Sacramento Blueprint (Sacramento, CA)

Activity

Regional vision planning process using integrated land use, transportation modeling and extensive community involvement. The process developed a "blueprint" for how the region will grow and develop over the 50 year horizon.

Implementing Agency

Sacramento Area Council of Governments (Sacramento, California area Metropolitan Planning Organization)

Summary

The Blueprint project is a regional vision planning process that addresses land use, transportation, air quality, housing, and other regional issues. One of the core goals of the Blueprint process was to incorporate the opinions and views of a wide range of community members in planning for future growth and development. The Blueprint development process used innovative public engagement technologies to provide real-time feedback on the effects of different land use decisions on transportation, open space, and air quality. The visualization techniques were linked to the regional land use and travel demand models, providing a solid data-driven foundation. Since adoption of the Blueprint Preferred Scenario in December 2004, the Sacramento Area Council of Governments (SACOG) has worked with local and regional governments to support implementation of the Blueprint and incorporate its principles into other regional planning activities.

Link to Livability

The Blueprint development process was a proactive approach to projected future challenges. SACOG used advanced technical tools and a highly effective public outreach program to develop the Blueprint. The process resulted in a collaboratively developed regional plan that reflects an understanding of the linkages between land use and transportation, and accounts for important tradeoffs. Beyond the initial development of the Blueprint, the collective vision has since been incorporated into local plans, leading to more walkable, desirable communities, with a variety of housing and transportation options.

Context and Background

In 2002, the Sacramento region faced a projected increase of more than 1.7 million people and 1 million new jobs by the year 2050. The projected level of growth, combined with existing land use patterns, transportation priorities, and available funding, would significantly increase traffic congestion and air pollution. To address such challenges, the SACOG Board of Directors initiated the Sacramento Region Blueprint Project, an extensive study of the linkages among transportation, land use, and air quality. The Preferred Blueprint Scenario was adopted in December 2004 and its land use map is used in the 2035 SACOG Metropolitan Transportation Plan (MTP).

In addition to detailed land-use and travel data, and modeling, the Blueprint project included extensive community outreach to develop and assess guiding principles for the region's long-term growth. The results from the regional visioning process have been used by municipalities to guide local land use decisions, and by SACOG in developing and selecting transportation projects to best serve the region.

Detailed Description

The Blueprint focused on sophisticated modeling and technical analysis, and extensive public engagement to help the public, planners, and other regional stakeholders better understand various needs and goals, and to help shape future plans that would best reflect regional priorities.

Land Use and Transportation Forecasting – Technical Approach

The primary technical component of the Blueprint development process was the I-PLACE^{3}s platform, a public domain software package designed to integrate community participation, urban planning and design, and quantitative analysis. The Blueprint used a version of the software that could operate over the Internet, providing real-time feedback during public workshops. The software allowed users to apply a range of zoning designations to each land parcel in a given area. There are options to vary inputs such as building density and the number of available parking spaces. I-PLACE^{3}s was able to instantly calculate changes in each scenario and then display the results in tables and charts for easy comparison. By running the software over the Internet, the system did not require sophisticated equipment – it was possible to use laptops donated by local businesses.

SACOG utilized two additional tools to supplement the I-PLACE^{3}s model. The first was MEPLAN, a land use and economic forecasting model that allocated growth to the region's transportation analysis zones, including variables for development policies, development costs, and rents. Outputs from MEPLAN were disaggregated to the parcel level and used to populate the I-PLACE^{3}s database. The second tool was the regional travel demand model, SACMET, which used the impact assessment output from I-PLACE^{3}s. SACMET was enhanced with data from household travel surveys to adjust vehicle trips and vehicle miles traveled based on land use density, mix of uses, and distance measures at the zonal level. SACMET and MEPLAN have since been replaced by new generation models that better capture the relationships between land use and transportation, economic systems, and demographic changes. The integrated framework allows for better understanding of infrastructure investments and policy options.[1]

Linking the datasets required significant effort, taking six months to calibrate and integrate the models and develop the base case. It involved the participation of several outside advisors, who adapted MEPLAN to the Sacramento region and collected economic rent values for the

[1] For more information about emerging model technology, see: http://www.sacregionblueprint.org/technology/travel-model/

area for I-PLACE^{3}s. This investment was necessary, as it allowed for smooth data transfer between the models, leading to a successful modeling process.

Public Participation

Throughout the development of the Blueprint, SACOG held more than 30 neighborhood-level meetings and seven countywide public workshops (each with 100 to 300 participants). The workshops allowed participants to compare different planning scenarios by altering future land uses at a neighborhood level.

At the neighborhood meetings, participants were shown a base case land use map on a computer and asked to modify the zoning as desired. The map was connected to an online parcel-level database, providing participants with real-time feedback showing how altering zoning would affect a range of variables, including: vehicle trips and vehicle miles traveled, travel mode share, housing type mix within an area, distribution of growth in greenfield areas versus infill, land consumption (including prime agricultural land), and financial implications. The ability to provide immediate feedback allowed for multiple iterations to be discussed within a two to three hour workshop. A series of maps, data tables, and charts were provided to assist with visualization of potential land use changes and their impacts.

SACOG generated four land use scenarios that represented likely or desirable future outcomes, which were then combined with the transportation model and aggregated to the district level. The scenarios were subsequently combined with the results of the analyses from the neighborhood meetings, resulting in the creation of four new land use plans. The scenarios were also used in county-wide land use and transportation planning workshops, in which participants could select one of the four scenarios and modify it based on group priorities. This process resulted in development of the final Preferred Scenario, adopted in December 2004.

Preferred Scenario

The Preferred Blueprint Scenario is a vision plan for growth in the Sacramento region through 2050, generally consistent with the following growth principles:

- Transportation Choices – providing options for people to walk, ride bicycles, ride the bus, ride light rail, ride the train, or carpool.
- Mixed-Use Developments – locating homes and shops, entertainment, office and light industrial uses near each other to create active, vibrant neighborhoods. Mixed land uses can occur at many scales, and can include mixing uses within buildings or a combination of uses in close proximity.
- Compact Development – locating destinations close together to encourage more walking, biking, and public transit use, and shorten auto trips.
- Housing Choice and Diversity – providing a variety of housing options (apartments, condominiums, townhouses, and single-family detached homes on varying lot sizes) to serve households of all sizes and income levels and to allow people to live close to work.
- Use of Existing Assets – developing on infill, vacant, or underutilized lands to make better use of existing public infrastructure and reduce the cost of providing services.

- Quality Design – incorporating good functional and aesthetic design (setbacks, placement of garages, sidewalks, landscaping, building aesthetics, connected streets and paths, bike lanes, the width of streets) to make an area more desirable and facilitate walking and biking to work or neighborhood services.
- Natural Resources Conservation – including public use open space (such as parks, town squares, trails, and greenbelts) within development projects, preserving agricultural areas and habitats , employing energy efficient design, water conservation and stormwater management, and planting shade trees to reduce the ground temperatures in the summer.

The Blueprint map, shown in Figure 1, provides a concept-level illustration of the growth principles. While it was developed at the parcel-level to ensure a realistic application of the growth concepts, it is not intended for literal application at the parcel-level. The mapping is meant to generally illustrate the amounts and locations of land suitable for reinvestment or large-scale development, rather than indicate that specific parcels should or should not be developed in a particular manner. Such a level of planning is the responsibility of local governments and is beyond the scope of a regional, long-range planning process.

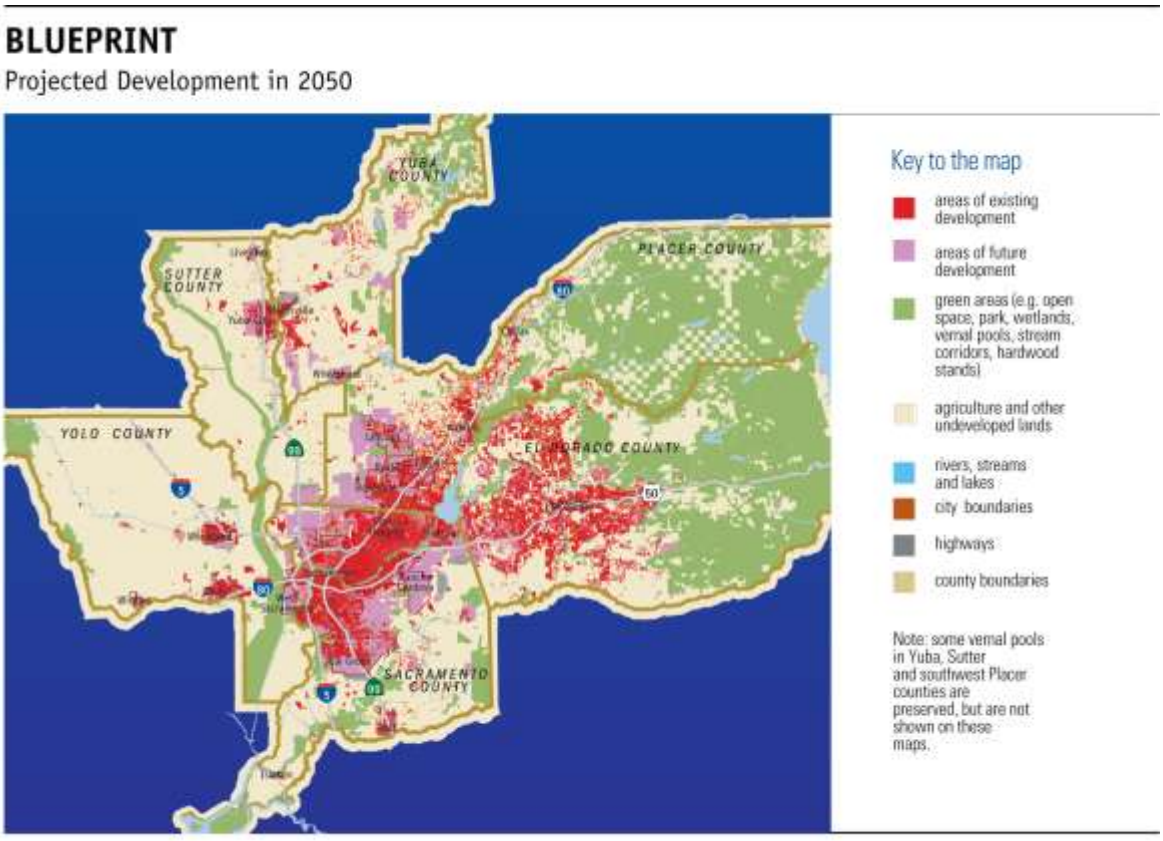

Figure 1: Preferred Blueprint Scenario Map

Table 1 shows how the Blueprint Scenario supports each of the general growth principles.

Table 1: Blueprint Preferred Scenario Support of Regional Growth Principles compared to the Base Case

Transportation Choices	The Blueprint Preferred Scenario assumes a greater access to transit, and reductions in daily vehicle minutes of travel, vehicle miles traveled, percent trips taken by personal automobile, and emissions of carbon dioxide and small particulates.
Mixed-Use Developments	The Blueprint Preferred Scenario assumes that 53 percent of people would live in communities with a mix of land uses by 2050, compared to 26 percent under the Base Case.
Compact Development	The Blueprint Preferred Scenario assumes an additional 304 square miles of new land needed for urban uses by 2050, compared to 661 square miles under the Base Case.
Housing Choice and Diversity	The Blueprint Preferred Scenario projects an increase to 35 percent attached homes and 17 percent single family homes on small lots, compared to 25 percent and 0 percent, respectively, in the Base Case.
Use of Existing Assets	The Blueprint Preferred Scenario assumes that 13 percent of all new housing and 10 percent of all new jobs would occur through reinvestment in infill areas, compared to all new development on vacant land under the Base Case.
Quality Design	The Blueprint Preferred Scenario assumes that 69 percent of people would live in pedestrian-friendly neighborhoods by 2050, compared to 34 percent in the Base Case.
Natural Resources Conservation	The Blueprint Preferred Scenario assumes conversion of 102 square miles from agricultural to urban uses, compared to 166 square miles under the Base Case.

Overall, there has been strong regional commitment to the Blueprint, with all local General Plans noting consistency. The Blueprint Scenario Map is was incorporated into the SACOG 2035 Metropolitan Transportation Plan (MTP) as the regional growth forecast and land use allocation estimating where and how much growth will occur by 2035.

As part of the preparation of the 2035 land use map and allocation for the MTP update, SACOG asked each local government to develop a strategy for determining if and how it would incorporate the Blueprint growth scenarios into its planning and growth decisions, over time. SACOG staff was available to provide technical assistance to support these efforts as necessary.

SACOG requested that each jurisdiction pass a resolution in support of the growth allocation and accompanying 2035 map. Many complied with this request and some jurisdictions also

included a statement of what actions they might pursue to implement the growth allocation and 2035 map. Examples include: guidelines to consider Blueprint principles in local planning decisions, changes to decisionmaking procedures, consideration of General Plan and implementing code amendments, identifying opportunities to encourage reinvestment in infill areas, and using the regional database and modeling tools in community planning processes. These actions would be phased in over several years, with local governments using their local planning processes and citizen participation to decide which specific changes to adopt.

Blueprint Implementation and Next Steps

SACOG is committed to providing strong implementation support to make the Blueprint Scenario a reality, rather than just a high-tech planning exercise. Since the Blueprint was adopted in December 2004, SACOG has helped its members implement the principles of the Blueprint Preferred Scenario, through a combination of technical support, educational activities and resources, and financial assistance.

Examples of implementation support include:

- Modeling and analysis of different transportation and/or land development scenarios
- Training sessions for I-PLACE^{3}S scenario planning software
- Professional assistance with meeting facilitation and small group leadership
- Photo simulations
- Image database
- Form-Based Codes Handbook
- Infill videos
- Planning seminars

SACOG also provides direct financial support for projects or activities that implement the Blueprint principles. The support comes in the way of competitive financial assistance. In 2002, SACOG committed to dedicate $1.074 billion in funding over a 23-year period toward activities that support Blueprint implementation. There are four programs that award grants on a two-year cycle:

- The Air Quality Funding Program most recently provided approximately $1 million to fund transportation-related projects that help the region reach air-quality attainment status.
- The Bicycle/Pedestrian Funding Program most recently provided $8.6 million to fund capital and non-capital bicycle and pedestrian projects in large, medium, or small cities and towns in the Sacramento, Sutter, Yolo, and Yuba counties.
- The Transportation Demand Management Funding Program provided about $1 million to fund activities that focus on moving people through the region more efficiently through carpooling, vanpooling, using transit, walking and telecommuting.
- The Community Design Funding Program most recently provided $17.5 million in financial assistance to public and private projects that implement the Blueprint Principles. In 2004, SACOG committed approximately $500 million to the program over a 23-year period.

The Blueprint remains a signature SACOG project and its implementation is a high priority. Most of SACOG's activities have some connection to the Blueprint, whether or not they officially considered Blueprint implementation. The Blueprint is incorporated into other high priority efforts such as the MTP update and the Rural Urban Connections Strategy, an economic and environmental sustainability strategy for rural areas.

Blueprint Funding

Development of the Blueprint cost approximately $4.3 million over the period from 2000-2005. Much of this cost was attributed to model development and modification, and planning and conducting the workshops. In the time that has passed since the beginning of the Blueprint development, it is possible that the state of the practice and software have evolved, and that for agencies wanting to follow a similar approach, some of the work to adapt the software to work with the travel demand model may not now be necessary.

SACOG made use of a variety of funding sources to support the Blueprint project. Table 2 shows approximate amounts and funding sources.

Table 2: Blueprint Development Funding Sources

Source	Amount ($)
SACOG regional planning funds	1,600,000
Federal planning funds	500,000
California housing grant	500,000
Congressional earmarks	500,000
Foundations	400,000
State of California	300,000
Caltrans	300,000
Sacramento Regional Foundation	100,000

Ongoing implementation support activities cost in the range of $300,000 per year, funded through Federal planning funds. The implementation activities primarily include development and plan reviews, educational workshops and outreach, and general land use and smart growth assistance.

In October 2010, a consortium of local and regional governmental, academic, civic, business, and community-based organizations, led by SACOG, received a $1.5 million grant from the U.S. Department of Housing and Urban Development (HUD). The grant will help the region plan for the construction of housing and employment centers in high-frequency transit areas. The consortium will use these funds to assist local governments with infill development, integrated natural resources planning, and integrating federal, state, regional and local plans, policies and programs. The grant funds will help implement the Blueprint; having the Blueprint plan in place made SACOG a much more competitive candidate in applying for these funds. The

organizations involved are matching the HUD funds with another $3.3 million in local funds and in-kind work to bring the maximum benefit to the region.

Lessons Learned

Good public engagement contributes to successful projects and builds support for future planning.

The Blueprint project has generated significant interest and involvement in the planning process. The use of real-time modeling programs allowed members of the public to understand the challenges facing their communities, and more effectively participate in identifying solutions. The process also built trust and goodwill among citizens, planners, and elected officials. This foundation has been critical at times requiring difficult or potentially controversial decisions.

Partnerships with strong, community-based organizations are essential.

In development of the Blueprint, SACOG worked very closely with a range of partners, primarily Valley Vision, a nonprofit association of people and organizations working to secure the social, environmental and economic health of the Sacramento Region. Valley Vision played an integral role, assisting with much of the grassroots community outreach and fundraising. Strong partnerships with well-connected local agencies and stakeholders are key to project success.

The Blueprint principles continue to be reinforced and strengthened over time.

In the years since the Blueprint Scenario was adopted, most projects in the Sacramento region have incorporated the principles identified in the plan. There is broad regional commitment to the Blueprint, with cities and counties voluntarily implementing the Blueprint as they update their general plans, zoning codes, and infrastructure plans. While some projects that were not "Blueprint-friendly" have moved forward, the vast majority have been consistent with the Blueprint. Some inconsistent projects have been less marketable or more contentious than expected after their implementation, which has helped to reinforce the value of the Blueprint principles. As SACOG moves forward in the next update of the MTP, they have found that there is interest in strengthening the approach and taking the principles even further.

The comprehensive data clearinghouse provides a valuable resource throughout the region.

Through the Blueprint process, SACOG developed a regional cooperative data program, which facilitates sharing of GIS data. The cooperative program includes parcel-level and center line street files for local towns and counties, as well as the fire district and the utility district. Shared information is a valuable resource that helps to reduce data costs among local planning organizations. Some communities have used the I-PLACE^{3}s model and the GIS data in their general plan updates. I-PLACE^{3}s results are most useful when the model is run with parcel level land use data, reinforcing the value of the data sharing program.

Data-driven approach lends objectivity and helps to build support.

SACOG found that use of such a comprehensive data-driven approach to be very effective. Once the system was built, it could be adjusted relatively simply by changing assumptions and other policy variables. The technical approach and transparency facilitated development of

multiple scenarios, and helped to build public support, as participants could better understand the source of future decisions.

For Further Information

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Websites and Publications

SACOG www.sacog.org
SACOG Blueprint http://www.sacregionblueprint.org/