

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Planning and Building	(2) MEETING DATE 10/9/2012	(3) CONTACT/PHONE Jeff Legato, Mapping and Graphics Specialist III/ (805) 781-5102	
(4) SUBJECT Presentation on San Luis Obispo County Community Design Model			
(5) RECOMMENDED ACTION Receive a staff and consultant presentation on the Community Design Model. No action is required.			
(6) FUNDING SOURCE(S) Sustainable Communities Grant	(7) CURRENT YEAR FINANCIAL IMPACT \$34,100 in grant funds \$2,000 County in-kind match	(8) ANNUAL FINANCIAL IMPACT \$0.00	(9) BUDGETED? Yes
(10) AGENDA PLACEMENT { } Consent { } Presentation { } Hearing (Time Est. _____) {X} Board Business (Time Est. _____)			
(11) EXECUTED DOCUMENTS { } Resolutions { } Contracts { } Ordinances {X} N/A			
(12) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A		(13) BUDGET ADJUSTMENT REQUIRED? BAR ID Number: { } 4/5th's Vote Required {X} N/A	
(14) LOCATION MAP N/A	(15) BUSINESS IMPACT STATEMENT? No	(16) AGENDA ITEM HISTORY {X} N/A Date _____	
(17) ADMINISTRATIVE OFFICE REVIEW Reviewed by Leslie Brown			
(18) SUPERVISOR DISTRICT(S) All Districts			

County of San Luis Obispo



TO: Board of Supervisors

FROM: Planning and Building / Jeff Legato, Mapping and Graphics Specialist III

VIA: Chuck Stevenson, AICP, Division Manager, Long Range Planning

DATE: 10/9/2012

SUBJECT: Presentation on San Luis Obispo County Community Design Model

RECOMMENDATION

Receive a staff and consultant presentation on the Community Design Model. No action is required.

DISCUSSION

Background

The County received a grant from the California Strategic Growth Council to conduct several studies related to strategic growth and infrastructure. This included a community design model to evaluate a wide range of potential effects of varying types of development. The purpose of the model is to provide important information for staff, the public and your Board that can be used when considering implementation of County General Plan principles and policies through community plan updates, development review and other planning efforts.

The Planning and Building Department hired the consulting firm *Placeways* to prepare a Geographic Information Systems (GIS) based community design model. After reviewing three proposals, a selection committee determined that *Placeways* was the most qualified consultant to prepare the model. *Placeways* is a software and services firm that specializes in GIS-based decision support tools for sustainable community development. Their proposal was uniquely distinguished from the others by their ability to provide a greater number of indicators, their technical knowledge and expertise, their ability to work with existing County GIS software, and their ability to easily customize the model to meet our specific needs.

The Planning and Building Department is working on a number of initiatives related to how future growth may occur in unincorporated towns that this model is also related to. These efforts include:

- *Complete Communities Survey*. Inventories infrastructure and public facilities that are needed in the towns of San Miguel, Templeton, Oceano, and Nipomo that could assist in contributing to being more “complete” as future growth occurs. It also evaluates alternative funding strategies to pay for and maintain these improvements. The Complete Communities survey will provide inputs to the Community Design model related to necessary infrastructure.
- *Infill Development Standards*. Examines existing County General Plan policies and Land Use Ordinance regulations for opportunities to reduce or remove barriers that hinder high-quality and compatible infill development. The model can be used to check the impact proposed standards may have.

- *Economic Element.* This update to the Economic Element of the County General Plan contains goals and policies that will guide actions the County needs to take to assure a vital economy and continued high quality of life. The community design model can calculate several economic indicators that may play a role in the development of proposed economic policies.
- *San Miguel Community Plan.* Establishes policies that will provide for future growth within available or planned for resources, encourages employment opportunities, economic vitality and development in a manner that is compatible with the scale and character of San Miguel. Will include a public facilities financing plan.

Project Description

The Community Design Model is a sophisticated GIS application that uses existing data and County owned ESRI ArcView GIS software. The model employs a variety of adjustable inputs such as persons per household, water consumption, and square feet of building per employee. These inputs are then linked to existing and future development and are a factor in the model indicators. The Community Design Model calculates the effects of existing development and potential effects of future growth under various alternative scenarios pursuant to the County General Plan policies.

The model uses a software program CommunityViz, an ArcGIS extension, to apply Land Use Ordinance standards and then provides simultaneous updates to capacity when inputs or land uses are changed. Future scenarios are built in the model by placing new “chips” that represent dwelling units and employees. The model also allows for designated land uses to be adjusted or changed in future scenarios and provides the effects of those changes; for example, land use and transportation among others. The model covers the entire unincorporated territory of the county. A community-level application of the model will allow county staff to select a study area to which they wish to apply the model. The community level model will first be applied during preparation of the San Miguel Community Plan update and can later be applied to any parcel subset within the county.

The community design model will use what is known about development based on previous work completed in the county and other projects that are underway. For example, the Complete Communities Survey and the Infill Standards project (two other strategic growth grant-funded projects). Another project that will provide information to provide data for the model is the Oceano Revitalization Plan that is nearing completion. The model is also able to use information from the census, Assessor, Resource Management System reports, EnergyWise Plan, Growth Management Ordinance, etc. Inputs from these reports are used in the model to calculate a host of indicators including population density, employment density, vehicle miles traveled, residential density, commercial square feet, CO2 emissions, water use, jobs housing balance and others.

The following is a complete list of indicators generated from the model:

- Demographics
 - Population
 - Population density
 - Employment
- Transportation
 - Vehicle miles traveled (VMT)
 - VMT per capita
 - Vehicle trips per day
 - Intersection density
 - Walkability
 - Households served by transit
 - Average distance to transit (residential)
 - Average distance to transit (non-residential)
 - Distance to commercial
 - Distance to Parks/recreation

- Land Use and Housing
 - Residential density
 - Single-family units
 - Multifamily units
 - Mixed use units
 - Total units
 - Non-residential density
 - Retail square feet
 - Office square feet
 - Other non-residential square feet
 - Use mix (residential vs. non-residential)

- Environment and Climate Change
 - Residential energy use
 - Non-residential energy use
 - Residential GHG emissions
 - Water use
 - Wastewater generation
 - Open space percent
 - Dwelling units in constrained areas
 - Total constrained area
 - Total suitable area

- Economy and Economic Completeness
 - Jobs-housing balance
 - Jobs by type
 - Cost of new transit facilities

- Subjective Indexes
 - Livability (based on a subjective combination of factors drawn from the Livability Principles)

It is important to understand that the indicators will not be the final word, but will serve as information tools. They are based on assumptions and therefore will simply guide planners and decision makers on the potential impacts of various development types.

Benefits

The model will allow County staff to identify primary effects of possible changes to current General Plan land uses and densities and therefore aid in developing appropriate recommendations for future growth. The model will also allow staff to easily create alternative land use scenarios that are tailored for specific communities, areas and conditions. These scenarios can assist the County in deciding where to focus development and in shaping policy and development standards.

The ability of staff to apply the model to any parcel set of their choosing will provide maximum flexibility in reporting results both on current conditions and future scenarios. CommunityViz has a very flexible framework so staff can easily modify numerical inputs to the model, such as assumptions for water demand and use. CommunityViz also provides for updated data to be brought into the model allowing staff to skip manually updating their GIS models. Because CommunityViz is an open, flexible framework, staff also can add new indicators as needed. Overall, the Community Design Model allows for the easy creation of scenarios containing modified land uses and new development and calculates land use, transportation, and other impacts on the fly as changes are made.

The Planning and Building Department will use the model in several ways. Primarily though, it will be used to gauge potential effects of various development scenarios and other purposes such as:

- During the update of planning documents including area plans, community plans and specific plans.
- Alternative land uses for Environmental Impact Reports.
- Cross reference and verify calculated impacts identified in other reports.
- Implementation of the EnergyWise Plan by quantifying reductions in GHG emissions resulting from land use changes. This can in turn assist the County in tracking progress in meeting GHG reduction targets established in the plan.
- Evaluate proposed ordinance changes.
- Help to understand impacts of proposed community expansion areas.
- Evaluate infill development

Public Outreach

Given the highly technical nature and tight timeline set by the grant for this project, it was not subjected to public input. Members from the business and housing community will be shown the model and it's functionality in an upcoming demonstration. The Planning and Building Department is open to all suggestions and comments related to the model and its inputs and will respond to any received.

OTHER AGENCY INVOLVEMENT/IMPACT

Placeways and County staff are working with the San Luis Obispo Council of Governments (SLOCOG) in coordination with using this model. Coincidentally, Placeways is simultaneously preparing a similar model for SLOCOG. This will help ensure that the two models will function similarly and produce consistent results.

FINANCIAL CONSIDERATIONS

The Community Design Model was prepared for a cost of \$34,100. It was funded through a Sustainable Communities Planning Grant from the California Strategic Growth Council. The County is providing a supporting match of in-kind staffing worth approximately \$2,000 budgeted as part of Department operations.

RESULTS

Implementing the Community Design Model will assist Planning staff and other reviewing agencies in understanding and analyzing the potential effects of alternative land use choices. It will assist the public in their understanding of, and the basis for, how land use recommendations were arrived at, and it will aid decision-making bodies in arriving at more informed land use and policy decisions.