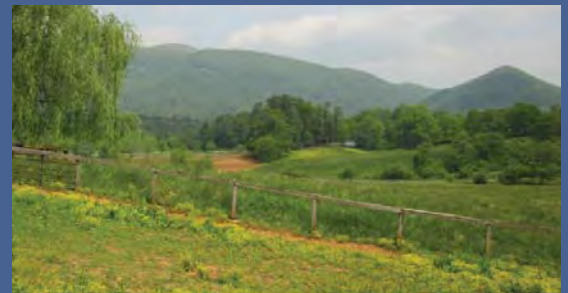# Regional Approaches to Sustainable Development:

Linking Economic, Transportation, and Environmental Infrastructure in Rural and Small Metropolitan America

NADO
NATIONAL ASSOCIATION OF DEVELOPMENT ORGANIZATIONS
RESEARCH FOUNDATION

Cover image credits: left, flickr user Marilyn M; bottom right, Bear Lake Valley Blueprint. All other photos in the report are credited to the NADO Research Foundation, unless otherwise noted.

The National Association of Development Organizations (NADO) is a national membership organization for the nation's 540 regional development organizations (RDOs) focused on strengthening local governments, communities, and economies through regional strategies, partnerships, and solutions.

NADO and its membership of RDOs are part of the nation's intergovernmental partnership system of federal, state, and local officials. A core part of NADO's membership is the network of more than 380 multi-county Economic Development Districts (EDDs) designated by the U.S. Economic Development Administration (EDA) through its partnership planning program. The vast majority of RDOs are public-based entities governed by a regional policy board with majority control by local elected officials. As mandated by various federal programs, RDO boards often include business, nonprofit, education, and community leaders. In addition, the legal basis for many RDOs originates under federal law and through state statute, gubernatorial executive order, or joint powers resolution of local governments.

While many RDOs in smaller metropolitan and rural regions were originally founded solely as EDA EDDs, the vast majority have expanded and diversified their programs and services over the years. Now, most play a key role in community and economic development, transportation planning, emergency management and homeland security preparedness, Geographic Information System (GIS) data analysis and information management, business development finance, technology and telecommunications, and workforce development.

RDOs are often known locally as councils of governments, area development districts, economic development districts, planning and development districts, planning and development commissions, regional development commissions, regional planning commissions, and regional councils.

Founded in 1988, the NADO Research Foundation is the nonprofit research affiliate of NADO. The NADO Research Foundation identifies, studies, and promotes regional solutions and approaches to improving local prosperity and services through the nationwide network of RDOs. The Research Foundation shares best practices and offers professional development training, analyzes the impact of federal policies and programs on RDOs, and examines the latest developments and trends in small metropolitan and rural America. Most importantly, the Research Foundation is helping bridge the communications gap among practitioners, researchers, and policy makers.

Executive Summary

This report explores regional sustainable development initiatives in rural and small metropolitan America. Regional development organizations (RDOs) working in all types of communities across the country are designing and implementing strategies to create stronger, more dynamic, more resilient regional economies that are based on quality of place. By bringing together diverse stakeholders, conducting robust data collection, seeking regional consensus, and strategizing rural-urban linkages, RDOs are uniquely positioned to approach sustainable development from a holistic viewpoint. The broad perspective offered by RDOs allows them to analyze a region based on the multiple, interweaved layers of systems that drive regional growth. This holistic viewpoint enables regions to collaborate on long-term visions for regional growth and undertake strategic planning and decision-making about key investments.

Through integrating land use and natural resource systems; transportation, infrastructure, and energy networks; local and regional governance processes; economic systems; and cultural and working landscapes, RDOs shape regional sustainable development and provide key services to position regions as competitive players in the global economy. RDOs conduct analysis and develop strategies to support and enhance assets and strengthen economic development based on quality of place.

Many of the nation's RDOs serve regions that encompass an urban core and rural communities whose economies are inextricably linked. Traditionally, rural economies were largely based on resource-dependent industries, such as agriculture, forestry, or energy production. Today, RDOs in rural areas are working to maximize inherent competitive advantages and foster local, regional, national, and global connections and value chain development. A regional approach to planning and development issues requires strategies that nurture those systems that cross jurisdictional boundaries and connect rural and urban communities, such as water supply systems, food production and distribution, transportation networks, energy supply chains, and others.

This report highlights several RDOs working in rural and small metropolitan regions to foster more sustainable approaches to regional development, including examples from California, Michigan, North Carolina, and Utah. The case studies featured here illustrate the opportunities available to RDOs to undertake sustainable development initiatives using a systems-based approach. These opportunities include data analysis and tools, public engagement, transportation and infrastructure programs, asset-based economic development, cultural heritage and placemaking, and intergovernmental coordination.

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Integrating Planning Processes in Rural Regions and Communities

Partnership for Sustainable Communities' Livability Principles

- ### Provide more transportation choices

    Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

- ### Promote equitable, affordable housing

    Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

- ### Enhance economic competitiveness

    Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

- ### Support existing communities

    Target federal funding toward existing communities— through strategies like transit-oriented, mixed-use development and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

- ### Coordinate and leverage federal policies and investment

    Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

- ### Value communities and neighborhoods

    Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods— rural, urban, or suburban.

Source: Partnership for Sustainable Communities, http://www.sustainablecommunities.gov/aboutUs.html#2

RDOs in a variety of settings nationwide have begun to approach transportation planning, economic development, land use planning, and other planning programs and processes through the lens of sustainable development. Reflecting the federal Partnership for Sustainable Communities—a collaboration among the U.S. Department of Transportation, Department of Housing and Urban Development, and Environmental Protection Agency launched in 2009, which emphasizes a coordinated, thoughtful approach to land use, infrastructure, and economic growth—RDOs are using sustainable development approaches to improve and streamline their existing program delivery.

Sustainable development is a concept that operates on many levels and uses many terms, such as livability, smart growth, or triple bottom line development. Sustainability conjures up different images depending on the scale and context in which it is used: it might mean compact, walkable neighborhoods; mixed-use, transit-oriented development; preserved open space networks with abundant recreation opportunities; adaptive reuse of historic buildings; and many more. From a regional perspective, sustainable development integrates land use, economic, housing, environmental, and other planning processes and programs into a comprehensive approach to growth and development issues. This approach promotes sound decision-making to support quality investments that will have a lasting positive impact on a region or community.

Ultimately, sustainable development is about finding ways to improve Americans' quality of life. Sustainable approaches to community development incorporate measures that improve a person's day-to-day experience— such as shorter commutes or proximity to neighborhood parks—as well as broader measures that have more far-reaching, lasting impacts for a community as a whole, such as fair housing, quality education, and the restoration of critical natural resources. This concept aims to build a healthier and more equitable nation where residents and workers have more choices and see a reduced burden of housing and transportation costs.

To consider place-based, quality economic development, regions and communities are evaluating their assets, determining their goals, and articulating a shared vision for future growth. Sustainable regions and communities are empowered to support existing neighborhoods, strengthen critical capital investments, and transform unique assets into valued products and services for local benefit. This approach allows regions to better protect and enhance their cultural heritage, historic features, and natural assets, including working landscapes, wildlife habitat, and clean air and water. It reflects an attitude toward development that champions the durability and longevity of investments and relies on distinctive, high-quality design that will have lasting impacts.

Because sustainable development works on a range of scales and incorporates a variety of types of policies and programs, this approach calls for new paradigms in collaboration among local, regional, state, and national policymakers and leaders—public, private, and philanthropic—as well as practitioners in a number of specializations, including land use planning, economic development, housing, biology and natural sciences, finance and banking, transportation and civil engineering, design and architecture, health care, and building and real estate, among others. Since sustainable development initiatives aim to enhance and build upon the inherent strengths of a region, this is not an approach that can be systematized and mass-produced. Rather, sustainable development strategies are custom-made, designed to fit the unique opportunities and needs of a specific place. Sustainable development looks different in every urban, suburban, and rural community.

Collaboration across sectors, across jurisdictional boundaries, and across levels of government requires regions and communities to better strategize and align investment priorities to reduce the unnecessary barriers that often unwittingly prohibit good development and good governance. Robust, inclusive public involvement efforts based on a community-driven process that captures the input of diverse groups will result in plans that are more enduring. Additionally, sustainable development strategies that rise from a transparent decision-making process, under which policymakers and practitioners are held accountable and use tools to track and measure progress, will be stronger and more effective.

In all types of regions, but especially in rural communities, sustainable development means an emphasis on land-based resources and management of open space, forests, agricultural lands, food and water supplies, and other features. But it also means revitalization of small towns, choices about how and where to grow, cleanup of contaminated property, and finding ways to help communities survive and thrive in the twenty-first century global economy—especially those persistently poor parts of the country such as areas of Appalachia, Indian Country, the Delta Region, or the U.S.-Mexican border—without losing their treasured sense of identity. It means finding ways to not only preserve those cherished landscapes and critical resources, but also paths to creating vibrant, lasting communities that offer safe, reliable, affordable transportation choices and access to affordable housing and high-wage jobs, so that young people don't want to leave and families can grow in place. Rural sustainable development

requires new thinking about long-term job creation and opportunities for embracing the changing global economy.

Geography, demographics, history, amenities, and culture all influence how sustainable development strategies differ from one rural community or region to another. The many varieties of rural communities—agriculture-based, resort rural, tribes, small towns, exurban, and others—plus the nation's vast array of suburban and urban communities know that sustainable development requires partnerships of all types. The multiple economic, environmental, social, and other interdependencies among rural and urban places require regions, communities, and states to foster rural-urban linkages that better support dynamic, healthy places.

This publication describes the emerging tools and approaches that RDOs in America are employing to support sustainable development planning and implementation efforts in their communities. RDOs often act as a one-stop shop for regional planning and development. Many RDOs serve as a U.S. Economic Development Administration (EDA)-designated Economic Development District, and are responsible for developing Comprehensive Economic Development

Strategies (CEDS). Often, RDOs administer Metropolitan Planning Organizations (MPOs) and their rural counterparts, Rural Transportation Planning Organizations (RTPOs or RPOs).

RDOs typically provide technical assistance to local governments in their service areas, supplying guidance on land use planning or other issues. RDOs often administer a number of other state and federal programs, including workforce development programs, disaster mitigation planning, health and human services, regional transit, aging, small business finance, brownfields remediation, and more. Because RDOs offer so many of these programs under one roof, they are well-situated to undertake sustainable development initiatives that integrate multiple types of plans and programs. RDOs are implementing sustainable development initiatives to increase the utility and value of their work.

The regions and communities highlighted here represent some of the latest trends in regional sustainable development. As this is an emerging field, many more examples abound, and this document is not meant to be comprehensive, but the themes described here offer lessons that can be adapted in many types of regions.

source: Turner HD Media

source: Turner HD Media

Part 1:
Data Analysis and Tools

Effective planning processes are rooted in robust data collection and analysis. Plans developed with strong baseline data that paint a full picture of the region's past, present, and future empower planners and other stakeholders to use scientific observation and analysis to develop goals and strategies that are realistic and achievable. Urban and rural regions alike have assembled and analyzed data across disciplines to develop potential future growth scenarios. Collecting and analyzing data related to economic development, demographics, land use, environmental systems, transportation networks, and more allows a region's stakeholders to take stock of the current situation and uncover potential opportunities and challenges.

Utah

The Greater Wasatch Area in Utah represents a strong model of how to incorporate multiple sources of data across disciplines to provide a comprehensive view of a region's different systems and networks. This type of analysis reveals how investment decisions cause ripple effects across a region's land use, transportation, environmental, and economic systems. The tools developed by the public-private organization known as Envision Utah are now being used in Utah's more rural regions, and have been adapted for use in other metropolitan and rural regions nationwide.

The Envision Utah model grew out of a unique statewide project that began in the 1990s. High growth rates coupled with limited developable land and the desire to preserve high-quality natural resources led the state to examine alternatives to sprawl. State leaders sought ways to promote sustainable economic development that would maintain quality of place. In 1997, the Coalition for Utah's Future, a multi-issue public-private organization, kicked off a special initiative—which would later be branded Envision Utah—to explore growth and development issues in Utah. The project's initial focus was the Greater Wasatch Area, the 10-county region located just west of the Wasatch Mountains and east of the Great Salt Lake, with the understanding that the resources and tools developed from this effort would ultimately benefit the entire state. At the time, this region was projected to accommodate 80 percent of the state's total projected population growth.[1]

One of the partnership's first tasks was to develop a baseline model and conduct trend analyses, formulate projections, and model alternative growth scenarios. The baseline model compiled and analyzed multiple sources of data from state agencies and, most importantly, revealed the financial impacts of sprawl. The data phase

revealed many startling truths about the Greater Wasatch Area to the public, such as the following:

- Population was projected to grow from 1.6 million to 2.7 million residents by 2020 and to five million by 2050.

- Average commute times and vehicle miles traveled per capita would grow.

- Outdoor air quality would worsen as a result of greater traffic congestion and automobile usage.

- Much of the remaining vacant land along the Wasatch Front would disappear, with the amount of urbanized land quadrupling by 2050.

- More than half of all irrigated agricultural land may be lost to new development.

- Water rates would increase by 50 percent by 2020, and the cost of water infrastructure development would skyrocket.[2]

This data caught the attention of the region's citizens and state and local government leaders and brought growth and development discussions to the forefront of the public's consciousness. Working with state, regional, and local partners, Envision Utah hosted numerous workshops at which participants voiced their preferences for how and where the region should grow. Through discussing their options, weighing the objective data, and mapping their preferences for density, land uses, and conservation, participants helped to shape four possible growth scenarios, each scenario guided by a different assumption of future land use patterns and transportation networks.

Envision Utah worked with state, regional, and local agencies to conduct in-depth quantitative analysis to flesh out the impacts of these scenarios, including land use,

water consumption, and transportation network impacts, as well as an infrastructure cost model. With these data in hand, the partnership launched an outreach campaign in 1999 to foster a public dialogue about the region's future growth challenges and gather public opinion on which scenario represented the region's preferred future growth patterns. Ultimately, this process led to the creation of a long-term regional vision based on objective data, sophisticated modeling, and public consensus building (detailed in Part 2 of this report).

The tools developed as part of Envision Utah's initial scenario planning efforts in the Greater Wasatch Area have been adapted into additional projects elsewhere in Utah and adjacent regions in Idaho with communities seeking to establish a comprehensive, inclusive vision for future growth. The techniques that Utah's more rural regions have adopted to translate these lessons in their regions are described in Part 3 of this report.

Sacramento Area Council of Governments

The progress made in Utah in the late 1990s influenced another pioneer in regional scenario planning: the Sacramento Area Council of Governments (SACOG). SACOG serves a six-county region in California that is home to more than two million residents and includes the Sacramento metropolitan area, 22 municipalities, and rural, agriculture-based communities. SACOG serves as the MPO for the entire region and also serves as the state-designated Regional Transportation Planning Agency (RTPA) for four member counties. In conjunction with the organization's responsibilities in regional transportation planning and programming, SACOG coordinates regional land use, air quality, and housing. SACOG also provides assistance to local jurisdictions on efforts to advance local economic development plans, climate change initiatives, environmental protection strategies, and other similar efforts.

About a decade ago, SACOG's Board of Directors decided to place an increased focus on regional land use and development patterns; historically, as an MPO, SACOG's time and effort were focused primarily on transportation issues. Using Utah's work as a model, SACOG began to examine how and where the region was growing, and to explore the associated land use, transportation, and air quality challenges. Launched in 2002, the project ultimately became known as *The Blueprint Transportation and Land Use Plan*. From the beginning, SACOG strived to be as ground-based and democratic as possible, using high-quality GIS data
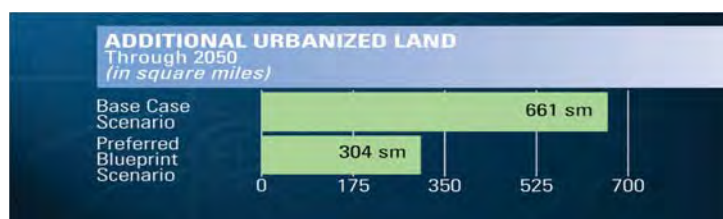
SACOG used objective analysis to calculate potential future land development according to different scenarios (source: SACOG).
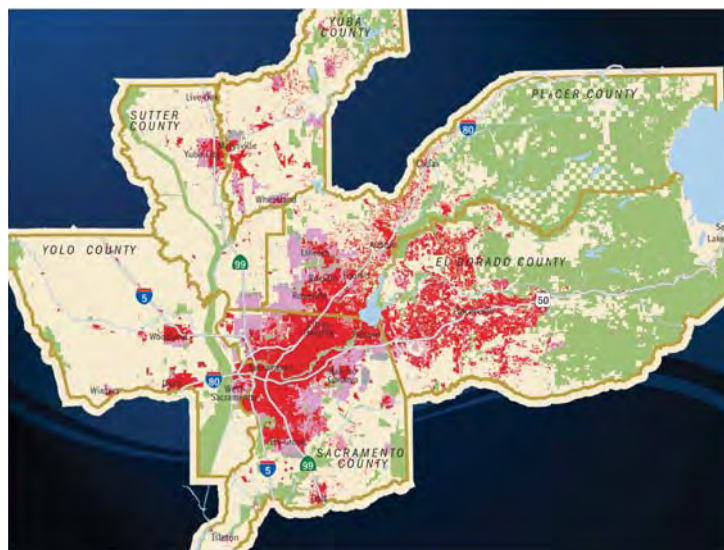
SACOG's Preferred Blueprint Map was adopted in 2004 (source: SACOG).

coupled with market-based economic data. By choosing to base the planning process on objective, scientific analysis to the greatest extent possible, SACOG's leadership aimed to avoid the classic fights between developers and slow-growth/no-growth advocates.

Many planners, and particularly regional planning organizations such as SACOG that are not tasked with local land use planning, often struggle to move from the planning stage to the implementation stage. SACOG's goal with the Blueprint process was to avoid "stranded inspiration": the sense that great ideas are formed, but get stuck in the conceptual stage. SACOG relied on strong data both in the planning and implementation phases to avoid producing an idealistic plan that was unusable on the ground. A primary goal of the Blueprint process was to develop resources that local governments could use to guide decision-making, based on the best available data and tools. The project's large datasets and cutting-edge tools were designed so that local decision-makers would know what it would take to apply the Blueprint's guiding principles in codes and general plans.

The data collection and analysis stage found at the beginning of the two-year project that the region was expected to grow by approximately 1.7 million residents between 2000 and 2050, taking the total population from 1.9 million to 3.6 million, a near doubling. The

region also expected to add about a million new jobs by 2050. The number of homes in the region would need to more than double to accommodate this growth, rising from 713,000 to over 1.5 million. The Blueprint project asked, where would these homes go? How would people get around? How much land should be developed to accommodate this increase? Using a scenario modeling process and vigorous public outreach effort (detailed in the following section), SACOG worked with residents to develop a preferred regional vision for growth.

The Preferred Blueprint Scenario was adopted by the SACOG Board in 2004. The adopted plan lays out a vision for the region that is characterized by efficient land use patterns, protection of natural resources, and a range of mobility and housing choices for residents and workers. The Preferred Blueprint Scenario projects that the region will need less than half of the land it would under a business-as-usual growth pattern.

The Blueprint has formed the basis for a number of other planning initiatives in the region, including the Long-Range Transportation Plan. SACOG has developed resources and technical tools to educate communities and facilitate local decision-making, including software simulation, photo simulation, and a Form-Based Code Handbook. SACOG also provides development review and technical assistance to member governments, as requested, and offers training workshops. Many local governments have incorporated the principles of the Blueprint into their local growth plans and codes, and SACOG's Chief Executive Officer Mike McKeever notes that implementation of what is essentially a voluntary plan has been happening at the local level much more quickly than expected.

McKeever states, "The bedrock planning principle behind the Blueprint planning and implementation process has been that people should have a choice in how they travel and where they live." Rather than "forcing" people to conform to an ideal planning vision, SACOG has focused on developing viable options for multimodal travel and varied land use patterns and housing types, to accommodate all preferences and shape a region characterized by a flexible range of selections.

The data analyzed in the Blueprint process showed that over the past 20 years, the region's population has grown while the amount of prime farmland has declined. If development patterns continued in this way, 661 square miles of additional land would be urbanized by 2050, much of it rural or working lands, including highly productive agricultural land. Under the Blueprint adopted by SACOG's board, this number would be

"The bedrock planning principle behind the Blueprint process has been that people should have a choice in how they travel and where they live."

reduced to 304 square miles, a reduction of more than half. To make this vision a reality, the region will not only have to realign its approach to urban development, but will also have to find ways to make the region's agriculture industry and environmental systems viable for generations to come.

Although the Blueprint process was a regional effort, McKeever acknowledges that the vast majority of the intellectual and technical capacity of the project was focused on the urbanized areas, referring to both the smaller towns of the region and the larger Sacramento metropolitan area. At the time it was being developed, the Blueprint was about the built environment, about construction and development and housing issues. Upon completion, SACOG's leadership realized that they needed to understand what drives the rural areas as much as they did for the urban areas; this realization formed the inception of the *Rural-Urban Connections Strategy* (RUCS), launched in 2008.

The Sacramento region encompasses a diversity of landscapes, including agricultural communities, large-scale farming operations, historic mining towns, forests, and urban centers, including the state capital. The region holds some of the most productive farmland in the world, because of its advantageous mix of soil types, clean water supply, and Mediterranean climate. The land also boasts numerous recreation and tourism opportunities and diverse wildlife habitat. Education and research activities at the University of California, Davis and its cooperative extension programs benefit area businesses and residents and the agriculture industry.
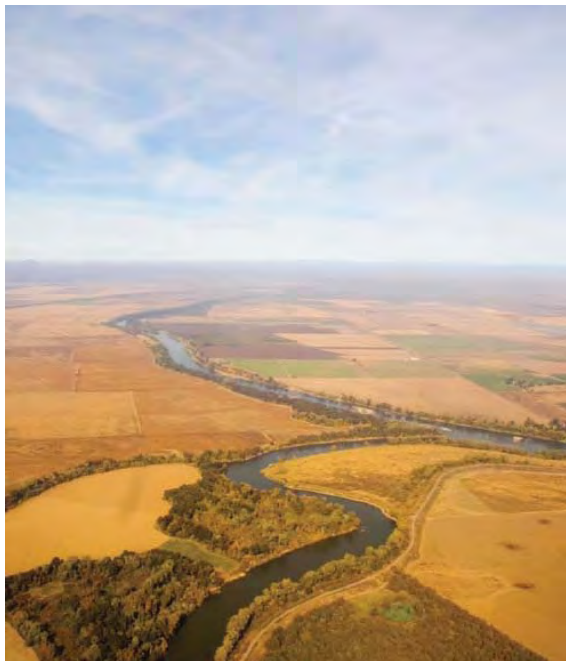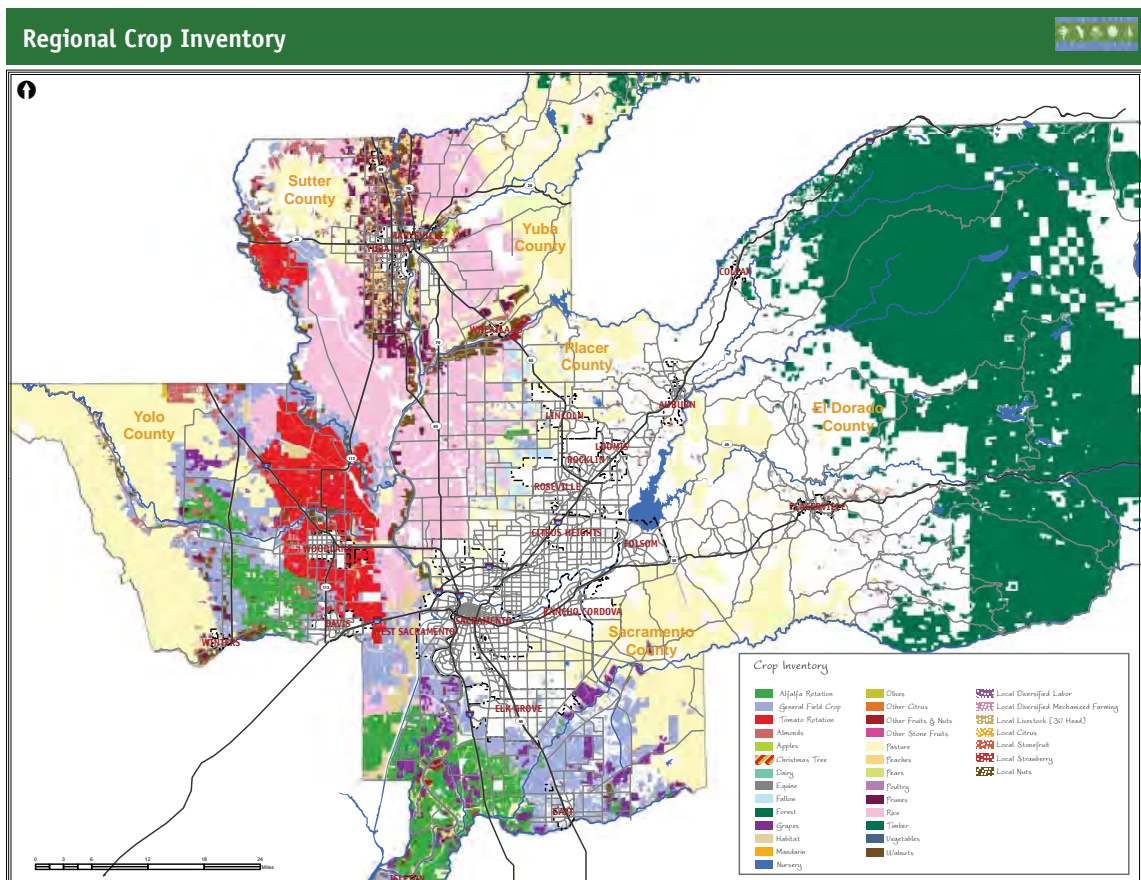
The Sacramento region holds some of the most productive farmland in the world (source: SACOG).

parcel-level crop maps and crop cost, yield, and revenue numbers; to estimates of demand for labor, water, and trucking by crop type; to traffic volume and road safety information; to fiscal analysis of small community infrastructure and service needs.

One of the initial steps of the RUCS process was an inventory of the region's rural lands. SACOG compiled data from a variety of sources to create a parcel-level crop map for the region that shows what is being grown where. The project team inverted the typical land use maps that show urban land uses in color-coded schemes and usually show agricultural uses as one color, such as green. The RUCS crop map show the opposite: all developed land is gray, and the differing agricultural uses are broken down into crop categories, which promote a better understanding of what is happening in agriculture areas.

SACOG worked with a group based at the University of California, Berkeley, to estimate an econometric model that would explain where, how, and why various crops are grown. From that, the team developed probability maps that estimate what will be grown where in any given year. This work built upon initial crop maps and crop economic data that were provided by researchers at the University of California, Davis. The crop map

In the same way that SACOG placed a strong emphasis on data collection and analysis in the Blueprint process, the RUCS initiative has relied on quantitative analysis to uncover the workings of the rural components of the region. SACOG has compiled and synthesized huge, complex data sets encompassing everything from
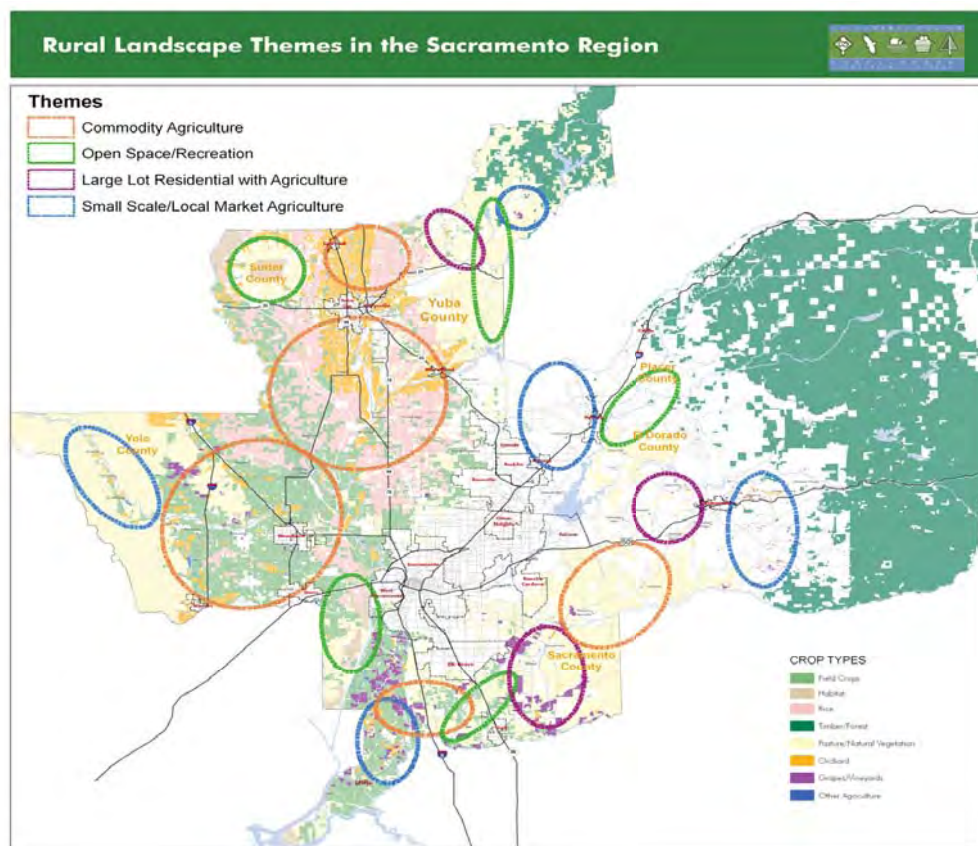
Regional Crop Inventory

SACOG's regional crop inventory map documents every type of crop grown in the region at the parcel level, organized by category (source: SACOG).

Rural Landscape Themes in the Sacramento Region

Themes
- Commodity Agriculture
- Open Space/Recreation
- Large Lot Residential with Agriculture
- Small Scale/Local Market Agriculture

SACOG has used the regional crop inventory to identify broader themes underpinning the rural economy (source: SACOG).

and underlying attribute data are the cornerstone to SACOG's analysis of agricultural viability. The data provide not only a high level of detail of rural land use and economic activity, but feed the tools that SACOG uses to estimate how that viability may change under future conditions.

The SACOG team has used this information to create scenario modeling tools that can evaluate how production practices, market fluctuations, and global events will affect growers' economic viability. SACOG adapted the I-PLACE³S software, a simulation tool, developed in the Blueprint process. I-PLACE³S allows users to apply land use designations to specific parcels and watch the implications of those decisions, and conduct a pro forma analysis of any type of proposed development on any given parcel. Initially, the tool was designed to analyze urban development scenarios, but now the model can also analyze agriculture scenarios.

The team uses I-PLACE³S along with the econometric model and other tools to analyze various possible future scenarios for agriculture. For instance, the models can estimate how Russian droughts and resulting higher grain prices affect farmers in the Sacramento region. Or, they can test how rising oil prices will impact fuel and fertilizer costs, thereby affecting viability and decisions to plant or leave a field fallow. Other factors that can be

tested include changes in labor costs, or water supplies and cost. The models can also test market conditions, by exploring how changes to business practices or commodity prices will affect agricultural viability and fallowing. Yet another model allows the user to take a typical diet for consumers in the region and translate that into crop demands and land needs to grow those crops. This suite of models provides a powerful toolkit that helps stakeholders better understand how market, regulatory, policy, and production changes can affect the viability of agriculture.

SACOG's tools are designed to work at all scales of analysis. At a macro scale, SACOG tools can help the region understand what affects agricultural viability and possible policies or economic development strategies that could support the industry. For example, results that show where and how much labor is needed for crops in the region can help decision-makers identify where housing and transportation services for agricultural workers would be best located. Trucking demand results will help the region identify key farm-to-market routes and where road improvements could help support the industry. At a micro scale, using SACOG's tools, a farmer could estimate return on investment by adjusting production variables and identifying those that most impact his or her operation.

The University of California teams performed the data collection and helped build the interactive tool, but SACOG houses the model and can manipulate it to perform their analyses. Since the product was built with public money, the model is in the public domain and can be adapted and used by other organizations and regions around the country. SACOG staff stresses that much of what they are learning through this model is intuitive, but having the data supports stronger, more defensible decision-making.

The Land-of-Sky Regional Council
Management Approach

The Land-of-Sky Regional Council (LOSRC), based in Asheville, North Carolina, serves a four-county region that includes the city of Asheville, small towns, mountainous landscapes, family farms, and a growing artist community. LOSRC serves as the EDA-designated EDD and the Appalachian Regional Commission (ARC)-designated Local Development District (LDD) for the region. LOSRC also administers the MPO for the urbanized portion of the region as well as the RPO for the rural areas. In addition, LOSRC provides a brownfields remediation assessment and loan program, housing and community development services, water and air quality planning, leadership on many clean energy initiatives, Area Agency on Aging (AAA) and volunteer services, rural transit management, workforce development, and land use planning services. Governed by a board made up of representatives of the member local governments, the LOSRC's adopted core values emphasize regionalism, support for a healthy economy and ecosystems, and strong, accountable local governments.

Participants of the 2011 NADO peer exchange event listen to LOSRC staff describe their programs.

The organizational management structure of LOSRC means that the staff works in teams, rather than silos, and approaches regional planning and development issues in a more comprehensive and integrated fashion. LOSRC Executive Director Joe McKinney credits this management structure with allowing the organization to be nimble and flexible to respond to new issues as they come up in the region, stating, "It can be time-consuming, but it is important to back out of the holes of specialization and see all the connections."

Similarly, LOSRC has created a regional Comprehensive Economic Development Strategy (CEDS) that is strategic and flexible, approaching economic development with a perspective that takes into account multiple primary systems at work in the region. The CEDS sets the overall regional strategies and informs the regional planning processes, and also serves as LOSRC's planning and development workplan. The most recent update of the CEDS, revised in 2010, focuses on greater regional cooperation to generate regional solutions to local problems. The CEDS organizes the region's top priorities into a tiered system which guides strategic decision-making. This approach has helped the organization to ensure that their programs are consistent with the goals outlined in the CEDS. Local Government Services Director Ron Townley says, "We created a document that actually serves as a guide for us, and it has helped us retain a competitive edge to pursue projects strategically that will benefit the region as a whole."

In 2010, LOSRC was awarded a $1.6 million grant through the federal Partnership for Sustainable Communities to develop a sustainable development plan for the region. Because the organization had already begun to integrate its economic development and transportation planning work with other program areas, LOSRC was well-positioned to undertake this initiative and strengthen existing collaborative relationships in the region in support of an overall growth strategy. Guided by a consortium of local governments, businesses, nonprofits, and other stakeholders, the project aims to ensure broad and diverse participation to promote economic prosperity, create a regional picture using existing plans and scenario models, and integrate multiple planning processes and programs into a regional vision that promotes rural-urban connections.

McKinney notes that LOSRC's board is always looking toward the future, which supports the organization's entrepreneurial approach to seeking out new opportunities to achieve regional goals. He encourages other RDOs to "try to stay one step ahead of local governments" by identifying emerging issues and anticipating member governments' upcoming needs, so that resources will be positioned ahead of time. Finally, the importance of building relationships based on trust with local governments has been key to LOSRC's successes in building regional consensus.

> The organizational management structure of LOSRC means that the staff works in teams, rather than silos, and approach regional planning and development issues in an integrated fashion.

Linking Lands and Communities

The Land-of-Sky Regional Council (LOSRC) developed the *Linking Lands and Communities inthe Land-of-Sky Region* initiative to develop tools to guide new growth while sustaining healthy ecosystems. Working with more than 40 local and regional partners, LOSRC assembled a team to gather data that assessed the region's natural systems and identified opportunities to link and protect these systems. Known as the regional green infrastructure system, this network consists of those natural features, such as waterways, forests, open lands, working landscapes, and habitats that supply the region with clean water, clean air, agricultural and forest products, recreational opportunities, cultural resources, carbon storage, energy resources, and a diverse plant and animal population, among other services.

Participants in the Linking Lands project's public outreach effort (source: LOSRC)

Amid high growth pressures during the mid-2000s, the region recognized that increasing residential and commercial development threatened to fragment and degrade the regional ecosystems, including the valuable services upon which the region's population and economy relies. Between 1987 and 2007, the region's population grew by 40 percent, and developed land grew by 65 percent; over that timeframe, cropland and forest land was developed at a rate of 325 acres per day.[3] Witnessing the fragmentation of large parcels of working lands and wildlife habitat, as well as rising water quality and air quality concerns, regional stakeholders recognized the great economic impact of the degradation of the region's ecosystem. The state also found that through retail sales, jobs, and tourism, outdoor recreation represents an economic value of $4.3 billion to the state.[4]

Since these natural systems don't conform to jurisdictional boundaries, approaching the project from a regional perspective was necessary. Furthermore, LOSRC's role as a convener of the region, one that can bring together multiple public and private sector stakeholders to make collaborative decisions, was essential. The regional approach to the project enables rural and urban communities to work together to identify the region's greatest resources, and long-term growth strategies that will bring regional benefits. Leveraging

funding from the Community Foundation of Western North Carolina, the Blue Ridge National Heritage Area, the Federal Highway Administration, and other partners, the Linking Lands project's three objectives were:

1. Create a conservation development network design and a plan for its implementation.

2. Develop a strategic conservation planning model which can be replicated across the 25-county Blue Ridge National Heritage Area and in other regions across the United States.

3. Create a forum for practitioners, citizens, agencies, and organizations to build a common understanding of the region's ecological systems and services and build relationships across sectors and municipal boundaries.

The project, initiated in 2008, was based on ecological resource assessments, the first major phase of work. Subsequent phases included: 1) gathering public input, 2) designing the green infrastructure network, and
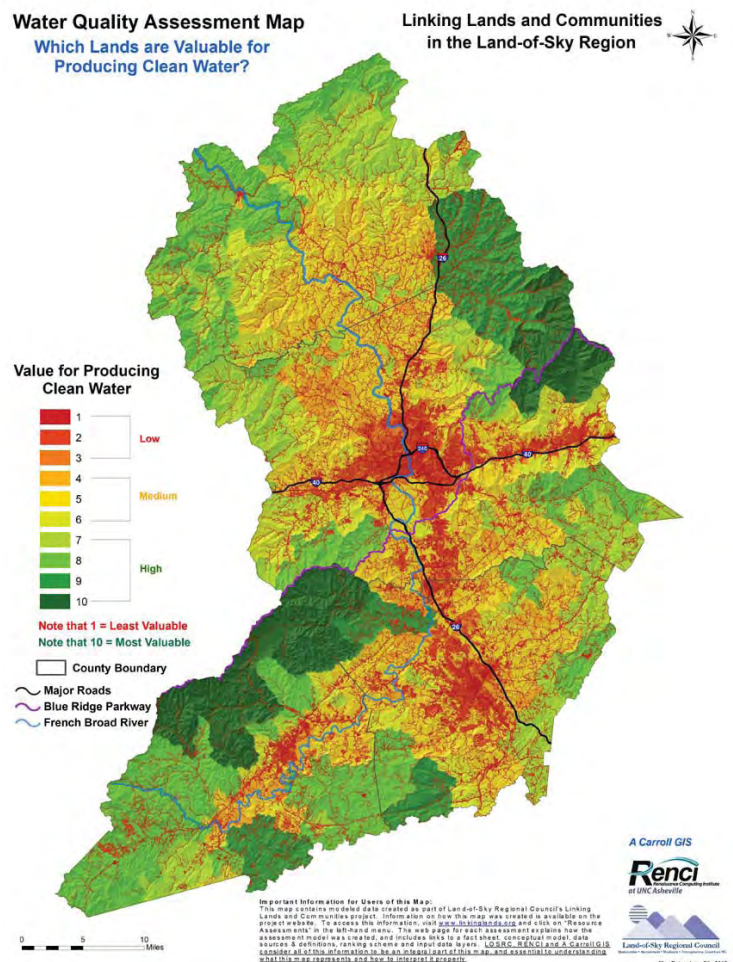
Regional water quality assessment map prepared for the Linking Lands and Communities Project (source: LOSRC).

Green Infrastructure Network (Combined Resource Hubs)
Where are High Value Multiple Resource Hubs (Wildlife Habitat & Biodiversity, Water Quality, Farming & Forestry) and Wildlife Habitat & Biodiversity Corridors?

Linking Lands and Communities in the Land-of-Sky Region

Map Legend
- WHB Corridors
- Hub (1 Resource)
- Hub (2 Resources)
- Hub (3 Resources)
- County Boundary
- Major Roads
- Blue Ridge Parkway
- French Broad River
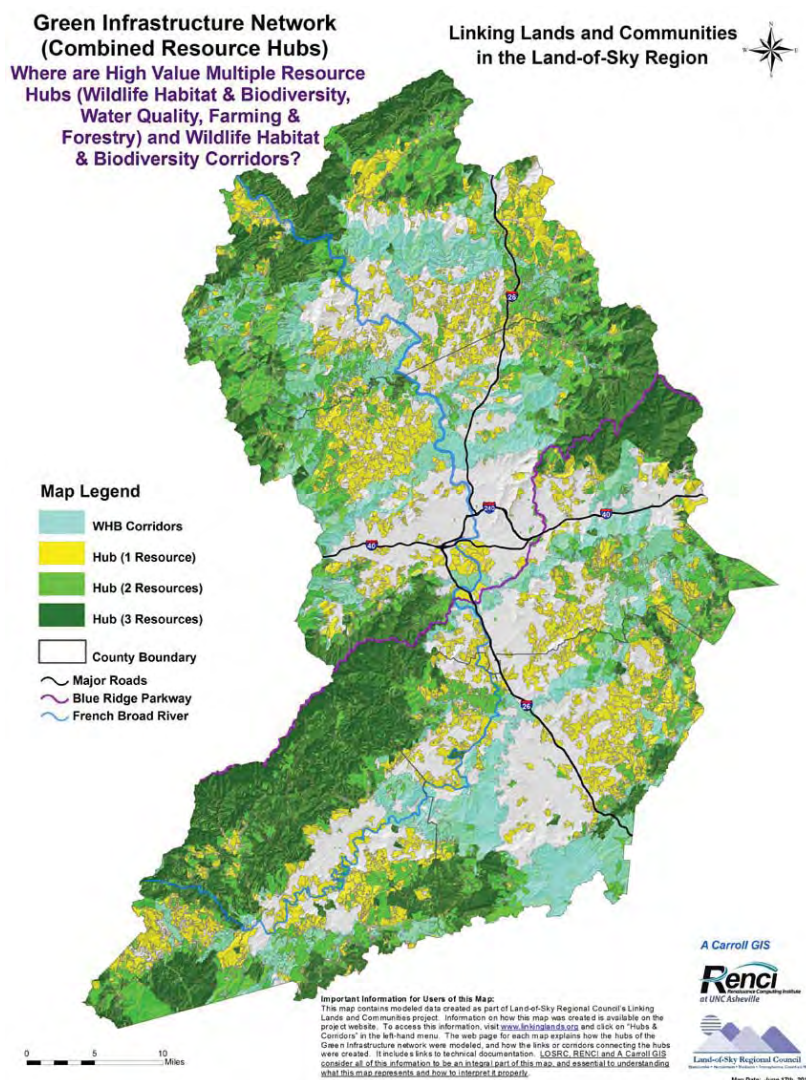
Regional green infrastructure map that resulted from the Linking Lands and Communities Project (source: LOSRC).

3) creating the regional green infrastructure toolbox. By combining the best scientific data available with community values, LOSRC and its partners sought to develop a landscape-level plan to guide development and conservation decisions. The concept was to analyze open space as a system or network, similar to roads and other infrastructure, and to take into account the benefits– economic and otherwise–that natural areas bring to a region.

The resource assessments identified lands valuable for their contribution to regional water quality, agriculture, and wildlife habitat and biodiversity. Working groups representing regional stakeholders and experts were created to conduct the assessments. The assessments were performed using raster-based GIS modeling, using 30-meter pixels, and based on the most current data available. Each pixel was ranked using indicator data, and maps were generated to depict land ranked on these indicators. The findings of these quantitative assessments led to the development of the regional green

infrastructure network map, based on a series of hubs and corridors that contained the highest-value lands in terms of ecosystem services.

Since LOSRC provides multiple services to the region, and strives to integrate regional planning and development processes into a streamlined approach, the high-quality data collection and analysis that developed from the Linking Lands project is now being used to support other program areas. The resulting regional green infrastructure map is being used by local governments in their land use planning processes, and by land trusts to prioritize conservation decisions. Additionally, LOSRC overlaid the proposed transportation projects listed in the French River MPO's Long-Range Transportation Plan onto the green infrastructure map to identify potential conflicts. Finally, the results of the data analysis are now feeding into the organization's work to develop a regional sustainable development plan with funding from the federal Partnership for Sustainable Communities.

Part 2:
Public Engagement

Sustainable development strategies require extensive public involvement efforts based on a community-driven process that captures the input of diverse groups. RDOs are well-equipped to conduct inclusive public engagement processes that incorporate diverse stakeholders, engage various types of groups and interests, and rely on sweeping public outreach to direct regional strategic planning and decision-making.

Public Outreach in the Sacramento Region

SACOG CEO Mike McKeever points out that the key achievement of SACOG's Blueprint process isn't necessarily the refocusing of the regional agenda toward smart growth development, or the gathering and analysis of huge datasets. Rather, the biggest success of the Blueprint was the level of regional collaboration achieved. By including multiple stakeholder groups in the process from the beginning and developing relationships with numerous non-traditional partners, SACOG was able to develop a plan that truly was owned by the public. Furthermore, the success of the Blueprint process built up SACOG's network of partners that trusted the organization, and therefore set the stage for the RUCS to also be a positive, inclusive process.

The Blueprint project team conducted an extensive public outreach effort, centered on a series of interactive workshops. In more than 30 workshops held at the neighborhood level in all parts of the region, residents used innovative software and local and regional maps to demonstrate their preferences for planning and land use decisions. Using I-PLACE^{3}S, users were able to input planning- and growth-related decisions and observe how they impact the region over time. In the public workshops, residents were able to make hypothetical choices and use the tool to see in real-time how those choices caused ripple effects that impacted other aspects of life in the Sacramento region, thus demonstrating the interdependencies among land use, transportation, housing, jobs, natural resources, and other regional systems.

These workshops helped to form a series of regional development scenarios which depicted how different planning and development decisions would shape the region by 2050. The base case scenario projected how the region would grow if current development

Participants in the Blueprint public engagement process (source: SACOG).

Participants on the NADO peer exchange in the SACOG region hear about regional agriculture issues from Topper van Loben Sels, a farmer and water supply expert.

patterns continued as usual. Based on current trends, the Blueprint base case showed that an additional 661 square miles of vacant land would need to be developed to accommodate new residential and commercial uses. Automobile travel would rise and the average household would spend more time fighting traffic. Development would press further outward in rural areas. Other scenarios estimated the impacts of different types of land use, housing, and transportation choices. These scenarios were further refined through additional public workshops and forums into four distinct options for regional growth through 2050, which were further studied and then tested in a public forum.

At these workshops, participants helped shape what would become the Blueprint Growth Principles, the overarching guidelines for how growth management and planning decisions would be made. These Principles encapsulate what is important to the region, reflected in the conceptual map ultimately adopted as the Preferred Blueprint Scenario. All told, more than 5,000 residents participated in the public engagement process. A pillar of the Blueprint process was to incorporate all perspectives into the plan development; the workshops were characterized by high turnout and included many unexpected stakeholders who previously had not been engaged in regional planning processes.

To build citizen support and develop a plan that truly responded to the public's needs, SACOG used noted pollster Wirthlin Worldwide to conduct public opinion polls on growth issues. The results showed strong public support for better linkages between land use and

transportation planning, more housing and mobility choices, and other hallmarks of smart growth and livable communities. Supported by these data, SACOG demonstrated to area stakeholders, elected and appointed officials, and the public at large that citizens felt that a better integrated planning process that promotes smart growth, compact development, and natural resource protection would advance, rather than degrade, their quality of life.

This approach to regional engagement was also employed for the RUCS project. One of the first components of SACOG's RUCS project was to conduct tours of the rural parts of the region for the SACOG board, which was a revelatory experience for the urban board members. The board was able to see first-hand some of the challenges facing their rural members, as well as to witness the many resources and amenities available in the rural and agricultural communities of the Sacramento region. On these tours, board members met with local elected officials, small business owners, farmers and ranchers, agricultural experts, and other citizens about the agricultural economy, land use and development issues, infrastructure challenges, small town revitalization, and other topics affecting rural communities.

Later, SACOG conducted a series of public workshops to gather public input on the issues facing rural areas. The workshops focused more on qualitative data collection; at these events, participants identified the key issues to be further studied, and how the quantitative data and information generated by the model begins to address those topics. SACOG learned that it is not feasible to conduct public participation workshops centered on agriculture planning in the same way as the Blueprint workshops, because participants first need to have a knowledge base of farming systems. SACOG focused on developing tools that would help the public better understand the forces that affect agriculture practices. Additionally, SACOG staff noted that the RUCS engagement process was particularly challenging because of the extent of non-traditional stakeholder involvement. SACOG staff spent a significant amount of time and energy to develop relationships and gather information from growers, agriculture commissioners, farm bureau representatives, and others in the rural agriculture economy.

"We do not have public meetings;

we conduct our business in public."

Tips for Building Broad Public Participation

Rebecca Sloan, SACOG's Director of External Affairs & Member Services, outlined the four guiding principles that underpinned SACOG's efforts to build a cross-section of community and public support for the organization's regional planning processes:

1. **Listen.** Listen to stakeholders. Sloan stated, "Including all stakeholders from the beginning of the process helps you get to success in the end." RDOs must determine the missing groups or gaps in participation, and strategize how to reach out to them. Identify common values and needs and build on those. Sloan also recommends exploring opportunities to provide mini-grants to local nonprofit organizations or other groups to develop resources to support their networks' participation in the planning process.

2. **Seek innovations.** RDOs should identify opportunities and challenges across stakeholder groups and develop common themes. Rather than focus only on areas with existing capacity, RDOs should find the gaps. Document everything that you and your stakeholder network find, and develop a phased prioritization schedule of opportunities to be addressed. Don't leave anything out, because you will alienate your stakeholders.

3. **Drive with data.** Inform all of the decision-making—including revisions to land use plans, codes, and investments—with strong data. Quantify all areas of the planning and outreach processes so that elected officials can point to tangible evidence. This includes documenting and quantifying all public input received at workshops and public meetings and through polls or other public outreach methods; know that this will be time-consuming, but rewarding.

4. **Pace the process.** Know that the solutions will not be one-size-fits-all, easy, or quick. Sloan stated, "We do not have public meetings; we conduct our business in public." The value of having a long view of the process is knowing that when you do reach consensus, that will hold for a long time and can be translated into every area of your work. The implementation of the Blueprint plan continues to provide opportunities for more and more integration across all policy areas at SACOG.

Mountain Landscapes Initiative

The Mountain Landscapes Initiative (MLI) is a partnership between The Community Foundation of Western North Carolina (a nonprofit philanthropic foundation) and the Southwestern Commission. The Southwestern Commission serves Region A of North Carolina, which consists of the state's seven western-most counties. The Southwestern Commission serves as the EDA-designated EDD for the region and is an ARC-designated LDD. The Southwestern Commission also provides transportation planning as the RPO for the region, in addition to community and economic development services.

MLI was created to address planning and economic development challenges in western North Carolina, a mountainous region that was struggling to manage rapid population growth and conflicts over land use and public policy. More than 70 percent of the land area in Region A is publicly owned, meaning local government revenue generation is a challenge and private property prices are high. There are two national parks, two national forests, four lakes owned by the Tennessee Valley Authority, and lands held by the Eastern Band of Cherokee Indians.[5] Zoning and comprehensive planning are not mandatory in the state of North Carolina, and the rural communities of Region A historically have not embraced strong land use controls. However, faced with heightened development pressures, a rise in second-home ownership, and increased mountaintop development, local officials and other stakeholders in the region began to seek resources to help manage growth.

The MLI kicked off in 2007 with the goal of developing guidelines for sustainable development that would support and expand local economies while protecting natural resources, community character, and sense of place. Over a six-month period, the initiative's project team heard the input of more than 1,000 people in the seven-county area, through workshops, community meetings, and individual interviews. The process began with a one-day growth management workshop, held in 2007, at which approximately 50 local officials and other stakeholders gathered to discuss these concerns. The Southwestern Commission facilitated the workshop, in partnership with the Community Foundation and others. At this event, participants ranked their biggest concerns and agreed that a regional approach to development issues was needed. Three primary issues emerged: how to engage the public, how to assist with decision-making, and how to develop best practices.

Southwestern Commission staff embarked on a public relations campaign, attending county commission meetings to explain the project and ask for support. Later that year, the interview stage took place, in which over 75 residents were interviewed, individually and in groups, about their perspectives on the region and its future. These interviews were distilled into a documentary film, *Seeking Balance in the Mountains*, which was screened at 10 community meetings the following spring. At these meetings, the documentary (available online here: *http://www.mountainlandscapesnc. org/info/pop_overview01.html*) served as a jumping-off point for group discussion about the concerns raised in the film, and participants reviewed current and proposed land use maps.

The public outreach effort culminated in a week-long public charrette in the spring of 2008 that included presentations, topical discussions, and an open design studio. More than 500 citizens and experts attended, and hundreds more participated remotely though the project website. During the week of the charrette, the website was updated frequently with photos, reports, and video summaries of the design and discussion; many submitted comments to the website, and the site received nearly 2,000 hits in just nine days.

The goals of the charrette were to gain public input into the top themes identified through the interviews and community meetings, and to develop representative projects that demonstrated how growth management tools might be applied to specific places in the region. Two model projects were designed and deliberated at "satellite" charrettes taking place simultaneously on-location in the region. A final presentation at the end of the event presented the week's work and an outline of what would become the Region A Toolbox.

Vicki Greene, Assistant Director of the Southwestern Commission, notes that the only way to promote sound land use planning in communities that might be suspicious of the process is to engage them in the process: "Getting farmers and people not typically engaged in the planning process to talk about the importance of their land was so critical to making this work." Additionally, Greene says that designating regional leaders to guide the process also bolstered public engagement, stating that "you've got to select people who will be champions" and are willing to devote their time and energy to the process. The Southwestern Commission contracted with a communications consultant to prepare printed materials and worked with planning consulting firms to support the public outreach effort, but ultimately, nurturing

Residents of western North Carolina participated in a weeklong charrette as part of the Mountain Landscapes Initiative (source: Southwestern Commission).

relationships with local residents and business owners spread the word throughout the region.

This bottom-up approach resulted in the creation of the Region A Tool Box, a comprehensive guide to best practices for promoting sustainable economic development and protecting regional landscapes and quality of life. The Tool Box integrates transportation, land use, and economic development planning by guiding local municipalities to address all aspects of sustainable development, from site planning, water resource planning, and farmland preservation to bicycle facilities, affordable housing, and eco-tourism. A number of counties and municipalities in the Southwestern Commission's region previously had no comprehensive plan or zoning regulations; now, communities are developing land use plans and land development regulations to guide sustainable development, with the Region A Tool Box, developed by the region, for the region, as their guide. The Region A Tool Box is described in more detail in Part 6 of this report.
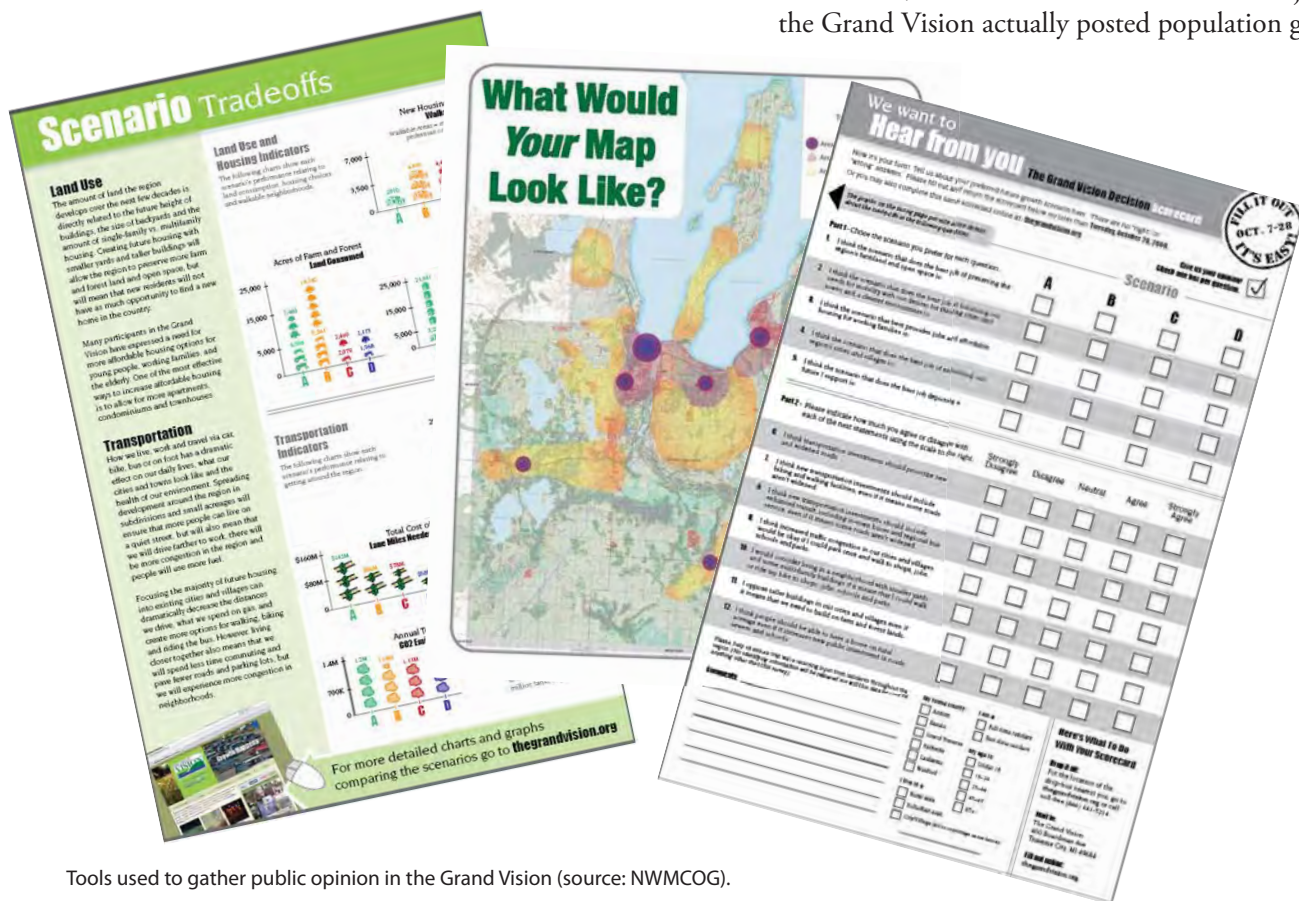
"Getting farmers and people not typically engaged in the planning process to talk about the importance of their land was so critical to making this work."

Northwest Michigan's Grand Vision

The Northwest Michigan Council of Governments (NWMCOG) provides a range of economic and workforce development programs, serving as the EDA-designated EDD for 10 counties in the northwest part of the lower peninsula of Michigan. NWMCOG also provides transportation, land use, and community planning support to the region. The region is home to a celebrated lakefront community, Traverse City, the principal city and employment hub in northwest Michigan, and has hundreds of thousands of acres of protected forests with campgrounds and wildlife areas, all of which attract tens of thousands of vacationers annually.[7]

In 2005, NWMCOG and public and private sector partners in the region initiated a regional visioning process to strategize long-term coordination of transportation and land use planning, environmental stewardship, and economic development in the six-county region centered on Traverse City. Finalized in 2009, *The Grand Vision* provides a framework of best practices, created through an intensive public outreach process and driven by a network of diverse regional leaders.

While the state experienced a small population loss from 2000-2010, the six counties that were the subject of the Grand Vision actually posted population gains over

Tools used to gather public opinion in the Grand Vision (source: NWMCOG).

The Grand Vision workshops captured the participation of 3,000 people of all ages (source: The Grand Vision/NWMCOG).

the past decade.[7] The region's population is projected to double within 40 years, making it one of the two fastest-growing regions in the state (western Michigan is also growing in population).[8] The project motivation originated from a controversial proposed bridge and bypass project around downtown Traverse City. After several years of debate, the project was put on hold and the federal funding designated for the bypass was re-apportioned by Congress to be directed to developing a long-term citizen-led transportation and land use plan.[9] A citizen commission tasked with transportation and land use coordination and planning and staffed by NWMCOG, the Traverse City Transportation and Land Use Study (TC-TALUS), was tasked with conducting the regional planning process. The initial study area was the Greater Traverse City laborshed; ultimately, the project scope was expanded to a six-county area.

By 2007, NWMCOG and TC-TALUS, in coordination with its many regional partners, had outlined the public engagement process, secured state transportation dollars and matching funds from local governments, and formed the Grand Vision Public Involvement Committee. Over 2007 and 2008, the partnership hosted a series of public information sessions and 10 community workshops–publicized through an extensive media campaign–at which thousands of citizens shared their ideas for how the region should grow over the next 50 years. Citizens reviewed potential development scenarios for the six-county region, deciding where and how to accommodate new population growth and considering the costs and benefits to the regional economy and quality of life.

These workshops captured the participation of 3,000 people of all ages. Then, in 2008, a public opinion

The Grand Vision gathered opinions from 12,000 citizens on preferred community growth priorities and investment decisions.

survey was conducted to allow residents of the six counties to choose one of four preferred scenarios on how the region should direct its future growth and infrastructure expenditures. A scorecard survey, *The Grand Vision Decision*, gathered opinions from 12,000 citizens on preferred community growth priorities and investment decisions; more than 75 percent of respondents chose options that would preserve open space and concentrate new growth in already developed areas.

In 2009, the Grand Vision planning document (found at: *http://www.thegrandvision.org/grand-vision-documents*), which captured the results of the public outreach process, was presented to the community. The vision described a village and city-centered growth strategy, with six general priority areas: growth and investment, affordable housing, transportation, food and farming, energy, and natural resources. Collaborative public-private networks were formed around each priority area. While citizen opposition to the bridge project catalyzed this study, this citizen-driven plan provides a holistic view for how the region should grow and foster its unique quality of place. Residents and business owners voiced their opinions not only on land use and transportation priorities for the future, but also how better aligning the region's natural resources and talent will encourage sustainable growth. The Grand Vision calls for the region to embrace the "New Economy," which embraces economic development in such a way where human capital drives economic, social, and environmental gains as a means to true regional prosperity.

According to NWMCOG Director for Regional Planning and Community Development Matt McCauley, "The Grand Vision has provided the region an excellent opportunity to have a citizen-driven conversation about what the future of the region should be. The Grand Vision prides itself on the number of people it has and will continue to involve in the planning process to make northwest lower Michigan one of the most economically, socially, and environmentally prosperous regions anywhere."

Part 3:
Transportation and Infrastructure Systems

One of the most effective methods that RDOs have found for gathering public support for developing a long-term regional vision is calculating the financial costs and benefits of coordinating land use and transportation investments with economic development goals, natural resource stewardship objectives, and quality of life strategies. Supported by strong data analysis, cost/benefit analyses have helped RDOs and their partners clarify regional priorities and guide local decision-making. Additionally, RDOs and their partners are identifying ways to integrate the various types of infrastructure that support their regions–transportation, energy, water supply, social and professional networks, and others–to better align resources and promote their regions' competitive advantages.

Utah

Between 2000 and 2010, Utah had the third-highest population growth in the nation, at 23.8 percent, just behind two neighboring western states, Nevada and Arizona.[10] Northwest Utah, just outside the Salt Lake City metropolitan area, experienced high residential and commercial growth rates over this period, including a proliferation of second-home development.

The Bear Lake Valley, located in northern Utah, is served by the Bear River Association of Governments (BRAG), which offers community and economic development support for Box Elder, Cache, and Rich Counties and local municipalities, as well as transportation planning and coordination for eastern Box Elder County. *The Bear Lake Valley Blueprint*, coordinated by Envision Utah, BRAG, the Bear Lake Regional Commission, and other state, regional, and local partners in Utah and Idaho, was recently developed to create a regional vision through

the year 2060 that would guide growth and investment decisions in Rich County, Utah, and Bear Lake County, Idaho. While the area has an agricultural base, tourism also drives its economy. Residents voiced concerns about increasing second-home development and effects it may have on the region's natural resources and treasured recreation opportunities. Throughout 2010, the project leaders brought together stakeholders and citizens to come to consensus on where various types of residential and commercial development could occur in a way that would reduce infrastructure costs to jurisdictions, save water, preserve sensitive lands, encourage economic development, and improve the quality of life for residents.

Working with Envision Utah, the project team established four potential growth scenarios and demonstrated the costs of different types of development in a series of public workshops and town hall meetings throughout 2010 and 2011. The workshops emphasized

Bear Lake Valley Blueprint Scenario Projections and Citizen Preferences

Scenario	Projected Land Development (acres)	Additional Water Demand (acre feet)	New Local Road Construction Costs (millions)	New Local Infrastructure Costs (millions)	Percentage of Citizens Who Prefer Each Scenario
A: Baseline	41,470	20,130	$152.1	$308.0	5%
B: Estate Lots	26,864	15,163	$136.4	$267.4	16%
C: Farm Towns and Recreation Villages	3,573	7,017	$125.0	$238.3	37%
D: Resort Towns and Main Street, USA	3,478	7,594	$115.9	$224.6	42%

Source: Presentation by Mitch Poulsen, Bear Lake Regional Commission, August 25, 2011. *http://www.nado.org/wp-content/uploads/2011/08/Regional-Sustainable-Dev-POULSEN.pdf*

taxpayer expenditures on infrastructure and the costs of building and maintaining roads, paying for fuel, and wasting time in traffic. To demonstrate the benefits of altering land use patterns to reduce infrastructure costs, the Bear Lake Valley Blueprint process estimated road construction, operations and maintenance costs, and water and sewer costs for each potential growth scenario.

Faced with these costs and benefits, citizens chose the scenario that was projected to result in the greatest cost savings. Relative to the baseline scenario, the regional vision articulated by the Bear Lake Valley Blueprint projects the following impacts:

- Approximately 37,000 fewer acres developed

- An increase in walkable neighborhoods, with about 59 percent of new growth taking place in mixed-use communities

- Reduced water demand (by about 12,000 acre feet of water)

- Reduced road construction costs equaling about $18 million

- An $83 million reduction in local infrastructure costs[11]

Citizens discuss future growth scenarios as part of the Bear Lake Valley Blueprint development (source: Bear Lake Valley Blueprint).

As part of the Bear Lake Valley Blueprint, the project team prepared maps for the proposed scenarios, with information about what each scenario would mean for the region in terms of housing, employment, infrastructure, and conservation (source: Bear Lake Valley Blueprint).

Zac Covington, Regional Planner with BRAG, notes that, "The Bear Lake Valley Blueprint is the first of many critical steps toward creating sustainable growth and more livable communities in the Bear Lake Region. As local jurisdictions continue to forge ahead with a common vision, communities can become increasingly walkable, transportation corridors more efficient, housing choices increased, economic growth stimulated, recreational amenities improved, and sensitive environmental assets protected. Through continued public and local official support and innovative planning, this vision can begin to come to fruition." Currently, the region's leaders are working with local governments in the Bear Lake Valley to strategize implementation techniques to ensure that these expectations are realized.

Sacramento Area Council of Governments

In the Sacramento region, developing strategies that would create economic efficiencies drove the Blueprint planning process with SACOG's board. Quantifiable transportation investments and their impacts coupled with well-documented public support provided local elected officials with a concrete basis for decision-making. Ultimately, the region's mutual buy-in to the process was based on cost-effective investments in the regional transportation and infrastructure network.

Through the RUCS process, SACOG is developing a fiscal impacts assessment model to help local governments understand the short- and long-term impacts of planning decisions and infrastructure investments. This tool is designed to help smaller communities to calculate and understand the financial tradeoffs of land development. In rural communities, growth of any kind can appear to be economically advantageous; however, small towns seeking private-sector investment often do not calculate the long-term infrastructure costs of converting open space or working landscapes to residential or commercial development.

SACOG's fiscal impacts assessment model seeks to address the imbalance between service costs and revenue by estimating the infrastructure and service needs, and financial implications from possible land use scenarios, and identifies the gaps and additional revenue needed. Users can input land use information (acres and type of development) along with development parameters (such as proposed street pattern or the amount of acres that are infill development), and system specifications (such as water demand) to generate a cost-benefit analysis of land use plans for local governments. The payback analysis created through this model estimates projected debt scenarios, payback period, municipal finance shortfall estimates, and resulting bond debt that may be needed.

Additionally, SACOG is also investigating rural transportation network issues impacting the agricultural sector and rural communities. During a recent NADO peer exchange in the Sacramento region, the group visited Yolo County, where roads that were designed and built for agricultural uses are now seeing increased traffic from urban residents, including commuter traffic between the cities of Davis, Woodland, West Sacramento, and Sacramento. Yolo County has the highest truck traffic intensity in the region as a result of agriculture processing and the gravel production industry, and conflicts between slow-moving trucks, passenger vehicles, and bicyclists are on the rise. Like the rest of rural America, a disproportionate number of accidents occur on rural

SACOG's fiscal impacts assessment model allows users to analyze costs and benefits of proposed land use changes (source: presentation by SACOG, July 2011, available here: *http://www.nado.org/rural-urban-connections-in-the-sacramento-region/*).

Petrea Marchand of Yolo County describes the transportation challenges facing rural communities outside Sacramento.

roadways in the Sacramento region. Though only 13% of the region's population live in rural areas, 40% of fatal automobile accidents in the region occur in these areas.

Because of limited funding available, the county has struggled to maintain a road network that can support both commercial and residential needs. Almost 99 percent of Yolo County's unincorporated land, over 600,000 acres, is designated for agricultural uses, the majority of which is protected under the state's farmland protection laws which restricts property tax assessments on agricultural lands and open space. The Williamson Act is a boon for land preservation but poses challenges to county administrators, who must finance core services with the lowest share of property tax in the state. Yolo County has found that creativity in addressing budget shortfalls has been instrumental in meeting rural residents' and businesses' transportation needs; for instance, a road reconstruction program that uses recycled materials, known as cold foam in-place recycling, has been very successful. Additionally, the county secured American Recovery and Reinvestment Act (ARRA) funding through SACOG for road improvements to facilitate farm-to-market transportation, a need identified in the RUCS initiative.

Energy Infrastructure

LOSRC recently launched a new program, dubbed *Building the Clean Energy Economy in Western North Carolina* (currently being rebranded as the *EvolveEnergy Partnership*), to boost the region's emerging clean energy industry cluster. The initiative addresses energy efficiency, renewable energy, and alternative fuels and vehicle development in a 31-county region. With funding from EDA, ARC, and the North Carolina Rural Center (a nonprofit program), and in partnership with five other RDOs in western North Carolina, LOSRC is seeking to grow an understanding of this sector and establish western North Carolina as a clean energy hub.

The goal of the initiative is to create jobs, improve energy security, ensure economic competitiveness, and promote regional sustainability by harnessing the region's existing resources through clean energy innovation. The region imports $3.2 billion in energy supply annually, and leaders realized that redirecting these dollars to clean energy sources within the region would be an excellent opportunity to retain wealth within the region, ensure a more secure energy supply delivery system, and promote more sustainable energy sources.

LOSRC and its many partners in this initiative realized that the region's competitive advantages include a rapidly growing clean energy business sector and strong educational, workforce development, entrepreneurial, recruitment, and social infrastructure, as well as a wealth of natural resources suitable for renewable energy

LOSRC is developing partnerships to tap into the region's potential to become a clean energy hub.

development. To leverage these resources, the project is coordinating the various players in the emerging sector around a unified vision and a cohesive leadership model, supported by in-depth data analysis to better understand the existing energy supply chains and the opportunities and challenges to develop a clean energy hub. Patrick Harper, Regional Planner at LOSRC, states that the region "had an emerging and optimistic but incomplete picture of clean energy economy in the region."

The program consists of five core components:

- A 35-member leadership coalition to provide overall project guidance, incorporating representatives of the public and private sectors

- A web-based professional networking platform (*www.cleanenergywnc.org* and *www. advantagegreennetwork.org*)

- Supply chain gap and cluster analysis that will guide decision-making

- Marketing, branding and business outreach campaign, based on the findings of the cluster analysis, which has led to the EvolveEnergy Partnership brand

- Support for local governments in building capacity in clean energy development and conducting of energy audits to help achieve cost savings

Energy infrastructure represents an opportunity for rural and urban communities to better collaborate on issues of regional concern.

SACOG is investigating forest management and protection of working lands as a strategy to support clean energy production; forested lands also provide other ecosystem services and recreation opportunities to the region (source: SACOG).

Joe McKinney, LOSRC's executive director, notes the impact that this type of initiative has in fitting into the larger puzzle of regional and national sustainability. Interweaving energy infrastructure issues into regional economic resilience, smarter transportation networks, and environmental stewardship programs creates a broader picture of what regional sustainability means. Additionally, energy infrastructure development represents an opportunity for rural and urban communities to better collaborate on issues of regional concern. McKinney states that LOSRC is considering these issues in terms of the megaregion concept and "the potential for smaller rural areas to feed into megaregions so we are not lost in the conversation."

SACOG is also exploring clean energy production potential on working lands. The open space, natural features, and by-products of farm and forest lands can serve multiple purposes beyond their food production and environmental resources. Biomass can be used as an alternative fuel source, and solar panels and windmills can be installed on open lands and ridges. Forested land and open space on farmland and in natural areas serve as carbon sinks. Forest management and agricultural practices that maximize the potential for these types of land cover to reduce the amount of carbon sent into the atmosphere hold not only environmental protection potential but economic opportunities for landowners. Two pieces of state legislation—one passed in April 2011 requiring California utility companies to source one-third of their electricity from renewable sources by 2020,

The Cal-Denier Dairy operates an onsite methane generator that is a source of clean energy, reduces the amount of methane sent into the atmosphere, and is an additional income generator for the dairy.

and AB 32, legislation to reduce greenhouse gases that has opened the carbon-trading market–both present opportunities for rural landowners in the Sacramento area to develop innovations in the alternative energy industry.

Feedlots and dairy farms are capitalizing on their resources to capture methane and convert it into an energy source. For example, the Cal-Denier Dairy, a 340-acre dairy farm located in Sacramento County, houses 540 mature Holstein cows and 100 heifers, and grows the cow feed onsite. The farm ships approximately 5,300 gallons per day to HP Hood in Sacramento, where it is homogenized, pasteurized, and packaged. In 2008, construction was completed on an onsite methane generator, which generates enough electricity to operate the farm, or the equivalent of 65 households; the electricity is sold back into the grid through an agreement with the Sacramento Municipal Utility District (SMUD), the local utility. SMUD shared some of the cost of constructing the converter, and state and federal grants were also used. The system is not only a source of clean energy to create power, but it also provides farmers with an additional income stream and reduces the amount of methane, a greenhouse gas, that is sent into the atmosphere.[12]

Participants of the NADO peer exchange learn about the methane generator at the Cal-Denier Dairy.

Part 4:
Quality Economic Development

Increasingly, RDOs are recognizing that sustainable development initiatives mean quality economic development for rural and small metropolitan regions. By linking strategies that promote local and regional assets with land use planning, natural resource protection, and transportation programs, RDOs are developing approaches to rural economic development that emphasize entrepreneurial development, attraction of knowledge workers, relationship building, and rural wealth creation.

Growing Small Businesses in the Land-of-Sky Region

In 2009, LOSRC was awarded ARRA funding via the U.S. Department of Agriculture (USDA) Forest Service to support the development of a more competitive forest-based industry in western North Carolina. The goal of the program, branded the *WNC Forest Products Cooperative Marketing Project*, was to provide not only short-term stimulus to the local economy, through the employment of unemployed and under-employed local forest producers, but also to build capacity and better develop market access to enhance the forest product industry in the long-term.

Using research that documented threats to the forest-based industry (namely, encroaching residential development fragmenting important forest lands), LOSRC conducted outreach to the forest-based industry stakeholders in the region, which unearthed the industry's capacity gaps and revealed the specific challenges facing small businesses and family enterprises. Forest-based businesses indicated that marketing assistance, cooperative approaches, and collaboration opportunities would better allow these businesses to connect with local and regional markets and take advantage of more streamlined business processes.

This project, the only one of its kind in the nation, aimed to create and retain jobs and improve marketing and production methods. It placed an emphasis on diversification and business expansion, to ensure businesses' long-term viability and build the region's capacity for more jobs past the life of the ARRA grant. One of the hallmarks of the WNC Forest Products Cooperative Marketing Project is that it is a bottom-up planning and economic development project, guided by forest producers and forest product consumers. To ensure the long-term viability of the venture, beyond the life of the stimulus money, LOSRC aimed to directly employ forest producers in the work program, to allow

Brian Boggs of the Boggs Collective, one of the projects supported by the WNC Forest Products Cooperative Marketing Project.

Guiding Principles of the WNC Forest Products Cooperative Marketing Project

- Provide short-term jobs to the forest industry in a way that generates lasting benefits to the industry.

- Use a "bottom-up" planning and economic development approach guided by forest producers and by forest product consumers.

- Look first to forest producers as staff to carry out this project.

- Use organizations within Western North Carolina to manage this project both to capitalize on their knowledge of local forest and market issues and also to strengthen long-term relationships between forest producers and their support organizations.

- Build the capacity of forest producers to sustainably pursue a variety of forest enterprises in a way that brings benefit to rural communities.

them to build relationships and to ensure that it was an entrepreneur-driven process. Grants were structured so that the bulk of funding went to salaries, rather than capital costs.

The grant awarded to LOSRC totaled $1.974 million. LOSRC released a request for proposals from businesses in 18 counties in western North Carolina in February 2010. Through a competitive review process, LOSRC awarded a total of $1.5 million to 15 forest-based businesses, in grant awards ranging from $62,000 to $120,000. Projects selected had to be tied to forest resources. One aim of the project is to nurture niche markets and facilitate local entrepreneurs' connections to purchasers of unique products, such as handcrafts or sustainably produced furniture that emphasizes traditional Appalachian designs.

An additional four co-operating organizations received $340,000 to provide technical assistance, workshops, and marketing and branding services.[13] Applicants have worked with LOSRC staff to improve their internal business practices to be consistent with ARRA requirements, and each grantee has a contract that must be fulfilled. LOSRC, project partners, and other technical experts provided specialized assistance to the recipient businesses in the fields of best business practices, legal and accounting services, branding, retail

Lang Hornthal, owner of Appalachian Designs, another business supported by the WNC Forest Products Cooperative Marketing Project (source: Turner HD Media).

packaging, green label certification, customer searches, web-based marketing, and many other topics. Other small businesses were used for specific services to improve collaboration and create opportunities for additional future networking. The market research, customer calls, and equipment improvement research was done by the producers themselves, so that the intellectual capital resulting from this project will remain with the forest producers after the project is complete. The program also funds a workshop series for forest landowners, and small business assistance workshops for grant recipients.

To date, the project has led to more than 160 jobs (full-time, part-time, or seasonal), at an investment of
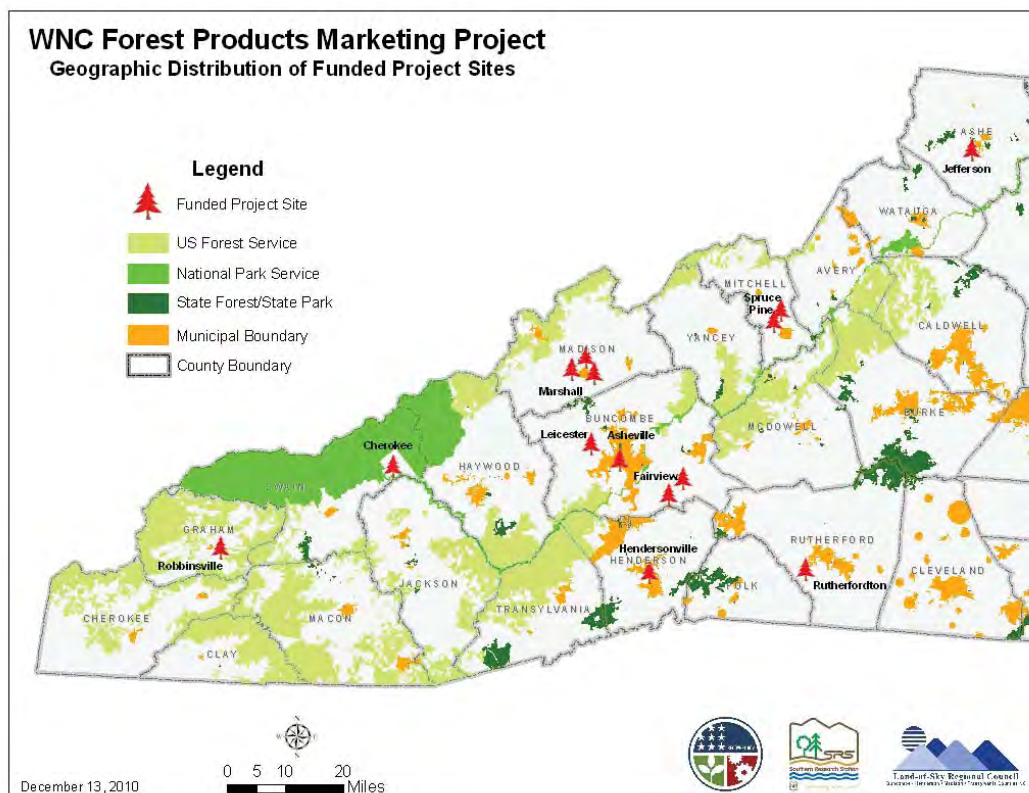
Locations of projects funded by the WNC Forest Products Cooperative Marketing Project (source: LOSRC).

about $11,900 per job. The project contributed to more than 5,800 jobs regionally and has led to an estimated community financial impact of $4.8 million. Since the closure of the grant awards in July 2011, the job retention rate remains over 90 percent.[14] The types of jobs cover a broad range of skills, including loggers, foresters, horse loggers, small sawmill operators, handcrafters and artisans, furniture manufacturers, wildcrafters, forest foods harvesters/growers, and firewood and wood shavings processors.

Representative projects funded through this program include:

- **Appalachian Designs,** which creates custom-built rustic furniture, used $74,900 to develop a dry kiln, concentration yard, and certification program for small diameter wood products.

- **The Boggs Collective,** a collaborative venture that enables landowners, loggers, sawyers, and craftspeople to join their skills and resources under a shared commitment to high-quality sustainable wood furniture design, received $108,000 to create a cooperative workshop, woodshed, woodworking school, and virtual gallery to support craftspeople and forest producers.

- **Hickory Nut Gap Farm and Big Sandy Mush Nursery** received $99,519 to form a partnership to improve sustainable community forestry through local lumber, small scale sawmills, woodland and medicinal plants, eco-tourism, eco-education, land conservation, and the use of local building materials.[15]

The WNC Forest Products Cooperative Marketing Project has led to an estimated community financial impact of $4.8 million since 2010.

Supporting Agriculture Development in California

Approximately 40 percent of the six-county region served by SACOG is characterized as agricultural uses, and another 30 percent is forested lands or other open space.[16] Farms in the Sacramento region, the vast majority of which are family-owned and diversified, serve not only California, but the rest of the country and the world. The farm gate value of the agriculture industry is $1.6 billion annually; that represents strictly the value of the output. Agriculture creates additional jobs and income off the farm at a multiplier effect of two, meaning that the total value of agriculture to the Sacramento region is $3.2 billion annually.

Around Sacramento, the value of crops has been going up. Perennial and annual crops provide highest value; cattle is also a significant component of the agriculture sector. Even in a down economy, the region has seen its agricultural output increase by more than 18 percent from 2005 to 2009.[17] However, fewer acres are being farmed. Threats to farmland include international competition, new pests and climate conditions, the aging population of farmers, and encroaching urban development.

Through the Blueprint and RUCS processes, the region learned that agricultural product is one of the most tangible things produced in the region. Home to the state capital, the Sacramento region is overshadowed by larger California cities like Los Angeles, San Diego, and San Francisco, and is slowly developing a regional brand identity based on agriculture and a focus on sustainable food sources. One of the guiding motivators behind the RUCS process is that by supporting agriculture and helping it to become more viable, more fallow land will return to production (rather than become developed). The Blueprint preferred growth scenario for 2050 projects a reduction of developed land by 350 square miles from the base case scenario; much of that acreage is current farmland. As the Blueprint plan is implemented, this agricultural land must be protected from development, which means agriculture, as the base industry for the region, must likewise be protected.

The RUCS process is aimed at developing mechanisms to support both the export agriculture industry, a bulwark of the regional economy, as well as creating ways to better support the regional food systems flows. The RUCS project has found that farms and ranches produce 3.4 million tons of food in the region each year, and the region consumes 2.2 million tons of food per year, but only 2 percent of what is grown in the region is consumed in the region.

While the agriculture industry in the Sacramento region is primarily large-scale production agriculture, there is a growing demand for and supply of locally grown food. Stakeholders engaged in the RUCS project developed the following ways to increase local market share:

- Increase production for local markets by connecting farmers to available farmland and providing training and resources for growers.

- Improve the infrastructure, processing, and distribution networks to better facilitate intraregional flows of local food.

- Develop relationships with institutional buyers and increase consumer awareness of and access to local sources of food.

- Direct sales, consumer marketing, and agritourism provide diverse income streams for farmers, can provide a market for niche crops, and promote human connections between farmers and consumers.

In Yolo County, the gross value of agriculture production in 2009 was $462 million, according to John Young, Yolo County Agriculture Commissioner. The region's wine production rivals the quality of the Napa Valley, but lacks the name recognition and regional branding.

Organic production is one of the largest components of the agriculture industry in Yolo County. Challenges to Yolo County farmers include regulations, permit costs, and compliance time frames. Most regulations tend to be geared toward larger operations, and the layers of regulation—particularly the paperwork involved—pose a burden to small businesses. As climate patterns shift, the region is becoming more suitable for exotic and invasive species, which creates many more headaches, not to mention costs, for growers.

Young has identified ways that regional and local planners can support the agriculture industry. In California, every county is required to prepare a general plan (the equivalent of a comprehensive plan in other states), but an agriculture element is not a required part of the plan. Yolo County has always had an agriculture element in the plan, combined with the economic development section. In an interview conducted as part of the RUCS process, Richard Rominger, the former Deputy Secretary of USDA and a Yolo County farmer, states, "I think we certainly have to plan for agriculture. Previously we planned for subdivisions, for schools, for highways, for shopping centers, and agriculture got what was left over. And I think now we realize that we have to plan where we want our agriculture because agriculture does make a tremendous contribution, not only in providing food for local markets and for local consumers, but also in open space and wildlife habitat, and it helps with air pollution and water supply. Farms can be a big contributor to the quality of life in an area."

A critical component of a robust agriculture economy is a well-run processing and distribution network. Across the country, small and mid-sized farmers attempting to connect with the regional consumer base struggle with smooth production and transportation flows to get their product to market in a timely, efficient, cost-effective method.

Loss of processing facilities has caused hardship for farmers as well as processors, resulting in increased transportation costs, larger carbon footprints and lessened quality of product. There is no USDA-approved slaughterhouse facility in Yolo County, so ranchers must commute three hours to the nearest location. When the last
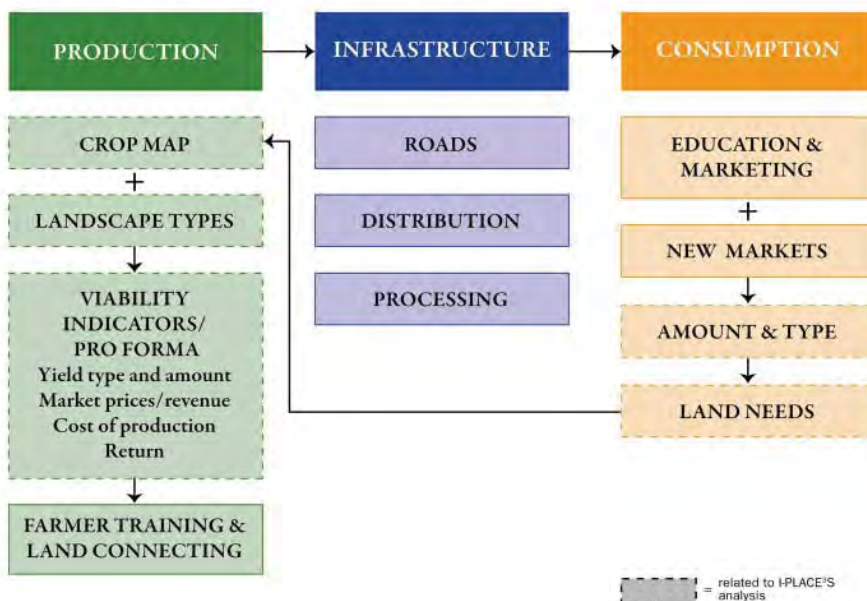
As part of the RUCS project, SACOG staff and regional partners are analyzing ways to better support the regional infrastructure that bolsters intra-regional system flows (source: SACOG).

Growing the Next Generation of Farmers

One of the Sacramento region's biggest concerns about the future of its agriculture sector is nurturing a new generation of farmers. By creating opportunities for hands-on exposure to agriculture and environmental careers among the region's youth, area stakeholders hope to build capacity in the region for agriculture knowledge and skills, especially sustainable farming practices and land management techniques. Additionally, programs aimed at connecting young people to the land are designed to cultivate a greater appreciation for preserving farms and open space.

The Center for Land-Based Learning (CLBL), founded in 2001, is based on an organic walnut orchard in Winters, California. It is a nonprofit organization that teaches young people about sustainable farming practices and nature restoration projects, and houses a farming incubator, similar to a business incubator, which provides resources and support to young farmers. CLBL runs programs to teach students throughout California about the agriculture industry and the interconnected relationships between agriculture, food systems, and land use issues. The CLBL also operates a habitat restoration program that teaches students about land management issues, watershed and water supply protection, and ecosystem restoration.

Mary Kimball, Executive Director of the Center for Land-Based Learning, speaks to the participants of the NADO peer exchange.

one went out of business, the community had not fully grasped its value until it was gone, and now they cannot get a USDA inspector back in the county. Young's message is that if you have facilities currently on the edge, be sure to support and protect them.

The local food movement has never been stronger in the Sacramento area. Young stated that "we are working in the best and the hardest of times." Young identified the heart of the issue as being that there are willing consumers and willing producers: what is the missing link? The industry needs broad-based community support and is working to identify all entry points: farm to school, institution, restaurants, and other consumers on a large-scale. Young identified better marketing and branding of food grown regionally for the regional market as an untapped opportunity.

The Sacramento region is developing a regional brand identity based on agriculture, viticulture, and a focus on sustainable food sources (source: SACOG).

The two main pillars of the RUCS initiative are economic viability and environmental sustainability: the underlying concept is that by protecting and supporting the agricultural economy, the region can ensure protection and preservation of the region's environment. At the beginning of the project, SACOG focused on developing relationships with farmers and others in the agriculture community. David Shabazian, SACOG Senior Planner and RUCS Project Manager, states, "You really have to get in the mind of the farmer: how do they see things and what are the market conditions affecting them?"

"I think we certainly have to plan for agriculture. Previously we planned for subdivisions, for schools, for highways, for shopping centers, and agriculture got what was left over. And I think now we realize that we have to plan where we want our agriculture because agriculture does make a tremendous contribution, not only in providing food for local markets and for local consumers, but also in open space and wildlife habitat, and it helps with air pollution and water supply. Farms can be a big contributor to the quality of life in an area."

- Richard Rominger, former Deputy Secretary of USDA and a farmer in Yolo County

Part 5:
Cultural Landscapes

Since sustainable development is rooted in place-based initiatives, unique to each region and community, RDOs are identifying ways to protect and enhance distinctive regional attributes that help shape a sense of place. Networks of cultural amenities and historic features form the regional identity that attracts and retains residents, businesses, and visitors. Additionally, measures that support a region's unique character ensure the viability of a mixture of types of businesses, tourist-based and otherwise.

## Protecting the Heritage of the Mountains

A defining feature of the Mountain Landscapes Initiative was that it was initiated by longtime residents of western North Carolina with the goal of preserving their beloved working and cultural landscapes. The people who lived and worked on the land for generations feared the economic, environmental, and social degradation that would occur if the region's natural features were taken for granted.

As part of the week-long charrette that the project team conducted to flesh out the region's views on development and design issues, two satellite charrettes were hosted in specific locations of the region to develop and test concept design plans. One of these took place in the Cowee Valley, a rural community in Macon County that boasts a distinctive rural mountain character

and connections to early American settlers and native Americans. Designated as an historic district on the National Register of Historic Places, approximately half of the district's 370 acres are open fields, and the other half is forested. The goal of the design process was to identify strategies that would maintain the historic rural character while finding ways to support new development that would provide needed community services. This case study, featured in the Region A Toolbox that was developed at the culmination of the Mountain Landscapes Initiative, serves as a model for how new development might be integrated into landscapes that are rich in cultural history and land-based amenities.

The methodology developed by the project team for such an undertaking consists of six phases, which cover analyzing historic settlement patterns; creating methods for historic preservation and enhancement; crafting concept plans that address conservation areas, development areas, and transportation networks; and testing potential development concept plans. For instance, the team considered Rickman Store, a general store that has been a fixture of the community since it was built in 1895. The store was acquired by the Land Trust for the Little Tennessee in 2007 and now operates both as a shop and as a community gathering space for cultural events. The charrette identified opportunities to develop a cluster of cottage-like homes or live-work units for local crafters or artisans that would enhance this area as a small cultural node and create synergies with the activities of the preserved Rickman Store.
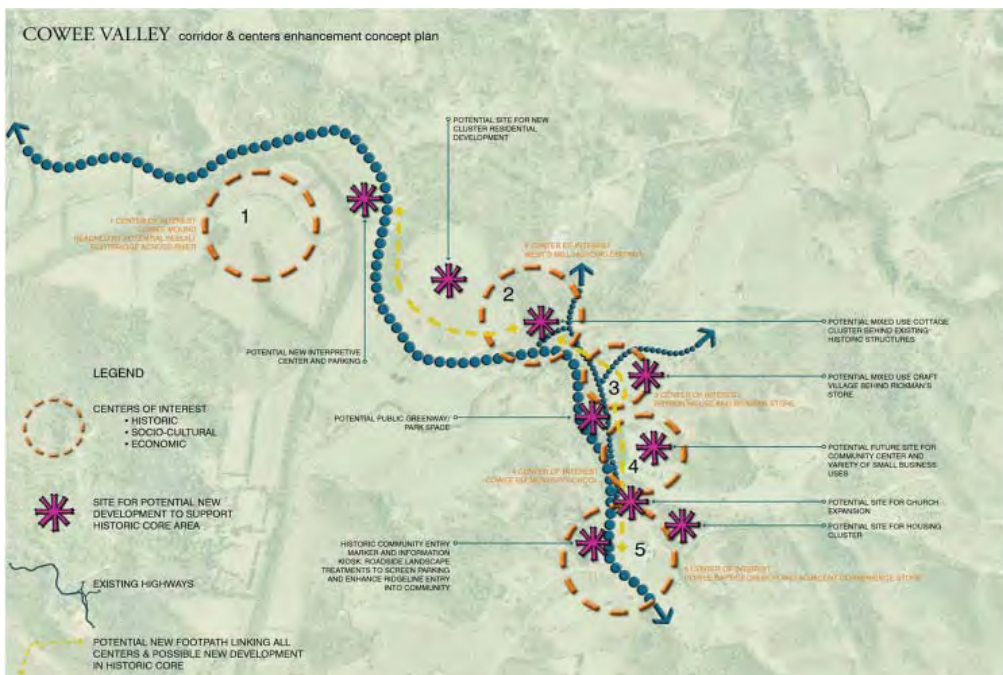
Concept plan for Cowee Valley developed as part of the Region A Toolbox (source: Southwestern Commission, the Community Foundation of Western North Carolina and The Lawrence Group Architects of North Carolina, Inc).

Jamie Ager speaks with participants of the NADO peer exchange about his work at Hickory Nut Gap Farm.

The Cowee Valley charrette also tested concepts for the reuse of the Cowee Elementary School building as a community center and small business incubator that would preserve and enhance the historic structure, an important piece of community memory that was built in 1943 with local stone by the federal Works Progress Administration.

Agricultural Heritage in Western North Carolina

In the Land-of-Sky region, the WNC Forest Products Cooperative Marketing Project supports the region's land-based businesses that are carrying on long-standing regional traditions in agriculture, forestry, woodcrafting, and other related industries. One of the grantees of the project, the Hickory Nut Gap Farm, is a 350-acre family farm that has been in the McClure family for five generations. Amid pressure to carve up and sell the family landholdings for development, the family decided to place a permanent conservation easement on the working lands in 2009, to ensure that the land remains a working farm.

Jamie Ager, part-owner of the farm along with other family members, notes that not only did the family decide to keep the farm, but they also decided to farm the land sustainably. The operation produces pasture-raised, grass-fed meats as well as produce and fruits, and connects to the community through a farm stand onsite, participation at farmers markets, a community-supported agriculture venture, and a corn maze, berry picking, and pumpkin patch on the property. The Agers participate in watershed protection measures and forestry preservation to ensure the viability of the landscape from both an economic and environmental standpoint.

By connecting sustainable agriculture practices, family and cultural history, and the modern markets of western North Carolina, the work of LOSRC in supporting businesses such as Hickory Nut Gap Farm

illustrates the many different levels at which regional sustainability initiatives operate. Stewardship of the land and critical environmental services in coordination with economic development opportunities and cultural history preservation all intersect within the WNC Forest Products Cooperative Marketing Project, and LOSRC's broader efforts to support regional sustainability.

Small Town Revitalization

The lessons learned through the Blueprint and RUCS, developed by SACOG, are being addressed at all levels of government in California. The six-county Sacramento region is home to a number of small towns that historically served as central gathering points for the surrounding agricultural community. The town of Winters, located in Yolo County, has benefited from the efforts of the town's elected officials and civic leaders to restore and maintain the historic downtown community.

The town's downtown master plan was designed to be consistent with the adopted Blueprint Plan's vision for compact, mixed-use development in existing core communities, reflecting the principles of smart growth. To put the master plan into effect, the town adopted a form-based code and urban design guidelines intended to ensure high-quality design and preserve and protect the existing historic and distinctive character of the downtown core.[18] Winters has also leveraged resources to invest in infrastructure improvements, totaling over $50 million over three years, to replace a failing bridge, upgrade sewer and water facilities, develop a new library and public safety building, and put in physical enhancements and streetscaping work to ensure the downtown is pedestrian-friendly.[19] The town's leaders have also coordinated with regional partners to create connections into the regional bike trail system.

Communities such as Winters demonstrate the impact of effective regional coordination and bottom-up planning processes that reinforce a community's unique sense of place. At times, regional planning and economic development strategies risk appearing as abstract or conceptual plans, or become stalled in the plan development process. But RDOs who work closely with a wide range of regional and local stakeholders at all stages of the planning process are more likely to witness the benefits of their efforts first-hand. The following section describes the many ways that local governments are coordinating and implementing sustainable development initiatives that are borne out of the regional planning process.

Part 6:
Local Government Coordination

One of the fundamental jobs of RDOs is to facilitate intergovernmental coordination and support local governments seeking assistance in implementing planning and development projects that support regional goals. Regional sustainable development plans are collaborative projects based on the coordination of multiple public agencies and layers of governance. The RDOs featured here are working with member governments to ensure that regional plans are functional and effective at the local level.

Implementation of The Grand Vision

The Grand Vision, developed in northwest Michigan, is not a legally binding document that maps required land uses or mandates specific investments; rather, it is a guiding document that provides local governments and communities a sustainable planning framework to guide decision-making over the next 50 years. Local governments can decide which plan elements would best foster sustainable development in their jurisdictions and choose to adopt them into their own comprehensive plans and zoning ordinances. The region consists of six counties (Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau, and Wexford Counties) comprising 109 separate local units of government including counties, townships, cities, and villages. Other partners in the plan implementation process include school districts, transit providers, agricultural interests, nonprofit organizations, road commissions, economic development offices, large and small employers, chambers of commerce, community colleges, advocacy groups, and residents from towns and suburbs and rural areas. NWMCOG Director for Regional Planning & Community Development Matt McCauley states, "Implementation of the Grand Vision is far more likely to succeed than other like initiatives because of its leadership structure. The region has incorporated a distributed leadership model that avoids the traditional 'one agency, one approach' mindset. The Grand Vision is not one entity;== it's a collection of groups representing the public, private, and nonprofit sectors."

The six focus areas of The Grand Vision– Transportation, Growth and Investment, Housing, Food & Farming, Energy, and Natural Resources–are guided by networks of industry leaders from community colleges, chambers of commerce, public agencies, and nonprofits to help guide the goals into action.

- **The Transportation Network** seeks to ensure that transportation projects are designed to maintain and improve the existing road system, increase public transportation services between cities and villages in the region, and expand infrastructure serving pedestrians and bicyclists both in and out of town.

- **The Growth & Investment Network** exists to facilitate the growth and entrepreneurial culture of unique cities and villages in the region by strengthening and encouraging business development, removing barriers, utilizing incentives, and fostering public and private improvements.

- **The Housing Network** seeks to aid in development of a diverse mix of regional housing choices with affordable options that fit in with the small town character of the region's communities.

- **The Food & Farming Network** works to preserve agriculture as a viable economic practice in the region by protecting farmland, enhancing the

The Grand Vision is not one entity; it's a collection of groups representing the public, private, and nonprofit sectors.

affordability of farms, and supporting agricultural infrastructure.

- **The Energy Network** is to provide education and information about the issues relating to energy utilization, production, infrastructure, economics, efficiency, and conservation.

- **The Natural Resources Network** is to protect and enhance the water resources, forest, natural areas, and scenic beauty that preserve the area's quality of life and sustain the regional economy.

These networks are holding conferences in 2011 with government and business leaders to encourage public involvement in these planning networks and to share information about best practices. Using each of the networks, the NWMCOG convened a "first of its kind" event around the theme of "placemaking". *The Placemaking Summit* was held on March 1, 2011 in Traverse City. Coordinated by the Grand Vision Growth & Investment Network, this event featured nationally recognized experts on placemaking. The summit gathered state and local leaders to learn about placemaking as a strategy for leveraging community assets to improve economic prosperity.

The project team is providing additional resources and tools that assist local and regional partners in translating the vision on the ground. In April 2010, the team released *The Grand Vision Toolbox*, a collection of implementation tools for citizens and local officials that explains the variety of opportunities available for implementation, such as model zoning ordinances, housing strategies, or workforce development techniques, accompanied by information about possible timeframes, measureable indicators, and costs.

With support from the W.K. Kellogg Foundation, the NWMCOG also offers "Community Growth Grants" on an annual basis. The mini-grant program is intended to strengthen the region by removing barriers and creating incentives for greater public and private sector investment. Funded projects are intended to demonstrate localized examples of sustainable growth and development by implementing programs, processes, or projects that are consistent with the Grand Vision. Seven more Community Growth Grant projects will be announced in fall 2011.

Local Implementation

Counties and municipalities are adopting plans and ordinances that put the goals of The Grand Vision into action. For example:

Elk Rapids, Antrim County

- Design of a wastewater system that would also accept agricultural wastewater as means to better support the value-added agricultural activities in the region.

Frankfort, Benzie County

- New master plan is based around the Grand Vision's goals and supports advancement of the region's "New Economy" of knowledge-based workers, in addition to coordination of land use patterns, promotion of mixed housing typologies, adoption of "Complete Streets" policies, and environmental protection.[20]

Kalkaska, Kalkaska County

- Updating its master plan to incorporate elements of the Grand Vision, including conducting a walkability audit.[21]
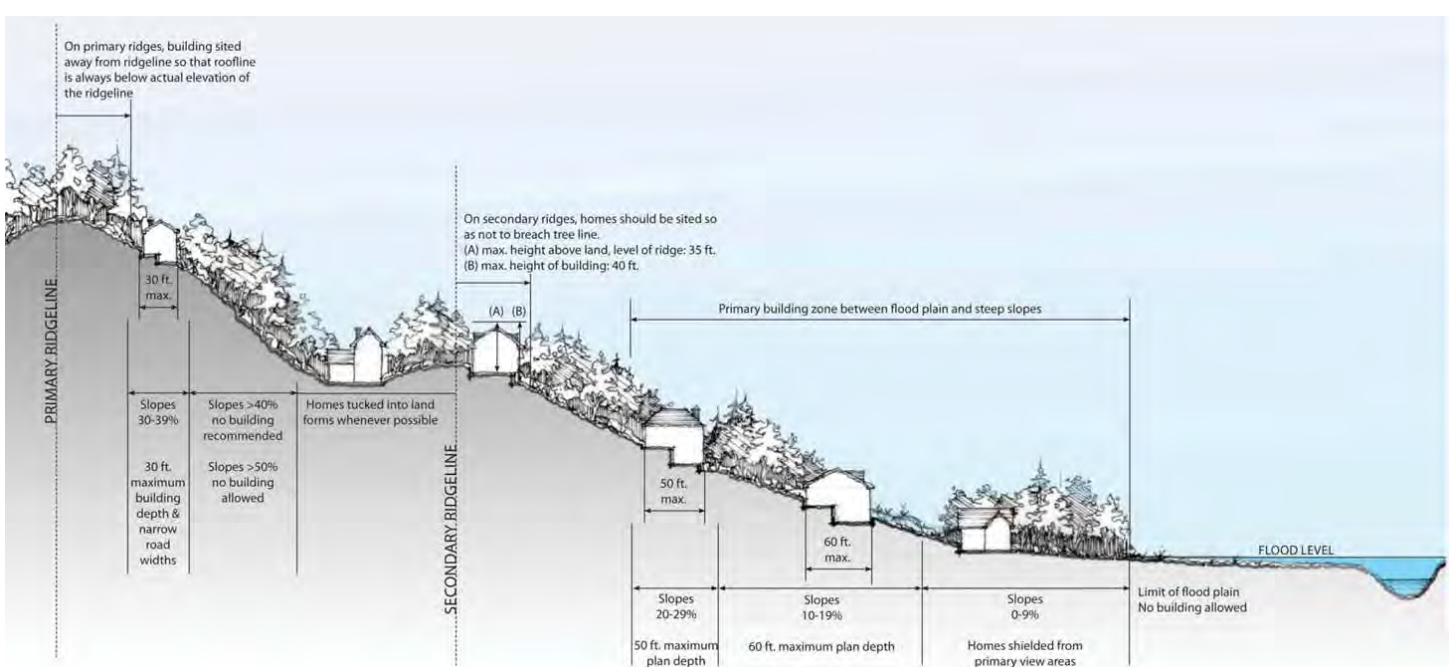
Empire, Leelanau County

- Implementation of a village-wide wi-fi system (first of its kind in the region) that provide no cost or low-cost Internet service to residents and visitors alike.

Suttons Bay, Leelanau County

- New zoning ordinance has been refreshed to incorporate form-based code and smart growth elements.

Cadillac, Wexford County

- Implementation of a market study to determine which sectors its economic development strategy should focus on in order to better diversify a current economy heavily dependent on manufacturing.[22]

On primary ridges, building sited away from ridgeline so that roofline is always below actual elevation of the ridgeline

On secondary ridges, homes should be sited so as not to breach tree line.
(A) max. height above land, level of ridge: 35 ft.
(B) max. height of building: 40 ft.

Primary building zone between flood plain and steep slopes

PRIMARY RIDGELINE

30 ft. max.

Slopes 30-39%

Slopes >40% no building recommended

30 ft. maximum building depth & narrow road widths

Slopes >50% no building allowed

Homes tucked into land forms whenever possible

SECONDARY RIDGELINE

(A) (B)

50 ft. max.

60 ft. max.

FLOOD LEVEL

Slopes 20-29%

50 ft. maximum plan depth

Slopes 10-19%

60 ft. maximum plan depth

Slopes 0-9%

Homes shielded from primary view areas

Limit of flood plain No building allowed

Best practices diagram from the Region A Toolbox (source: Southwestern Commission, the Community Foundation of Western North Carolina and the Lawrence Group Architects of North Carolina, Inc).

The Region A Toolbox

Following the extensive public participation process, capped off by the week-long charrette in 2008, the Mountain Landscapes Initiative project team in North Carolina set to work drafting the *Region A Toolbox*. The Toolbox is a comprehensive guide to land use planning and development issues; it includes the findings of the public outreach efforts and the charrette activities. It also contains practical, detailed information about how to approach all aspects of planning and design, with a specific focus on prevalent issues in the mountainous, rural communities of western North Carolina. It is not meant to be a mandate for local governments and landowners, but rather a manual for how to protect and enhance the region's assets to promote quality economic development and natural resource conservation. When the MLI began, it was because the region asked for tools to help guide planning and development in the mountains. The Region A Toolbox represents that culmination of that effort, capturing the experiences and desires of the community itself.

The Toolbox (available online at *http://www.regiona.org/MLI%20Toolbox.pdf*) contains detailed information and resources to address nine main subjects: Community Planning, Site and Building Design, Environmental Protection, Sustainable Transportation, Preserving Landscapes and Culture, Open Space Conservation, Affordable Housing, Farmland Preservation, and Economic Development. It also contains four case studies that illustrate potential concept plans and design solutions for specific locations in the region, and a collection of links to model ordinances, development guidelines, and other tools.

To implement the ideas raised through the MLI, the Community Foundation of Western North Carolina launched the *Next Steps Fund*, which provides funds for local governments and nonprofits to undertake public engagement processes, develop comprehensive planning documents and zoning ordinances, and carry out other projects. The Next Steps Fund will match local funding 1:1, up to a maximum of $10,000. The Southwestern Commission is administering an ARC grant to support local governments and nonprofits in adopting and implementing strategies identified in the Toolbox.

The Region A Toolbox (source: Southwestern Commission, the Community Foundation of Western North Carolina and the Lawrence Group Architects of North Carolina, Inc).

"It's not that the information itself is revolutionary. The best builders and developers in our region learned to build roads and to site homes so slopes don't erode and houses don't fall off the mountainside. Many of the best practices you'll see in our new 'Toolbox' came from that old store of knowledge. What is so different about this advice is that it has been collected and packaged as a response to a request from fiercely independent people who are not in the habit of telling their neighbors what to do. There's no doubt that part of the reason for the change in attitude is the growing awareness that a lot of what we took for granted is threatened. It is a made-in-the-mountains product we can all be proud of."

- Vicki Greene, Assistant Director of the Southwestern Commission

Lessons Learned

R DOs across the country are developing and implementing regional strategies that synthesize multiple systems and processes. This paradigm shift promotes increased collaboration across the public, private, and nonprofit sectors, across a variety of disciplines and multiple levels of government. Regional approaches that are based on strong data analysis and robust public outreach build plans that promote quality economic development rooted in asset-based planning and bottom-up planning principles. This report offers just a few of these stories that are taking place in many types of regions and communities; plenty more examples abound. Regions seeking flexible, nimble approaches to economic development recognize that sound land use planning integrated with transportation planning and environmental stewardship is crucial to shaping healthy, resilient regions.

Endnotes:

[1] "The History of Envision Utah," Envision Utah, http://www.envisionutah.org/historyenvisonutahv5p1.pdf.

[2] Ibid.

[3] Linda Giltz (Senior Planner, Land-of-Sky Regional Council), "Linking Lands and Communities in the Land-of-Sky Region" (webinar presentation, June 21, 2011). http://www.nado.org/land-based-sustainable-development-strategies-in-western-north-carolina/

[4] Ibid.

[5] "2011 Comprehensive Economic Development Strategy," Southwestern Commission, http://www.regiona.org/econdev/CEDS%202011%20Draft.pdf.

[6] "Traverse City," Michigan Department of Natural Resources and the Environment, http://www.michigan.gov/dnr/0,1607,7-153-30301_30505_31025-66202--,00.html.

[7] "2010 Census," U.S. Census Bureau, http://2010.census.gov/2010census/data.

[8] Matt McCauley (Director for Regional Planning & Community Development, NWMCOG), in interview with Courtney McCall, December 2010.

[9] "Reports," The Grand Vision, http://www.thegrandvision.org/about/reports/.

[10] "Economic Outlook: 2011," Utah Office of the Governor, http://governor.utah.gov/dea/ERG/2011EconomicOutlook.pdf.

[11] Mitch Poulsen (Executive Director, Bear Lake Regional Commission), "The Bear Lake Valley Blueprint"(presentation, Washington , DC, August 25, 2011). http://www.nado.org/wp-content/uploads/2011/08/Regional-Sustainable-Dev-POULSEN.pdf.

[12] "Cal-Denier Dairy," USDA Natural Resources Conservation Service, May 2010,ftp://ftp-fc.sc.egov.usda.gov/CA/news/Stories/area_3/cal-denier_dairy.pdf.

[13] Erica Anderson (Senior Planner, Land-of-Sky Regional Council), "WNC Forest Products Cooperative Marketing Project" (webinar presentation, June 21, 2011). http://www.nado.org/land-based-sustainable-development-strategies-in-western-north-carolina/; "WNC Forest Products Cooperative Marketing Project," http://wncforestproducts.wordpress.com/.

[14] Ron Townley (Local Government Services Director, Land-of-Sky Regional Council), e-mail message to author, September 16, 2011.

[15] Erica Anderson.

[16] "Rural-Urban Connections Strategy," Sacramento Area Council of Governments, http://www.sacog.org/rucs/pdf/RUCS%20Booklet%20 2011%20Web.pdf.

[17] Ibid.

[18] "Form-Based Code for Downtown," Winters, California, http://www.cityofwinters.org/pdf/FormBasedCodeforDowntownWintersChapter1758062509.pdf.

[19] Jon Donlevy (Winters City Manager), discussion with NADO Peer Exchange, March 10, 2011.

[20] Joshua Mills, e-mail message to Courtney McCall, January 24, 2011.

[21] Penny Hill (Village of Kalkaska, MI), interview with Courtney McCall, February 8, 2011.

[22] "Community Growth Grant Profile: Cadillac/Wexford County," The Grand Vision, http://www.thegrandvision.org/community-growth-grant-profile-cadillac-wexford-county.

For more information about the organizations and programs featured in this report, visit the following websites:

California:

- Sacramento Area Council of Governments   www.sacog.org
  - Blueprint Transportation and Land Use Plan   www.sacregionblueprint.org
  - Rural-Urban Connections Strategy   www.sacog.org/rucs

Michigan:

- Northwest Michigan Council of Governments   www.nwm.org
  - The Grand Vision   www.thegrandvision.org

North Carolina:

- Land-of-Sky Regional Council   www.landofsky.org
  - Building the Clean Energy Economy in W North Carolina   www.cleanenergywnc.org
  - Linking Lands and Communities   www.linkinglands.org
  - WNC Forest Products Cooperative Marketing Project   wncforestproducts.wordpress.com
- Southwestern Commission   www.regiona.org
  - Mountain Landscapes Initiative   www.mountainlandscapesnc.org

Utah:

- Bear River Association of Governments   www.brag.utah.gov
  - Bear Lake Valley Blueprint   www.bearlakevalleyblueprint.org
- Envision Utah   www.envisionutah.org

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