economic Partnership.
- The Food System Economic Partnership.

Case study: UBC Farm

The University of British Columbia’s 55-acre farm illustrates the unique context influencing urban-edge agriculture. The farm suffers from significant soil limitations that, in many locations, would render the farm unsuitable for agriculture. However, because the farm is located in Vancouver, it is able to tap into consumer demand for local, organic produce and operate a successful farm market, CSA program and restaurant sales. The benefits of the urban-edge location tip the scales and justify the effort needed to address the site’s soil limitations.

Conclusions & Implications

- Due to urban proximity, direct marketing and agriculture are important to many farmers as strategies to achieve financial viability.
- Factors such as location along a major road, farmer cooperation, conflict with urban neighbors, municipal bylaws and development pressure significantly impact the viability of farms near urban areas. These factors often determine a farm’s success or failure, regardless of the farm’s physical capabilities.
- Urban-edge agriculture is valuable to British Columbia for economic and food security reasons, and is characterized by high risks and high rewards. Innovative planning and government support is needed to keep pace with the evolving role of agriculture and ensure that farmers can reap the benefits of an urban-edge location while avoiding its limitations.
Integrating Food Systems into the Public Health Agenda: Opportunities for Alameda County

Lucrecia Farfan-Ramirez & Navina Khanna
UC Cooperative Extension, Alameda County

As a nation, we face a growing concern about diet-related chronic health problems and the rising cost of health care: direct and indirect costs in subsidized medical care are growing. Addressing these concerns requires that we re-think strategies of food-related health promotion and disease prevention.

Numerous studies demonstrate that diets rich in fruits and vegetables are associated with reduced risk of several chronic diseases, including cancer, diabetes, obesity, and heart disease. However, a growing number of Alameda County residents lack access to fresh and healthful foods, and are unable to consume the recommended servings of fruits and vegetables.

Obesity and poverty are related, as demonstrated in this figure, and incidence of diet-related chronic disease correlates with social inequities (ACPHD, 2006).

Nutrition education has long been part of the public health agenda, but because this strategy emphasizes the individual’s behavior and choices, it does little to address the root causes of diet-related chronic disease. Individuals can only make healthy food choices if a healthful local food system exists. Systemic change that addresses the inequities in our food system is the first step to reducing incidence of diet-related chronic disease.

In the current urban food system, most residents spend their dollars on food that has been produced, processed, and packaged far away. These foods are often high in fats, sugars, and calories, but low in nutritional value.

With its legacy of fertile soils, abundant agricultural production, cultural diversity, and leadership in trade and processing, Alameda County is ripe for a healthful food system. Such an effort will require significant collaboration between public health, planning, policy-makers, and place-based communities.
Integrating Food Systems into the Public Health Agenda:
Opportunities for Alameda County

Lucrecia Farfan-Ramirez & Navina Khanna
UC Cooperative Extension, Alameda County

Agriculture
- Keep Land in Production
  About 250,000 acres in Alameda are devoted to agriculture. Protect this open space and create market opportunities to support growers of edible product.
- Expand Agricultural Land
  Curb development on quality soils and infill urban areas with gardens for food production. Alameda County has 434 square miles of unincorporated land, vacant areas in cities, and a climate ripe for fruit and vegetable production. Use urban, peri-urban, and county land for ecological agriculture.

Processing
- Create local processing centers for county-grown food (e.g., freezing, canning, and drying produce to make convenient foods available year-round for urban consumers).
- One job in Alameda County food processing supports 7 ½ additional jobs throughout the region: e.g. manufacturing, distribution, warehousing, testing, service (Economic Development for Businesses, 2001).

Distribution
- Implement policy and infrastructure to enable county and regionally-grown snack and meal programs in all schools and public institutions.
- Work with neighborhood convenience stores to stock regionally and county-grown produce.
- Ensure that all fruit and vegetable markets accept EBT.
- Work with private and grassroots agencies to distribute county produce (e.g. Alameda County Community Food Bank member agencies; community-based farm stands; local food cooperatives; community centers).

Consumption
- Continue nutrition education and expand programs to include garden and food processing experiences.
- Work with eaters to develop culturally appropriate processed food from county-grown produce.
- Increase participation in federal food assistance programs. In Alameda County, 45% of residents eligible for food stamps do not receive them (CFPA, 2002). Emphasize use of these dollars for regional and county-grown produce.

Waste
- Continue and expand home composting program.
- Distribute finished compost for home, community, and school gardens.
Bay Area Farmland At Risk

One out of every four acres of Bay Area farmland is at risk of sprawl development.

Bay Area Farmland At Risk of Sprawl Development

<table>
<thead>
<tr>
<th></th>
<th>Total Farmland</th>
<th>High Risk Farmland</th>
<th>Medium Risk Farmland</th>
<th>Total At-Risk Farmland</th>
<th>Percent Farmland At Risk</th>
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<td>Grand Total</td>
<td>622,512</td>
<td>49,114</td>
<td>95,815</td>
<td>144,929</td>
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Ceago Vinegarden Resort & Spa
A New Ruralsem Development in Northern California Wine Country

Location & History
Ceago Vinegarden, located along the northern shores of Clearlake in Lake County, California, was created by Jim Fetzer in 2001. The initial vision for Ceago was to create a working Biodynamic® farm and visitors center as the foundation for a new wine & lifestyle brand.

Ceago is located on 163-acres of lakeside agricultural land previously farmed for walnuts.

Beginning in 2001 the land was transformed into a Biodynamic® farm that, along with wine grapes, now produces olives, lavender, a variety of fruit crops, a large vegetable garden, and is landscaped with a mix of Mediterranean decorative plants.

Today Ceago is...
A growing business based around the farm and visitors center. Ceago produces wine, olive oil, lavender oils & lotions, farm-fresh eggs and a wide variety of fruits & vegetables used for on-farm events & sold through the visitors center. There is a 600+ member wine club with special events and activities at the lake. Wines are distributed in 23 States & 5 countries.

Resort & Spa Plan
In April 2006, the Lake County Board of Supervisors gave unanimous approval of the General Plan of Development for the Ceago Resort & Spa. The plan was vocally supported by the Sierra Club & Farm Bureau.

The approved plan includes a 50-room hotel with spa & café, 50 individual lakeside cottages, retail & restaurant space, and 63 vineyard villas. Themes of health, wine, food, education, recreation & nature influence the project design and program offerings.

New Ruralsem Elements
- Farm based on concept of “sustainable agriculture”
- Wine & agro-tourism provides direct link to urban consumers
- Maintenance of agricultural production central to development plan
- Sensitive development plan and “green” technologies

Project Strengths
- Site Selection - Prime agricultural land in emerging wine region
- Agricultural & Development History - Owner has track record of quality development & sustainable agriculture
- Diverse Products - Farm produces finished agricultural products, tourism, & education

For a site visit and more information contact Josh Metz at Ceago (707) 274-1462, josh@ceago.com
Farming at the Urban Edge - Merced County Case Study
Maxwell Norton
UC Cooperative Extension

Material and Methods
Farming at the urban edge involves challenges in the cultivation of agricultural commodities produced nearby. The edge segments are at risk due to urban sprawl and development pressures. This case study examines the interaction between urban and rural landscapes in Merced County. The study focuses on the cultivation of almonds and peaches in the UC Cooperative Extension Area.

The research involved field visits, interviews with farmers, and analysis of remote sensing data. The study area included the Merced County agricultural region and the surrounding urban areas.

Results
The study identified several challenges faced by farmers at the urban edge:

- Urban sprawl and development pressures
- Decrease in agricultural land availability
- Increased competition for water resources
- High labor costs
- Limited access to markets

Complaints from Urban Neighbors
- Noise and traffic
- Visual impacts
- Change in community character

Adaptive Measures Taken by Farmers
- Change in cultivation practices
- Use of new technologies
- Diversification of crop varieties

Conclusion
The study highlights the need for integrated approaches to address the issues faced by farmers at the urban edge. The results suggest that policies and practices are required to support the transition of agricultural lands to sustainable urban development.

A full paper will be submitted to California Agriculture, published by UC Agriculture & Natural Resources.
Oil Dependent Food Systems

Conventional food systems which supply the bulk of the American diet are highly dependent on fossil fuels. This has resulted in negative impacts to human and environmental health, and a food system that is vulnerable to the impacts of Peak Oil.

Oil is a finite resource.

“Peak Oil” refers to the point in time when global production reaches a peak and begins to decline. Experts believe that peak oil has already been reached or will soon be reached.

Oil Free Food?

After Peak Oil, cities will need to be fed using a fraction of the energy currently invested. Developing local infrastructure and networks for local food production is critical to enhancing urban food security in post Peak Oil city.

Energy Conservation through Community Design

Contrary to most Peak Oil planning which pursues renewable energy sources as a solution to Peak Oil, Peaking without Oil focuses on reducing energy consumption and raising quality of life through the transformative design of existing cities.

CASE STUDY: San Buenaventura

Energy consumed by Ventura County’s regional agriculture can be reduced by: 1) establishing greater connections between county production, consumption and available resources, and 2) localizing food processing and distribution centers.

Underutilized Resources for Urban Agriculture

Local food security can be enhanced by developing an urban agriculture system that takes advantage of available water, compost, and labor sources. Growing food where people live can greatly decrease energy required for production.

Transforming an Oil Dependent City

Localizing basic resources and development footprints can assist the City in transitioning from oil dependence and increase space for urban agriculture.
Captions, clockwise:

Symposium Banner; Donlyn Lyndon with Sibella Kraus; Ed Thompson, AFT, Andy Fisher, CFSC and Susan Clark, Columbia Foundation; organic strawberries; organic wine; Jeanne McCormick, rancher; campus view, center.
Captions, clockwise:

Slow Food table; Andrea Mackenzie; Betty Deakin and Karen Frick; lettuces; Capay Farms display; CDFA Secretary A.G. Kawamura, center.
Captions, clockwise from top:

Sally Fairfax, Constance Washburn, Rex Laird; Carl Anthony, Ford Fellow; Susan Roberts, Kellogg Foundation and friend; campus view; Symposium Sponsor list; Middle: Holly King, top center; Martha Guzmán, bottom center.