

# VISION CALIFORNIA | CHARTING OUR FUTURE

*California must plan for future growth – by 2050, the state’s population is expected to grow to nearly 60 million people and 24 million jobs.\* The path that we take to accommodate growth can lead us in many directions. Vision California provides the information we need to make informed decisions about how and where we want to grow.*



## What is **VISION CALIFORNIA**?

Vision California is an unprecedented effort to explore the critical role of land use and transportation investments in meeting the environmental and fiscal challenges facing the Golden State over the coming decades. The project, funded by the California High-Speed Rail Authority in partnership with the California Strategic Growth Council, is developing two new modeling tools to formulate and compare scenarios for how California can accommodate growth. This introduces the Vision California *Rapid Fire* modeling tool and the results of two statewide scenarios.

\* California DOF and EDD - based projections.

## The *Rapid Fire* Model

The *Rapid Fire* model is a user-friendly, spreadsheet-based tool used to produce and evaluate high-level statewide and regional scenarios. Using assumptions about population and job growth, our travel behaviors, and the changing characteristics of our cars, buildings, fuels, and energy portfolio, the model can quickly test the effects of our land use and policy decisions across a wide variety of metrics, including GHG emissions and air pollution; fuel, water and energy use; land consumption; and infrastructure cost.

## Statewide Scenarios

The following statewide scenarios pair a distinct land use option with a moderate trend-based policy package. The land use options vary the way that California accommodates the same growth in population and jobs. They include a “Trend” policy package that assumes we meet (but do not go far beyond) California’s adopted Pavley I vehicle efficiency standards and Low Carbon Fuel Standard, and make modest improvements in building energy efficiency, water use efficiency, and renewable energy generation.

### “BUSINESS AS USUAL”

This scenario combines the trend land use patterns of past decades with trend-based assumptions for modest improvements in auto and fuel technology, building energy and water efficiency, and energy generation.

### “GROWING SMART”

In this scenario, the state sees an increasing proportion of urban infill and compact growth. This land use pattern is combined with the same trend-based policy set as for the Business as Usual scenario.



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CALTHORPE ASSOCIATES  
URBAN DESIGNERS, PLANNERS, ARCHITECTS

# VISION CALIFORNIA | STATEWIDE SCENARIOS SUMMARY

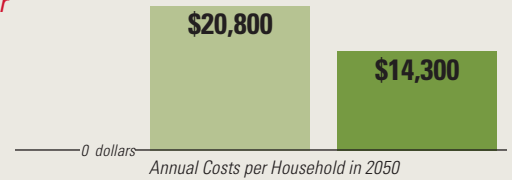
## 2050 SCENARIO RESULTS

**BUSINESS AS USUAL** (Trend Policy / Trend Growth)    **GROWING SMART** (Trend Policy / Smart Growth)

### HOUSEHOLD COSTS

More centrally located homes can dramatically reduce household driving and utility costs. California households in the Growing Smart scenario spend **\$6,400 less per year** on auto-related costs and utility bills.

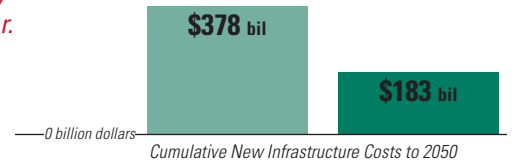
*Over \$6,400 saved per household on auto costs and utility bills.*



### INFRASTRUCTURE COSTS

Infrastructure costs rise in line with land consumption, as dispersed development calls for longer extensions of sewers, water pipes, local roadways, and utility lines. Through 2050, the Growing Smart scenario **saves more than \$194 billion** in capital infrastructure costs, more than \$24,000 per household.

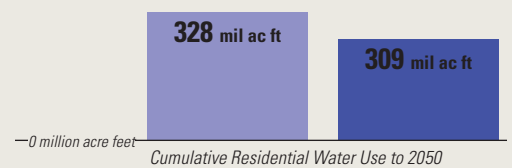
*\$24,000 total saved per new housing unit, or \$4.3 billion per year.*



### WATER

More compact development patterns, with more smaller lot single family homes, townhomes, and multifamily housing, save water. By 2050, the Growing Smart scenario **saves 19 million acre-feet of water**.

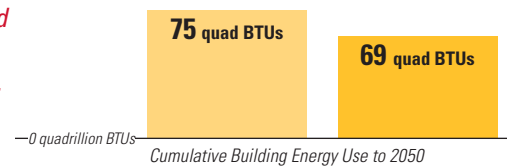
*Saves enough water to fill Hetch Hetchy more than 50 times.*



### BUILDING ENERGY USE

The Growing Smart scenario **cuts annual energy use by 15%** in our homes and businesses. This leads to lower household utility bills, greater energy security, and lower carbon emissions.

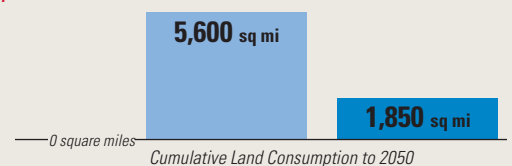
*Energy savings would power ALL homes in California for 8 years.*



### LAND CONSUMPTION

Trend development patterns will double California's urban footprint by 2050, consuming more than 5,500 square miles of farmland, open space, and recreation areas. The Growing Smart scenario **saves over 3,700 square miles** of this precious and finite resource.

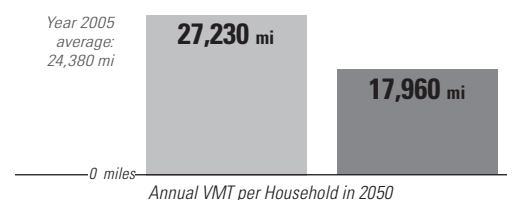
*Saves more land than Delaware and Rhode Island combined.*



### VEHICLE MILES TRAVELED (VMT)

Automobile emissions account for about 40% of carbon emissions in California. They are also a primary cause of asthma and respiratory illnesses. How much we drive also impacts how much we spend on fuel, insurance, and maintenance. The Growing Smart scenario, with more walkable, transit-oriented development, reduces VMT by nearly **3.7 trillion miles** to 2050.

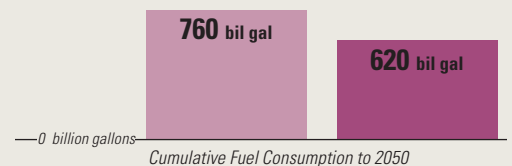
*VMT reduction equivalent to taking ALL cars off California's roads for 12 Years.*



### FUEL CONSUMPTION

Reduced VMT in the Growing Smart scenario reduces automobile fuel consumption by nearly **140 billion gallons** to 2050. This saves the average California household **\$2,600 per year**.

*Fuel savings equivalent to nearly 2 years of oil imports to the US.*



### GREENHOUSE GAS EMISSIONS

More compact development patterns, along with more efficient cars and buildings, cleaner fuels, and a cleaner energy portfolio are all essential in reducing GHG emissions. The Growing Smart scenario prevents the release of **70 million metric tons** of carbon dioxide equivalent in 2050, or 25% less than a Business as Usual future.

*Savings equal to emissions offset by 45,000 square miles of trees in a year - a forest covering over 1/4 of California.*

