# **URBAN** FOOTPRINT

The First End-to-End Platform Dedicated to Sustainable Urban Planning & Design

February 2018















## Priority Conservation Areas

## Alameda County, C.

Endangered Species Areas

East Males

Finite DI

California (California)

San Francisco

## Alameda County, C.



## Pollution Burdens





## Health Disadvantage Index

## Alameda County, C.



Household Income

Alameda County, C.



## Poverty Concentration

Contaty CA

![](_page_12_Picture_2.jpeg)

![](_page_13_Picture_0.jpeg)

## 3D Buildings

## Alameda County, C.

![](_page_14_Picture_0.jpeg)

## 3D Buildings + Land Use

## Alameda County, C.

![](_page_15_Picture_0.jpeg)

![](_page_16_Picture_0.jpeg)

![](_page_17_Figure_0.jpeg)

## Parcel Land Use

![](_page_17_Picture_2.jpeg)

![](_page_18_Picture_0.jpeg)

![](_page_19_Picture_0.jpeg)

## Important Agriculture Lands

![](_page_19_Picture_2.jpeg)

Environmental Features

![](_page_20_Picture_1.jpeg)

![](_page_20_Figure_2.jpeg)

![](_page_21_Picture_0.jpeg)

Transit Lines + Stops + Schools

![](_page_22_Picture_1.jpeg)

![](_page_23_Picture_0.jpeg)

![](_page_24_Figure_0.jpeg)

Transit Access to Schools

![](_page_24_Picture_2.jpeg)

![](_page_25_Picture_0.jpeg)

![](_page_26_Picture_0.jpeg)

![](_page_27_Picture_0.jpeg)

![](_page_28_Picture_0.jpeg)

![](_page_29_Picture_0.jpeg)

# Data is both the solution

![](_page_30_Picture_1.jpeg)

Data is both the solution and the problem.

![](_page_31_Picture_1.jpeg)

**By 2020, 1.7** megabytes of data will be created every second, for every person on earth.

Source: Capterra, "10 Surprising Big Data Statistics."

## Planning Technology is Struggling to Keep Up.

![](_page_33_Picture_1.jpeg)

![](_page_34_Picture_0.jpeg)

Data, Scenarios, Analytics – Anywhere in the USA

![](_page_34_Picture_2.jpeg)

![](_page_34_Picture_3.jpeg)

Data Library

Scenario Planning

![](_page_34_Picture_6.jpeg)

### Real-Time Analytics

### Three key features optimize planners' day-to-day tasks.

![](_page_35_Figure_1.jpeg)

#### 1. Extensive Data Library

Access to the nationwide Base Canvas with over 100 additional reference layers.

![](_page_35_Figure_4.jpeg)

#### 2. Scenario Planning Workflows

Develop unlimited scenarios in a snap with a comprehensive set of Building and Place Types.

![](_page_35_Picture_7.jpeg)

#### 3. Real-Time Analytics Modules

Foster community consensus with clear reporting. Evaluate and share plan impacts at the outset.

![](_page_36_Figure_0.jpeg)

![](_page_37_Figure_0.jpeg)

![](_page_38_Figure_0.jpeg)

10 Marcol - 6 1

![](_page_39_Figure_0.jpeg)

### Advanced scenario planning

Evaluate project impacts at the outset by comparing alternative outcomes.

![](_page_40_Picture_2.jpeg)

#### **Compare and Contrast Scenarios**

Analyze potential community impacts from all angles with advanced scenario planning. Find the best solution with the ability to project results across a wide range of environmental, social, and economic factors.

## Methods that Make a Difference

Art and Science: Data Driven Scenario Planning & Effective Communication

![](_page_41_Picture_2.jpeg)

Envision Utah State Adopts Growth Management Act

![](_page_41_Picture_4.jpeg)

Honolulu TOD Advances Transit Construction

![](_page_41_Picture_6.jpeg)

Louisiana Speaks Guides Post-Hurricane Investments

![](_page_41_Picture_8.jpeg)

Chongqing, China World Bank Pilot Project

![](_page_41_Picture_10.jpeg)

Southern California Supports \$200B Bonds for Transit

![](_page_41_Picture_12.jpeg)

Portland Metro Leads to West Side Rail

![](_page_41_Picture_14.jpeg)

Mexico City Scenarios Impact Urban Policy

![](_page_41_Picture_16.jpeg)

Perth, Australia Groundbreaking Masterplan

## Envision Utah – Community-Driven Alternatives

Unprecedented Coalition Around a Common Vision

![](_page_42_Figure_2.jpeg)

## Envision Utah – Analysis of Impacts Wins the Day

Unprecedented Coalition Around a Common Vision

Land Area Added **Vehicle Miles Traveled Vehicle Emissions** (square miles) (per day) (tons per day) 85.3 86 500 2,700 2,660 420 84 2,650 375 82 2,600 79.2 80 270 250 78 2,550 76.6 76.0 2,512 2,511 2,501 167 76 2,500 111 125 74 2,450 72 70 2,400 0 С С С Α В D Α В D Α В D

## Envision Utah – Analysis of Impacts Wins the Day

Unprecedented Coalition Around a Common Vision

![](_page_44_Figure_2.jpeg)

## Cost of Infrastructu (Billions)

Local Roads and Utilities
Regional Roads
Regional Transit
Regional Water

## Envision Utah – Quality Growth Strategy (1999)

Unprecedented Coalition Around a Common Vision

![](_page_45_Picture_2.jpeg)

![](_page_45_Picture_3.jpeg)

![](_page_45_Figure_4.jpeg)

Open Space & Constrained Land

Centers & Corridors

New Growth & Redevelopment

## Vision California 50 million by 2050

Francisco

Gacrar

![](_page_46_Figure_1.jpeg)

10571

-

acramento

San

Francisco - Dillo

![](_page_46_Picture_2.jpeg)

Fresne

### LAND CONSUMED

More land than Delaware and Rhode Island combined

![](_page_47_Figure_2.jpeg)

![](_page_48_Picture_0.jpeg)

![](_page_49_Picture_0.jpeg)

![](_page_50_Figure_0.jpeg)

### **GREENHOUSE GAS EMISSIONS**

#### Equal to Emissions Offset of a Forest Covering More Than 1/2 of California

![](_page_51_Figure_2.jpeg)

![](_page_52_Figure_0.jpeg)

![](_page_53_Figure_0.jpeg)

	Finantagen + WL						
÷ (	3 Benze (https://withertoriprot.lo	P_Mp=100000034_Max+10014538211010	43327575434_5441128347284.7389	Their residence of the	2 International International In		4
	Anto Annana I Anton	na Geperunty 1 New North Hillage	1			A+ Common (designment)+	NO. BRIDE
	Lorr 1 %	• Geographics	1		A Martin H	BARRIE -	-
-	Canage Comman 1				A A A		-
	i				THE REAL PROPERTY OF	ALL DE LES	2
	(		Constant of Constant		3	THE TAL	and a
	Disation per la constante de l	and the	and IF at			ABA SAN	2-1
LML	Champinepter -1	A CAN		in her had been been been been been been been bee	* ***	All and make	3
	() transforms the excitations of [		CTND and		1 Log As		7
63						AND A DOT	
	Tanta Armania Salamana 😹 🖡						
	Disstance in the sector		Participation and a second	Provide and the second s	2		
-	Test to even and all		Anolygia	P- Domonting			
	Treat Access that Access in 1		Analysis	a keponing			
	Taut tone of pame of 1		STATE AND IN THE REAL PROPERTY INTO THE REAL PROPERTY I	IL PHAT & PLATE	100 1000	ASIA	
	[man to take to be and		BILL ME	and service and	A DECK DECK	20	
	and a second sec		Participant and		日 見 は 告 に 日 に		179
	That as a constrained as \$	1 m m	TREE MAN		CALCELLA PARTY IN		1: -
	[manning al				CALCULAR STATE	A DIME. STA	
	[maintenance al		13回回》(Salin	THE REAL PROPERTY.	1 1		
	Ommerce at		San San	Construction in Francesco			
	0		Mail Policit		2 L		-
	0 1		EXPLANATION STOLE	I HARRY THE REAL PROPERTY OF			
	the at the two Preces	10	Real Health	CONTRACTOR OF STREET			
	· · · · · · · · · · · · · · · ·	200	REAL PROPERTY AND A	The second se	N. Contraction		1
	Disettine 1	Zinda a				in the	Read of

## Foster clear communication with comprehensive reporting.

Compare and contrast outcomes for each scenario across eleven analysis modules.

![](_page_55_Picture_2.jpeg)

## Partnering for a sustainable future.

Our analytics capabilities will continue to expand.

#### **Conservation Module**

By standardizing land cover types, reference data, and analytical methods, the Conservation Module compares scenarios for their impacts on key ecological systems.

![](_page_56_Picture_4.jpeg)

## Partnering for a sustainable future.

Our analytics capabilities will continue to expand.

![](_page_57_Picture_2.jpeg)

Natural Resources Defense Council

Partnering to build equity modeling capabilities.

![](_page_57_Picture_5.jpeg)

California Building Energy Explorer

Working together for local climate action planning, regional land use planning, and energy analysis at multiple scales.

![](_page_57_Picture_8.jpeg)

U.S. Environmental Protection Agency

Partnering to build the federal storm water model (EPA SWMM).

## Support sustainability at all scales.

Evaluate local efforts in the regional context or flip the scale to assess plans at the local level.

![](_page_58_Figure_2.jpeg)

#### **URBAN** FOOTPRINT

urbanfootprint.com

Joe DiStefano, AICP joe@urbanfootprint.com @UFPlatform

71

![](_page_59_Picture_3.jpeg)