

SCAG Scenario Planning Model (SPM): Status Overview and Demo

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Modeling and Forecasting

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Outline

- What is SPM?
- What has been done to date and Why?
- SPM Functionalities : feature highlights
- ...how? : sites walk-through
- What's next?

What is SPM?

- A comprehensive web-based land use **sketch planning tool** for scenario development, modeling, and data management
- Built on 'UrbanFootprint (UF)' modeling platform developed by Calthorpe Associates
- Currently being customized and enhanced for use by major MPOs in CA

What has been done and Why?

- Started from a ground-up, working with SPM Working Group and developed two major functionalities:
 1. Sophisticated **Data Management** site through 3 rounds of pilot testing
 - Provide a common platform to share/review/update local data, enabling seamless integration with regional data
 - Reduce effort on a local input process for the next RTP/SCS cycle while maintaining the integrity of local input

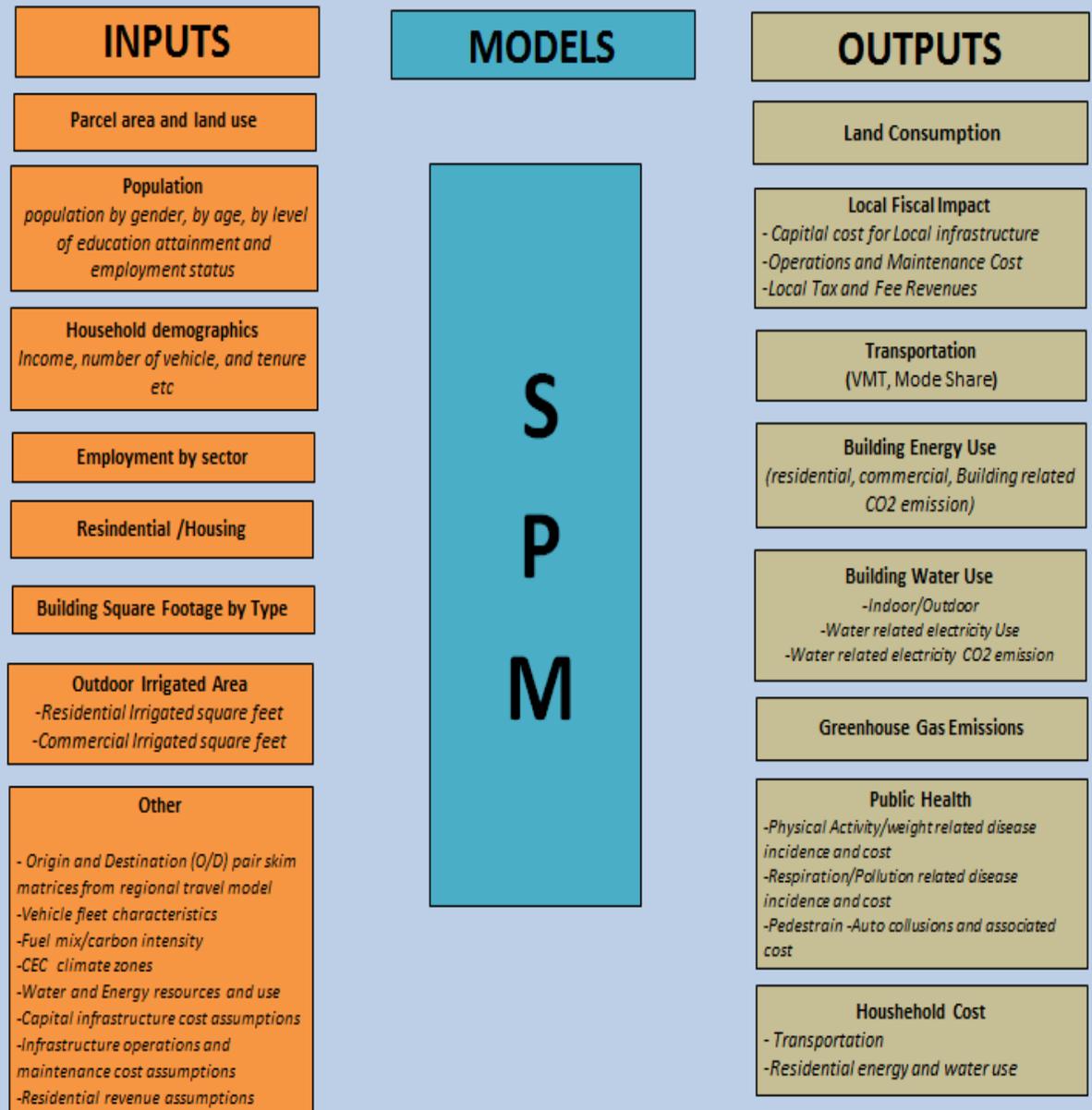
What has been done and Why? (cont.)

2. Initial version of Scenario Development and Analysis site for internal use
 - Provide a comprehensive existing condition for the year 2012 as a *base canvas*
 - Allow planners to develop future scenarios via web-based scenario painter and assess their impacts on the fly
 - Sufficient to support our SCS development activities for now

SPM Functionalities : *feature highlights*

- **Data Management site:**
 - Explore data using attribute query, join, and summarize
 - Edit and export layers
 - Approve (or reject) edits and merge
- **Scenario Development and Analysis site:**
 - Review the base condition and preloaded future scenarios
 - Create/update scenarios and analyze their impacts on water and energy consumption, local costs and revenues, and VMT (land consumption and public health modules will be added later)
 - Review and customize existing built forms

SCAG Scenario Planning Model



How ? – sites walk-through (DM site)

The screenshot shows the SCAG UrbanFootprint Scenario Planning Model interface. It includes a search bar at the top, a table of selection results, a map with various layers, and an edit window on the right. Numbered callouts (1-5) point to specific UI elements: 1. Layer Management Window, 2. Map Toolbar, 3. Explore Window, 4. Edit Window, and 5. Map Area.

id	comment	updated	approval_status	apn	scaguid12	city	county
621698		2014-08-26T18:11:16	null	453-160-08	590468974	Irvine	Orange
626330		2014-08-26T18:11:16	null	453-160-09	590468975	Irvine	Orange
626343		2014-08-26T18:11:16	null	453-160-10	590468976	Irvine	Orange
626336		2014-08-26T18:11:16	null	453-160-02	590468973	Irvine	Orange

1: Layer Management Window
2: Map Toolbar
3: Explore Window
4: Edit Window
5: Map Area

How ? – sites walk-through (SD site)

The screenshot displays the SCAG UrbanFootprint Scenario Planning Model interface. The main map area shows a geographic view of Orange County with various urban footprint layers overlaid. The interface includes several key components:

- 1: Layer Management Window:** Located on the left side, it lists various layers such as 'Background Imagery', 'Google map', 'Region Existing Land Use Parcels', and 'Urbanfootprint Layers'.
- 2: Map Toolbar:** Located below the search map, it contains navigation tools like 'Search Map', 'Zoom In', 'Zoom Out', and 'Full Screen'.
- 3: Explore Window:** Located at the top left, it shows the 'Base Condition' selected, along with 'Local Input' (RTP 2035) and 'Scenario A'.
- 4: Analysis/Editor Window:** Located on the right side, it displays various analysis charts and data tables, including 'Base Condition: Socioeconomic Totals', 'Base Condition: Employment By Sector', and 'Base Condition: Dwelling Units By Type'.
- 5: Map Area:** The central geographic map showing the urban footprint of Orange County.

Base Condition: Socioeconomic Totals

Category	Value
Population	3,022,499
Dwelling Units	1,008,786
Employment	1,523,315

Base Condition: Employment By Sector

Sector	Value
Retail	483,958
Office	543,556
Industrial	357,205
Public	137,957
Other	579

Base Condition: Dwelling Units By Type

Type	Value
Single Family	629,017
Attached	233,219
Multifamily	156,550

Base Condition: Water Use Analysis

Category	Value
Total Annual Water Use (gal)	NaN
Annual Residential Water Use (gal)	NaN
Annual Commercial Water Use (gal)	NaN
Annual Residential Water Use (Indoor/Outdoor)	NaN
Annual Commercial Water Use (Indoor/Outdoor)	NaN

1: Layer Management Window
2: Map Toolbar
3: Explore Window
4: Analysis/Editor Window
5: Map Area

What's next?

- Roll-out of the Data Management site to all local jurisdictions and provide training
- Work closely with the SPM Working Group to further develop the Scenario site for local application
- Integrate the two sites and continue to enhance

Thank You

