GREEN VALLEY INITIATIVE

The Green Valley Initiative

Comprehensive Economic Development Strategy

A Framework
for
Green Technology Business and Job Creation
in the
Inland Empire

Prepared by

USC Center for Economic Development
School of Policy, Planning, and Development
University of Southern California

Foreword

The Green Valley Initiative is a movement to bring green technologies and sustainable practices to the Inland Empire. The desired outcomes are to reduce the region's long commutes, promote more efficient use of the region's under-utilized resources, and align business and land-use practices to increase quality of life and promote sustainable economic development.

This effort was initiated when the Green Institute for Village Empowerment sponsored a stakeholders meeting on June 1, 2007. Stakeholders present at the kick-off meeting included County Supervisors from Riverside and San Bernardino counties, and representatives from education, local government, Indian tribes, and business. The purpose of this gathering was to initiate the Green Valley Initiative (GVI), a regional economic development plan focused on bringing green technologies, renewable energy, alternative transportation, and sustainable lifestyles to the Inland Empire.

Developing and implementing a comprehensive economic development strategy requires planning and vision. Stakeholders met during the summer and autumn of 2007 to discuss what it would take to transform the local economy into a green economy. The Principal Leaders of the Sustainable Economic Development Committee are Bill Carney, President & CEO of the Inland Empire Economic Development Partnership, Michael Morris, Vice President of Commercial Development of LNR Commercial Property Group, and Sarah Mundy, Deputy Director of Riverside County Economic Development Agency.

At the end of the process, the following recommendations were made:

- Encourage the growth of local green technology businesses
- Attract renewable energy businesses
- Encourage local entrepreneurial efforts through
    1. Green business development
    2. Development of green technology incubators, targeted commercialization support, and development of green technology parks
- Encourage local green finance from angel investors to venture capital investments to operations

This report highlights the competitive strengths of the Inland Empire for attracting, retaining and growing green technology businesses, identifies strategies to encourage the growth of existing companies and increase the region's competitiveness for attracting renewable energy businesses, and identifies strategies to encourage local entrepreneurial activity in green technology industry sectors.

Table of Contents

Introduction

The Green Valley Comprehensive Economic Development Strategy (CEDS) has been developed under the guidance and direction of the Green Valley Initiative Sustainable Economic Development Committee for the Inland Empire, which is composed of the counties of Riverside and San Bernardino. See Appendix for a list of committee members. The CEDS outlines the requirements that must be met to qualify for assistance under most Economic Development Administration (EDA) programs. Public Law 105-393, the Economic Development Administration Reform Act of 1998, and the Public Works and Economic Development Act (PWEDA) of 1965, as amended, requires a strategy to qualify for assistance under EDA public works programs, economic adjustment, and most planning programs.

The Inland Empire is strategically located, ethnically diverse, and a vibrant player in the state, national, and international economy. The region exhibits a distinct identity within Southern California and with a population of 4,170,780 represents 11 percent of California's population.

In this report, we present the CEDS for the Inland Empire or the Region, in the form of an economic roadmap that attempts to diversify and strengthen the local and regional economy. This document presents recent socio-economic trends and identifies economically distressed areas that are eligible for EDA assistance. It also presents economic development problems, opportunities, goals and objectives, and discusses strategies to alleviate poverty and create new high-paying jobs in the area.

This CEDS is intended to serve as a baseline document and part of a dynamic process to evolve economic development strategies that influence planning and implementation of projects. Pursuant to 13 C.F.R. § 303.7, this CEDS is divided into the following sections:

1. Background
2. Analysis of Economic Development Problems and Opportunities
3. Community and Private Sector Participation
4. CEDS Goals and Objectives -- Defining Regional Expectations
5. Strategic Projects, Programs and Activities
6. CEDS Plan of Action
7. Performance Measures

1. Background
This section provides an overview of the Inland Empire with a discussion on population growth and socio-economic trends including age, race, income, education levels, occupational distribution, housing, and other relevant information. Altogether, these topics provide an accurate description of how the region exists today. The section also provides data on area eligibility for federal funding based on criteria provided by EDA, U.S. Department of Commerce.

2. Analysis of Economic Development Problems and Opportunities
This section highlights the main strengths and weaknesses of the Inland Empire, and identifies problems and opportunities. The analysis incorporates materials from other government sponsored or supported plans, identifies past, present, and projected future economic development investments, and identifies and analyzes economic clusters within the region.

3. Community and Private Sector Participation
A diverse constituency of public and private sector including residents, businesses, local government staff, community-based organizations, and economic development corporations has participated in the development and implementation of CEDS. In this section, we present community identified problems and opportunities.

4. CEDS Goals and Objectives -- Defining Regional Expectations
A CEDS is the result of a continuing economic development process developed with broad-based and diverse public and private sector participation. In this section, we identify goals and objectives necessary to solve the economic problems, stakeholder vision, and recommended economic development strategies.

5. Strategic Projects, Programs and Activities
In this section, we identify the projects, programs and activities designed to implement the goals and objectives of the CEDS. Based on the community participation process, we identify suggested projects and vital projects that best address the region's greatest needs or best enhance the area's competitiveness.

6. CEDS Plan of Action
The plan of action identifies next steps necessary to implement the goals and objectives identified in the CEDS to strengthen and diversify the local and regional economy.

7. Performance Measures
In this section, we enumerate the performance measures that will be used in evaluating the successful development and implementation of the Green Valley CEDS. Measures include and are not limited to the number and type of jobs created, number of jobs retained, amount and type of private sector investment leveraged after implementation of the CEDS.

I. Background

The Inland Empire is comprised of the counties of Riverside and San Bernardino in Southern California (Map 1). This area is among the fastest growing regions in the nation. The Inland Empire covers 27,312[i] square miles or 17.6 percent of the State of California's 155,959[ii] square miles. Its population of 4,170,780[iii] accounts for only 11 percent of the state's total population due to the geography of the region.

Riverside County
Riverside County has a land area of 7,207 square miles and roughly half of the population of the Inland Empire. The largest city and the county seat is the City of Riverside, which is one of 24 incorporated cities in the county. Riverside County was created by the Legislature in 1893 from the territory of San Diego and San Bernardino Counties. Riverside County is bordered by the state of Arizona on the east, San Bernardino County on the north, Orange County on the west, and San Diego and Imperial Counties on the south.

Incorporated Cities in order of size:

Riverside	Palm Desert	Norco
Moreno Valley	Perris	Beaumont
Corona	Palm Springs	Blythe
Temecula	Lake Elsinore	Desert Hot Springs
Murrieta	La Quinta	Rancho Mirage
Indio	Coachella	Canyon Lake
Hemet	San Jacinto	Calimesa
Cathedral City	Banning	Indian Wells

San Bernardino County
San Bernardino County has a land area of 20,105 square miles and is the largest county in California. It houses roughly half of the population of the region. Approximately 53 square miles are covered by water. On April 26, 1853, San Bernardino County was created from parts of Los Angeles, San Diego, and Mariposa counties. The largest city, the City of San Bernardino was incorporated as the county seat in 1854 and it is one of 24 incorporated cities in the county. San Bernardino County is bordered by the States of Arizona and Nevada on the east, Inyo County on the north, Kern and Los Angeles Counties on the west, and Orange and Riverside Counties on the south.

Incorporated Cities in order of size:

San Bernardino	Chino Hills	Twentynine Palms
Ontario	Upland	Adelanto
Rancho Cucamonga	Redlands	Barstow
Fontana	Apple Valley	Loma Linda
Rialto	Colton	Yucca Valley
Victorville	Highland	Grand Terrace
Hesperia	Yucaipa	Big Bear Lake
Chino	Montclair	Needles

Exhibit 1: Map of Inland Empire

In the next section, we discuss demographic trends and the socio-economic profile of the Inland Empire and the cities, with populations greater than 65,000, which meet EDA funding criteria. Those cities are Apple Valley, Chino, Fontana, Hemet, Hesperia, Indio, Moreno Valley, Ontario, Redlands, Rialto, San Bernardino, and Victorville. The cities that are not eligible for EDA funding are Corona, Chino Hills, Murrieta, Rancho Cucamonga, Redlands, Temecula, and Upland.

The Inland Empire is represented by the data for the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA) which encompasses the two counties. For consistency, Inland Empire or region is used when referring to the Riverside-San Bernardino-Ontario MSA. The data is from Claritas. The 1990 and 2000 figures are from the 1990 and 2000 U.S. Census. The 2008 estimates and 2013 forecasts were calculated by Claritas. Their methodology is described in the text box.

Claritas Update Demographics

For more than 35 years, Claritas has delivered annual demographic data updates. In building the update, Claritas relies on data obtained through federal government agencies such as the U.S. Census; U.S. Postal Service & Office of Federal Housing Enterprise Oversight; local government agencies and non-governmental sources such as Equifax, Valises, ADVO, and the National Association of Realtors. This data is utilized in a combined 'bottom-up' and 'top-down' process for generating current year estimates and five-year projections for demographic base counts, population characteristics, household characteristics and housing unit characteristics.

In the "bottom-up" process, local level data is used to assess demographic growth and decline in small geographies. In the "top-down" process, U.S. Census Bureau estimates and other federal data are used to develop totals for demographic variables for larger areas such as cities, counties and states. These independently produced estimates serve the important function of methodological controls to ensure that any indications of demographic change are consistent across all demographic data sources.

www.claritas.com

A. Population

The Inland Empire experienced growth of 25.7% between 1990 and 2000 and an estimated growth of 28.1% between 2000 and 2008 as shown in Exhibit 1. According to the Claritas forecast, the region is growing faster this decade than last; however this growth is not evenly distributed throughout the two counties. Between 2000 and 2008 Apple Valley, Chino, and Hesperia had almost twice the growth of the previous decade, while the population of Indio and Redlands had more than doubled. The most significant among these is Redlands with 13.3% growth between 2000-2008 in comparison to 1.5% between 1990 and 2000. In contrast, Ontario, Rialto, and San Bernardino experienced a decline in growth between 2000 and 2008. The forecast is for continued growth at a slightly slower rate.

Exhibit 2: Population Growth

City	Population						
	1990 Census	2000 Census	2008 Estimate	2013 Projection	Growth 1990-2000	Growth 2000-2008	Growth 2008-2013
Inland Empire	2,588,793	3,254,821	4,170,780	4,800,532	26%	28%	15%
Apple Valley	46,168	54,239	72,922	84,989	17%	34%	17%
Chino	59,803	67,168	80,854	90,364	12%	20%	12%
Fontana	87,444	128,929	177,288	208,186	47%	38%	17%
Hemet	49,088	58,812	72,042	81,992	20%	23%	14%
Hesperia	50,909	62,582	89,240	105,996	23%	43%	19%
Indio	37,554	49,116	82,771	103,693	31%	69%	26%
Moreno Valley	118,757	142,381	190,199	223,188	20%	34%	17%
Ontario	134,910	158,007	178,000	193,953	17%	13%	9%
Redlands	62,649	63,649	72,015	78,531	2%	13%	9%
Rialto	72,300	91,873	100,024	107,289	27%	9%	7%
San Bernardino	170,740	185,401	200,150	213,661	9%	8%	7%
Victorville	50,624	64,029	106,865	132,807	26%	67%	24%

Source: U.S. Census, Claritas 2008 Demographic Update

B. Density

The Inland Empire has density of only 153 persons per square mile due to the large portion of each county that is unpopulated but filled with natural features such as mountain ranges, deserts, and wildlife reserves. Within the cities studied, the densest cities are Fontana and Rialto and the least dense are Apple Valley and Hesperia.

Exhibit 3: Density

Geography	2008 Population Estimate	Area (sq.miles)	Density (Persons/ sq.miles)
Inland Empire	4,170,780	27,260	153
Apple Valley	72,922	73	994
Chino	80,854	21	3,841
Fontana	177,288	36	4,868
Hemet	72,042	26	2,810
Hesperia	89,240	67	1,325
Indio	82,771	27	3,101
Moreno Valley	190,199	51	3,713
Ontario	178,000	50	3,576
Redlands	72,015	35	2,030
Rialto	100,024	22	4,574
San Bernardino	200,150	59	3,403
Victorville	106,865	73	1,468

Source: U.S. Census, Claritas 2008 Demographic Update

C. Households

The Bureau of Census defines household as "a person or group of people who occupy a housing unit as their usual place of residence. The number of households equals the number of occupied housing units in a census." We observe trends similar to population growth in household growth. The number of households experienced an increase of 19.4 percent in the Inland Empire from 866,804 in 1990 to 1,034,812 in 2000. One reason for strong household growth is migration from neighboring counties due to the availability of less expensive single-family housing. The estimate of growth over the past eight years is even greater at 25 percent and is expected to slow to 13 percent in the next five years.

As shown in Exhibit 3, all of the cities except Rialto and San Bernardino experienced significant growth in households between 2000 and 2008. The percentage growth of households in Rialto decreased from 12.8% between 1990 and 2000 to 4.4% between 2000 and 2008. The growth of households between 2000 and 2008 almost doubled for Hemet, Hesperia, Indio, Moreno Valley, Redlands, San Bernardino and Victorville than over the previous decade. According to the

Claritas forecast, a majority of the cities will continue experiencing an increase in households but at a slower rate between 2008 and 2013.

Exhibit 4: Household Growth

	Household						
	1990 Census	2000 Census	2008 Estimate	2013 Projection	Growth 1990-2000	Growth 2000-2008	Growth 2008-2013
Inland Empire	866,804	1,034,812	1,297,214	1,472,131	19%	25%	13%
Apple Valley	15,621	18,557	24,641	28,470	19%	33%	16%
Chino	15,678	17,304	20,044	21,952	10%	16%	10%
Fontana	26,283	34,014	44,931	51,510	29%	32%	15%
Hemet	23,092	25,252	30,482	34,331	9%	21%	13%
Hesperia	16,700	19,966	27,599	32,189	20%	38%	17%
Indio	11,003	13,871	23,560	29,345	26%	70%	25%
Moreno Valley	34,967	39,225	51,232	59,064	12%	31%	15%
Ontario	40,771	43,525	47,517	50,757	7%	9%	7%
Redlands	22,768	23,593	26,271	28,401	4%	11%	8%
Rialto	21,864	24,659	25,753	26,952	13%	4%	5%
San Bernardino	56,438	56,330	58,380	60,877	0%	4%	4%
Victorville	16,855	20,893	33,593	40,841	24%	61%	22%

Source: U.S. Census, Claritas 2008 Demographic Update

The proportion of family to non-family households is shown in Exhibit 4. Three quarters of households in the Inland Empire are families. Fontana has the highest proportion of family households at 86 percent. Only three of the cities studied, Hemet, Redlands, and San Bernardino, have fewer family households than 75%.

Household size is tabulated in Exhibit 5. In the Inland Empire, 37% of households have 4 or more people and 63% have 3 or less. In contrast, nine of the studied cities have more households of 4 or more people. Five of the cities, Chino, Fontana, Moreno Valley, Ontario, and Rialto, have greater than 10% more households of 4 or more people. Hemet and Redlands have more small households containing 3 or less people, with 82% and 74% respectively.

Exhibit 5: 2008 Estimate of Households by Household Type

	2008 Estimate	Family Households	Non-Family Households
Inland Empire	1,297,214	75%	25%
Apple Valley	24,641	77%	23%
Chino	20,044	82%	18%
Fontana	44,931	86%	14%
Hemet	30,482	60%	40%
Hesperia	27,599	79%	21%
Indio	23,560	78%	22%
Moreno Valley	51,232	84%	16%
Ontorio	47,517	79%	21%
Redlands	26,271	68%	32%
Rialto	25,753	83%	17%
San Bernardino	58,380	73%	27%
Victorville	33,593	76%	24%

Source: U.S. Census, Claritas 2008 Demographic Update

Exhibit 6: 2008 Estimate of Households by Household Size

	2008 Estimate	1-person Household	2-person Household	3-person Household	4-person Household	5-person Household	6-person Household	7-person Household
Inland Empire	1,297,214	19%	28%	16%	16%	10%	5%	5%
Apple Valley	24,641	18%	33%	17%	15%	9%	5%	3%
Chino	20,044	13%	21%	18%	20%	13%	7%	7%
Fontana	44,931	10%	18%	17%	20%	16%	9%	9%
Hemet	30,482	33%	38%	11%	9%	5%	2%	2%
Hesperia	27,599	16%	28%	18%	17%	11%	6%	5%
Indio	23,560	16%	25%	16%	16%	13%	7%	8%
Moreno Valley	51,232	11%	21%	18%	21%	14%	8%	8%
Ontario	47,517	15%	21%	16%	17%	13%	8%	10%
Redlands	26,271	26%	32%	17%	14%	7%	3%	2%
Rialto	25,753	13%	19%	17%	19%	14%	9%	10%
San Bernardino	58,380	20%	24%	16%	15%	11%	7%	7%
Victorville	33,593	18%	27%	17%	17%	11%	6%	4%

Source: U.S. Census, Claritas 2008 Demographic Update

D. Age

According to 2008 Claritas estimates, the Inland Empire is made up of 23 percent youth and children (Age 14 and below), 51 percent working age (age 25-64) and 10 percent seniors. Exhibit 6 provides a breakdown of the population by age group. Although there is variation between cities, as a group they are within one percentage point of the Inland Empire average.

The cities with the widest variance of youth and children aged 0-14 are Fontana with 28.6 percent and Redlands with 18.6 percent. On the other end of the age spectrum, the cities with the widest variance are Hemet with 30 percent and Fontana and Moreno Valley with 5 percent.

There is much less variation in the working aged population. Nine cities are within 2 percentage points of the Inland Empire, three are within 4 percentage points, and only Hemet is 10 percentage points less than the average.

Exhibit 7: 2008 Estimate of Population by Age

	2008 Estimate	Age 0-9	Age 10-14	Age 15-20	Age 21-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65 +
Inland Empire	4,170,780	15%	8%	10%	6%	16%	14%	13%	8%	10%
Apple Valley	72,922	14%	9%	11%	6%	13%	11%	13%	10%	13%
Chino	80,854	14%	8%	11%	7%	18%	16%	13%	8%	6%
Fontana	177,288	19%	10%	10%	6%	16%	16%	12%	7%	5%
Hemet	72,042	13%	6%	7%	5%	14%	11%	9%	7%	30%
Hesperia	89,240	15%	9%	11%	6%	15%	13%	13%	9%	10%
Indio	82,771	18%	8%	10%	6%	19%	15%	10%	6%	8%
Moreno Valley	190,199	16%	9%	11%	6%	18%	14%	13%	7%	5%
Ontario	178,000	18%	9%	10%	6%	18%	16%	12%	7%	6%
Redlands	72,015	12%	7%	10%	6%	15%	13%	14%	11%	12%
Rialto	100,024	18%	10%	11%	6%	16%	14%	12%	7%	6%
San Bernardino	200,150	18%	9%	10%	6%	16%	14%	11%	7%	7%
Victorville	106,865	17%	10%	10%	6%	14%	14%	12%	8%	10%

Source: U.S. Census, Claritas 2008 Demographic Update

E. Race and Ethnicity

The census data tracks both race and ethnicity by race. These have been combined in Exhibit 7 to show the percentage that is not Hispanic or Latino by race and the percentage of the population that is Hispanic or Latino. In the Inland Empire as a whole, 45 percent of the population is Hispanic or Latino according to the 2008 estimates from Claritas. 39 percent is White, 7 percent is Black or African American, 5 percent is Asian, 1 percent is American Indian or Alaska Native, and 2% are from two or more races.

All of the cities are within 1 percentage point of the average in population of American Indian and Alaska Native, and Two or More Races. The range is wider for the Asian population, 4 percentage points at the widest. However, with the exception of Victorville, the studied cities range widely from the average for the Inland Empire in the remaining population distribution.

In Apple Valley, Hemet, and Redlands over 50 percent of the population is White and less than 30 percent of the population is Hispanic or Latino. In Chino, Fontana, Indio, Ontario, Rialto, and San Bernardino, the reverse is true, less than 27 percent of the population is White and over 57 percent of the population is Hispanic or Latino. Hemet has the largest white percentage with 61 percent, Indio has the largest Hispanic or Latino percentage with 80 percent, and Moreno Valley has the largest Black or African American population with 20 percent.

Exhibit 8: 2008 Estimate of Race and Ethnicity

	2008 Estimate	Not Hispanic or Latino					Hispanic or Latino of Any Race
		White Alone	Black or African American Alone	American Indian & Alaska Native Alone	Asian Alone	Two or More Races	
Inland Empire	4,170,780	39%	7%	1%	5%	2%	45%
Apple Valley	72,922	58%	10%	1%	3%	3%	25%
Chino	80,854	27%	7%	0%	6%	2%	58%
Fontana	177,288	16%	12%	0%	5%	2%	65%
Hemet	72,042	61%	3%	1%	2%	2%	30%
Hesperia	89,240	51%	4%	1%	1%	3%	40%
Indio	82,771	15%	2%	0%	2%	1%	80%
Moreno Valley	190,199	22%	20%	0%	8%	3%	46%
Ontario	178,000	17%	6%	0%	4%	2%	70%
Redlands	72,015	55%	4%	1%	6%	2%	30%
Rialto	100,024	14%	19%	0%	2%	3%	62%
San Bernardino	200,150	20%	15%	1%	5%	2%	57%
Victorville	106,865	35%	13%	0%	4%	3%	44%

Source: U.S. Census, Claritas 2008 Demographic Update

F. Educational Attainment

Formal educational attainment is an important indicator of employment-related skills and predictor of lifetime earning potential. A population's education attainment profile plays an important role in employment rates, household income, and type of employers that recruit from or locate near that population base.

The educational attainment profile for the Inland Empire is represented for the population aged 25 or above in Exhibit 8. In the region, 75 percent of the population aged 25 or above has completed a High School education. However, in Chino, Indio, Ontario, Rialto, and San Bernardino, less than 67% of the population aged 25 or above has completed their High School education. On the other end of the scale, in Redlands, 86% of the population aged 25 or above has completed their High School education, 19% have their bachelor's degree and another 16% has completed both a bachelor's degree and a graduate degree.

Exhibit 9: 2008 Estimate of Population Age 25+ by Educational Attainment

	2008 Estimate	< High School	High School Graduate (or GED)	Some College, no Degree	AA Degree Only	Bachelor's Degree	Graduate Degree
Inland Empire	2,534,471	25%	25%	26%	7%	11%	6%
Apple Valley	44,550	18%	28%	30%	8%	10%	6%
Chino	49,461	29%	26%	24%	7%	10%	3%
Fontana	97,855	33%	25%	25%	7%	8%	3%
Hemet	50,232	26%	31%	27%	5%	7%	4%
Hesperia	52,672	27%	31%	27%	7%	5%	3%
Indio	48,039	42%	23%	21%	4%	6%	4%
Moreno Valley	108,750	25%	25%	27%	8%	10%	5%
Ontario	103,050	37%	24%	23%	6%	8%	3%
Redlands	46,720	14%	18%	25%	8%	19%	16%
Rialto	54,927	33%	28%	24%	7%	6%	2%
San Bernardino	112,673	35%	25%	22%	6%	8%	4%
Victorville	61,147	23%	30%	29%	8%	7%	4%

Source: U.S. Census, Claritas 2008 Demographic Update

G. Income and Poverty

Household Income is used to determine poverty. Exhibit 9 shows the median household income level for the Inland Empire and the cities studied. Eight of the cities fall below the median and four fall above. Exhibit 10 shows the distribution of incomes from less than $15,000 to over $100,000.

Exhibit 10: 2008 Estimate of Median Household Income

	Median Household Income
Inland Empire	$53,854
Apple Valley	$49,202
Chino	$69,562
Fontana	$61,025
Hemet	$33,709
Hesperia	$50,487
Indio	$45,902
Moreno Valley	$57,358
Ontario	$53,218
Redlands	$60,426
Rialto	$50,072
San Bernardino	$38,162
Victorville	$44,507

Source: U.S. Census, Claritas 2008 Demographic Update

Exhibit 11: 2008 Estimate of Household Income

	2008 Estimate	< $15,000	$15,000-$24,999	$25,000 - $49,999	$50,000-$74,999	$75,000-$99,999	$100,000 or more
Inland Empire	1,297,214	11%	10%	25%	20%	13%	20%
Apple Valley	24,641	12%	11%	28%	19%	12%	18%
Chino	20,044	7%	8%	19%	21%	16%	30%
Fontana	44,931	9%	8%	24%	21%	16%	22%
Hemet	30,482	18%	19%	33%	16%	8%	8%
Hesperia	27,599	11%	11%	27%	23%	14%	13%
Indio	23,560	12%	12%	31%	21%	10%	14%
Moreno Valley	51,232	9%	9%	25%	22%	16%	19%
Ontario	47,517	10%	9%	28%	24%	14%	16%
Redlands	26,271	9%	9%	24%	20%	13%	25%
Rialto	25,753	11%	10%	28%	22%	13%	16%
San Bernardino	58,380	20%	14%	29%	18%	9%	10%
Victorville	33,593	15%	14%	27%	20%	13%	12%

Source: U.S. Census, Claritas 2008 Demographic Update

Chino, Fontana, and Redlands all have median incomes greater then the Inland Empire and have a higher percentage of households earning over $100,000 and a lower percentage of households earning less than $15,000. Moreno Valley also has a higher median income; however, it is the incomes between $75,000 and $99,999 that raise the median. All of the other cities have lower proportions of households earning over $100,000 than the region.

In Exhibit 11, the 2008 estimate of the percentage of families living below the poverty line is listed. San Bernardino has twice the proportion of families as the region which correlates to the percentage of households with income than $15,000 per year. Hemet does not follow suit because the size of families in Hemet is smaller. The low incomes in Hemet are tied to the large retired population.

Exhibit 12: 2008 Estimate of Families below the Poverty Line

	2008 Estimate
Inland Empire	12%
Hemet	12%
Indio	17%
Moreno Valley	12%
Apple Valley	14%
Fontana	12%
Hesperia	12%
Rialto	14%
San Bernardino	24%
Victorville	15%
Chino	7%
Ontario	12%
Redlands	8%

Source: U.S. Census, Claritas 2008 Demographic Update

H. Transportation to Work

The 2008 estimate of workers aged 16 and above is shown in Exhibit 12 by the type of transportation used to travel to work. Inland Empire workers aged 16 and over overwhelmingly (91%) use an automobile or a motorcycle to get to work, with 74 percent driving alone and 17 percent carpooling. Only Indio, Ontario, Rialto, and San Bernardino have significantly higher shares of carpooling. The overall share of public transit ridership in the Inland Empire is 2 percent. In Ontario and San Bernardino, 3 percent of their workforce population utilizes public transit. Workers who walk, bicycle or work at home comprise an average of 6 percent of the region's workforce and 1 percent uses some other means.

Exhibit 13: 2008 Estimate of Workers Age 16+ Transportation Mode to Work

	2008 Estimate	Auto or Motorcycle			Public Transit	Walk, Bicycle, Work At Home	Other Means
		Total	Drive Alone	Car Pool			
Inland Empire	1,690,066	91%	74%	17%	2%	6%	1%
Apple Valley	27,184	93%	77%	16%	1%	6%	1%
Chino	33,239	92%	75%	17%	1%	6%	1%
Fontana	69,427	93%	74%	19%	2%	3%	1%
Hemet	20,338	90%	74%	16%	1%	7%	1%
Hesperia	32,882	93%	75%	18%	1%	5%	1%
Indio	31,345	91%	67%	24%	2%	6%	1%
Moreno Valley	79,983	93%	74%	19%	2%	4%	1%
Ontario	72,649	92%	70%	22%	3%	4%	1%
Redlands	34,555	91%	78%	13%	1%	8%	0%
Rialto	36,789	93%	73%	20%	2%	4%	1%
San Bernardino	68,696	90%	70%	20%	3%	6%	1%
Victorville	38,364	93%	74%	19%	1%	5%	1%

Source: U.S. Census, Claritas 2008 Demographic Update

Travel time for workers aged 16 and above is shown in Exhibit 13. 57 percent of the region's workers travel less than 30 minutes to work, 18 percent travel between 30 and 44 minutes, and 6 percent travel 45 to 59 minutes, and 16 percent travel over one hour to work.

Over one-fifth of workers travel 60 minutes or more to work in the cities of Fontana, Hesperia, and Victorville, however, Indio has significant of percentage of workers (76.2%) traveling less than 30 minutes to work and thus has only 3.2% of workers traveling 60 or more minutes.

Exhibit 14: 2008 Estimate of Workers Age 16+ Travel Time to Work

	2008 Estimate	< 15 minutes	15-29 minutes	30-44 minutes	45-59 minutes	60 minutes or more
Inland Empire	1,629,956	25%	32%	18%	6%	16%
Apple Valley	25,991	26%	37%	11%	8%	19%
Chino	32,284	23%	31%	19%	10%	17%
Fontana	67,900	16%	36%	20%	8%	20%
Hemet	19,726	37%	23%	17%	8%	15%
Hesperia	31,540	21%	28%	14%	15%	22%
Indio	30,399	28%	48%	18%	2%	3%
Moreno Valley	77,543	19%	29%	24%	8%	19%
Ontario	71,041	24%	36%	17%	8%	15%
Redlands	33,570	37%	39%	12%	4%	9%
Rialto	35,892	15%	38%	21%	8%	18%
San Bernardino	66,808	25%	41%	19%	6%	11%
Victorville	37,185	29%	26%	12%	12%	21%

Source: U.S. Census, Claritas 2008 Demographic Update

I. Employment and Occupation Profile

The Inland Empire's labor force is employed in a mix of white collar, blue collar, and service sector occupations. According to 2008 Claritas estimates more than half of the 1,713,338 civilian labor force (population age 16+) in the Inland Empire is engaged in white collar occupations, as shown in Exhibit 14. With 69 percent, Redlands has highest percentage of population working in white collar occupations. In cities, the proportion of blue collar workers ranged from 16 percent in Redlands to 75 percent in Indio. The share of service sector and farm jobs was highest in Hemet, with more than 34 percent of all jobs in the city.

Exhibit 15 further breaks out blue collar and white collar occupations. The leading category of white collar occupations in the Inland Empire is Sales and Office (27.2%) followed by Professional and Related Occupations (16.7%). The leading category of white collar occupations is Production, Transportation and Material Moving (15.4%). Farming, Fishing and Forestry with only 1.1% has the least percentage of civilian employment.

Among eligible cities, Redlands has the highest number of jobs in Professional and Related Occupations (32%). Sales and office jobs are highest in Moreno Valley (30.6%); Construction, Extraction, and Maintenance jobs are the highest in Hesperia (16.8%); Management, Business, and Financial Operations jobs are highest in Chino (13.8%) while Ontario has highest number of jobs in Production, Transportation, and Material Moving (23.7%).

Exhibit 15: 2008 Estimate of Civilian Population by Occupation Classification

	2008 Estimate	Blue Collar	White Collar	Service and Farm
Inland Empire	1,713,338	27%	55%	18%
Apple Valley	27,779	26%	58%	16%
Chino	33,878	27%	57%	15%
Fontana	71,342	34%	51%	15%
Hemet	32,091	25%	41%	34%
Hesperia	33,720	37%	47%	15%
Indio	20,912	75%	25%	25%
Moreno Valley	81,936	29%	56%	15%
Ontario	74,416	35%	48%	17%
Redlands	35,275	16%	69%	14%
Rialto	37,849	35%	49%	16%
San Bernardino	70,591	30%	50%	20%
Victorville	38,960	28%	53%	19%

Source: U.S. Census, Claritas 2008 Demographic Update

Exhibit 16: 2008 Estimate of Employed Civilian Population Age 16+ by Occupation

	2008 Estimate	Management, Business, and Financial Operations	Professional and Related Occupations	Service	Sales and Office	Farming, Fishing, and Forestry	Construction, Extraction and Maintenance	Production, Transportation and Material Moving
Inland Empire	1,713,338	12%	17%	17%	27%	1%	11%	15%
Apple Valley	27,779	12%	20%	15%	27%	0%	12%	14%
Chino	33,878	14%	15%	14%	29%	1%	9%	18%
Fontana	71,342	9%	13%	14%	29%	0%	11%	23%
Hemet	20,912	8%	15%	20%	27%	1%	12%	16%
Hesperia	33,720	8%	13%	15%	26%	0%	17%	20%
Indio	32,091	7%	11%	29%	23%	5%	15%	10%
Moreno Valley	81,936	10%	16%	15%	31%	0%	11%	17%
Ontario	74,416	10%	11%	15%	27%	2%	11%	24%
Redlands	35,275	14%	32%	14%	24%	0%	7%	9%
Rialto	37,849	8%	12%	16%	29%	0%	11%	23%
San Bernardino	70,591	8%	15%	20%	27%	0%	12%	18%
Victorville	38,960	10%	16%	19%	27%	0%	12%	16%

Source: U.S. Census, Claritas 2008 Demographic Update

J. Housing

Owner-occupied housing dominates the landscape of the Inland Empire as shown in Exhibit 16, only 32 percent of the housing units are renter occupied. Among study cities, owner-occupied housing ranges from 52 percent in the City of San Bernardino to 72 percent in Hesperia and Moreno Valley. Cities like San Bernardino and Ontario are almost evenly split between renter- and owner-occupied housing.

Exhibit 17: 2008 Estimate of Occupied Housing Units by Tenure

Source: U.S. Census, Claritas 2008 Demographic Update

As shown in Exhibit 17, low density single family housing dominates Inland Empire with two-thirds of the housing (65.8%) single-family detached units. Single-family detached units range from 41 percent in Hemet to 83 percent in Moreno Valley. The Inland Empire has only 18 percent of structures with multiple units (2 units and above) and in comparison, the majority of the studied cities have a higher percentage of structures with multiple units. Multiple units range from a low of 12 percent in Moreno Valley to 30 percent in the City of San Bernardino. Mobile Homes or Trailer forms a significant part of the housing units in the cities of Hemet and Indio with 29 percent and 17 percent respectively. Boats, Recreational Vehicles, and Vans provide another 4 percent of the housing units in the city of Hemet.

Exhibit 18: 2008 Estimate of Housing Units by Units in Structure

	2008 Estimate	1 Unit Attached	1 Unit Detached	2 Units	3 to 19 Units	20 to 49 Units	50 or more Units	Mobile Home or Trailer	Boat, RV, Van etc.
Inland Empire	1,465,832	6%	66%	1%	10%	2%	5%	10%	1%
Apple Valley	26,511	4%	74%	2%	14%	1%	0%	5%	0%
Chino	20,650	5%	71%	1%	8%	2%	9%	3%	0%
Fontana	47,229	3%	76%	1%	9%	3%	7%	2%	0%
Hemet	35,053	5%	41%	1%	12%	2%	5%	28%	4%
Hesperia	29,254	2%	80%	2%	7%	1%	2%	5%	1%
Indio	29,200	7%	46%	1%	14%	2%	9%	16%	3%
Moreno Valley	53,954	2%	83%	1%	6%	1%	4%	3%	0%
Ontario	49,107	8%	58%	2%	17%	4%	8%	4%	0%
Redlands	27,432	4%	64%	2%	16%	2%	8%	4%	0%
Rialto	26,958	2%	71%	1%	11%	2%	7%	6%	0%
San Bernardino	64,916	4%	58%	2%	16%	4%	9%	7%	0%
Victorville	35,831	2%	72%	2%	11%	1%	6%	7%	0%

Source: U.S. Census, Claritas 2008 Demographic Update

Exhibit 19: 2008 Estimate of Housing Units by Year Structure Built

	2008 Estimate	1999 to 2008	1995 to 1998	1990 to 1994	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1940 to 1949	1939 or Earlier
Inland Empire	1,465,832	23%	5%	9%	23%	16%	10%	8%	3%	3%
Apple Valley	26,511	27%	4%	11%	33%	14%	7%	4%	1%	1%
Chino	20,650	16%	3%	7%	22%	29%	11%	8%	2%	1%
Fontana	47,229	30%	7%	10%	26%	11%	7%	6%	3%	1%
Hemet	35,053	19%	3%	9%	24%	25%	12%	4%	1%	2%
Hesperia	29,254	29%	4%	11%	31%	16%	5%	4%	0%	0%
Indio	29,200	45%	6%	7%	14%	10%	9%	6%	1%	1%
Moreno Valley	53,954	25%	3%	11%	44%	10%	4%	2%	1%	0%
Ontario	49,107	13%	3%	6%	23%	20%	12%	14%	6%	4%
Redlands	27,432	12%	1%	5%	21%	20%	14%	12%	4%	10%
Rialto	26,958	9%	4%	10%	33%	19%	11%	11%	2%	1%
San Bernardino	64,916	9%	2%	6%	18%	16%	15%	18%	9%	7%
Victorville	35,831	39%	5%	15%	23%	8%	5%	3%	1%	1%

Source: U.S. Census, Claritas 2008 Demographic Update

As already noted in household and population growth, the region has seen significant growth in the last decade as is reflected in the number of housing units built since 1999 in Exhibit 18.

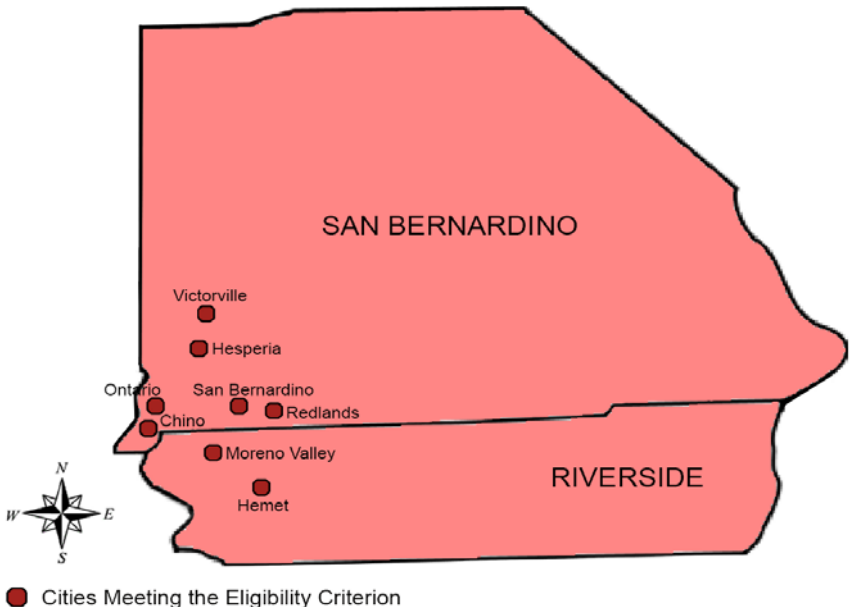
K. EDA Eligibility

According to the EDA Reform Act of 1998, there are three basic distress factors that determine the eligibility of an area for EDA assistance - high unemployment, low per capita income or "special needs". The following section identifies areas that are eligible for EDA assistance under the first two criteria.

Unemployment Rate: The EDA uses unemployment rate to determine area eligibility. To qualify for assistance, the area's unemployment rate should be at least 1% greater than that of the U.S. national average. According to 2006 American Community Survey (ACS), the national average unemployment rate was 6.4 percent. Hence, to qualify for EDA assistance under the high unemployment criterion, the unemployment rate of the area should be at least 7.4 percent. Exhibit 21 shows that Chino, Hemet, Hesperia, Moreno Valley, Ontario, Redlands, San Bernardino, and Victorville qualify for EDA assistance based on the unemployment criterion.

Data for cities with population less than 65,000 is not available from ACS, so Bureau of Labor Statistics data would be used to determine eligibility for smaller cities that have a project they'd like to propose.

Exhibit 20: Map of Qualified Cities under the Unemployment Rate Criterion

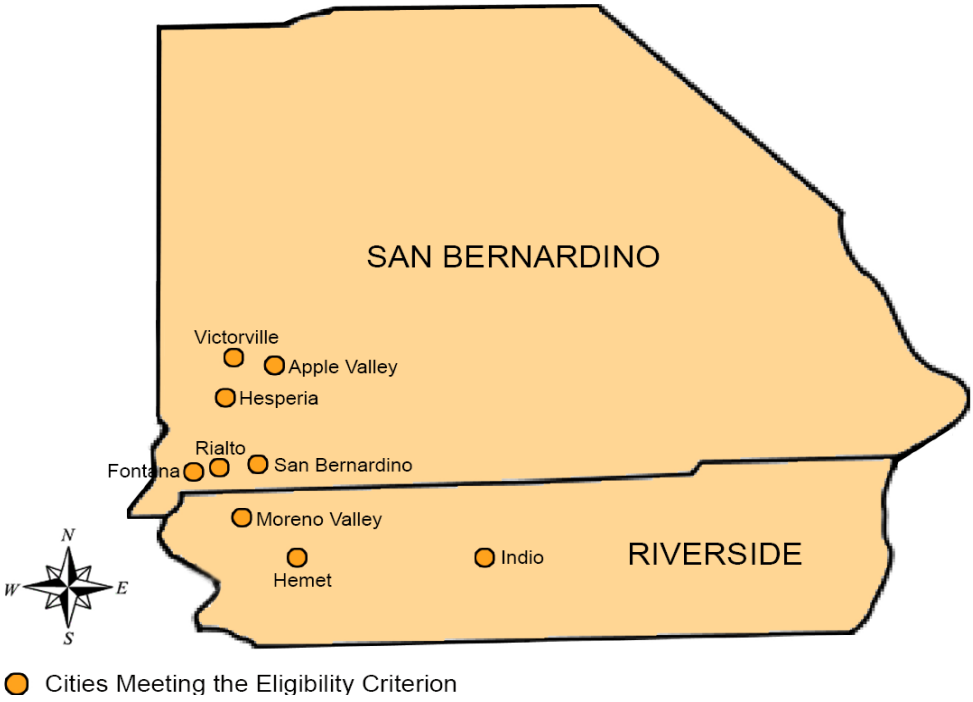


Source: 2006 American Community Survey (ACS), U.S. Census Bureau

Per Capita Income: The EDA uses per capita income to determine area eligibility. To qualify for federal assistance, an area's per capita income should be 80% or below the national per capita income. We have analyzed area eligibility for the region based on the most recent data from the 2006 American Community Survey (ACS). According to 2006 ACS, the national per capita income was $25,267. Thus the criterion for per capita income establishes a threshold of $20,214 as the maximum to qualify for assistance from EDA. An area with per capita income greater than this would not qualify for EDA assistance under this low-income criterion. Exhibit 20 shows that Apple Valley, Fontana, Hemet, Hesperia, Indio, Moreno Valley, Rialto, San Bernardino, and Victorville qualify under the per capita income criterion.

Data for cities with population less than 65,000 is not available from ACS, so 2000 census data would be used to determine eligibility for smaller cities or communities within larger cities or unincorporated portions of the counties that have a project they'd like to propose.

Exhibit 21: Map of Qualified Cities under the Per Capita Income Criterion



Source: 2006 American Community Survey (ACS), U.S. Census Bureau

II. Analysis of Economic Development Problems and Opportunities

The analysis provided below identifies economic development problems and opportunities for the Inland Empire. The region has reached a critical moment requiring serious rethinking of its future with a focus on the relationship between the region's and Southern California's economy and the impact on its quality of life. The Inland Empire has an economic vision for its future as the Green Valley, that the Inland Empire will be the center of green technologies with balanced economic and community development. The creation of a CEDS is only one step in the process of realizing the job and economic growth of the new green technology industries. The Inland Empire must plan for growth and development by capitalizing on its existing strengths, assets, and many opportunities while overcoming its weaknesses and potential threats.

II. A. Problems

A.1 Educational attainment below that of high-value, high-growth regions: One of the major weaknesses is the low level of educational attainment in the Inland Empire. One-quarter of the population (age 25+) has less than a high school diploma. The labor force, although large, is relatively less educated and local jobs are dominated by low-skill and low-paying retail jobs. Lower paying jobs imply lower disposable income levels for the household. Approximately one-fifth of households earn less than $25,000 per annum. In addition, low student academic performance and degree completion levels create a future labor force that will be unprepared for the job market, uncompetitive in the global market, and limited to existing low-skilled and low-paying jobs. Such an environment prevents new business investment in industries that require higher skills and higher-paying jobs. This not only affects the living standards of the labor force, but also, inhibits high-technology firms from considering locating in parts of the region. Consequently, we observe a high concentration of poverty and unemployment that create poor living conditions, as well as stress on local social services.

Educational attainment is traditionally regarded as a key to economic prosperity and it has been well established that there is a strong relationship between higher educational attainment, higher income, and higher economic productivity. To attain momentum, training programs will be needed in alternative energy & related green technology skills within San Bernardino & Riverside Counties.

A.2 Jobs-Housing Imbalance: The Southern California Association of Governments began developing a vision for the future of Southern California in 2001. One of the areas of concern was the traffic congestion and resulting air pollution generated by commuters. Their analysis showed that a balance between jobs and housing within a region results in reduced driving times, reduced congestion, fewer air emissions from automobiles, lower costs to commuters, greater family stability, and higher quality of life. When combined with more compact land use, it can also result in lower costs to businesses and lower public expenditures on facilities and services.

In Southern California, the jobs-rich areas are located primarily along the coast. Hence, Los Angeles and Orange Counties are jobs-rich and the adjacent Inland Empire counties are housing-rich, housing many commuters working in the jobs-rich areas. Jobs/housing ratios are forecast to increase in the western portion of the Inland Empire by 2025, but much of the Inland Empire is forecast to remain housing rich.

They also observed that high-tech "New Economy" jobs and venture capital investments that have a strong tendency to cluster at culturally- and amenity-rich urban locations are powering the job growth in coastal areas. Their recommendations included promoting wealth-generating, high paying, "New Economy" jobs in the Inland Empire. This would enable Inland Empire residents to find comparable work to the western regions and would shorten commutes of Inland Empire residents.

The proposed jobs-creation strategies included:

- Investments in public education
- Development of high technology business parks and incubation centers
- Fiber optic cable investments
- Airport investment and promotion

A.3 Competition from Coastal Communities: The Center for Continuing Study of the California Economy (CCSCE), an independent, private economic research organization specializing in the analysis and study of California, argues that the inland regions may have the fastest growth but the future of the California economy will be written on the coast. In February 2007, they published a brief analysis of the California Budget Project report that California jobs have shifted inland over the past 15 years titled, "The Future of the California Economy is On the Coast". They point out that the coastal regions (Southern California, San Diego, and Bay Area) house most of California's residents, 75% of the state's economy, and the development of most new industries in California.

They argue that Riverside and San Bernardino Counties should be considered coastal communities and included in the Southern California coastal region, just like Alameda and Contra Costa Counties are included in the Bay Area coastal region. They argue, "While these counties (Riverside and San Bernardino) are developing many county-specific initiatives, it is helpful in broader policy discussions to remember that they are connected to what goes on in the rest of the region.[iv]"

The Inland Empire is a part of the Ventura, Los Angeles, Orange County, Southern California economy and saw 25% of California job growth between 1990 and 2005, however, most would argue that it is not yet a full participant in the development of new industries. Investment in University research into technology development will be needed to compete in the arena of new industry development.

A.4 Poor Perception/Lack of Identity: The Inland Empire suffers from poor perception and a lack of pride in its identity. Business location decisions often hinge on the attractiveness of a location to the CEO or other decision-makers.

The region is predominantly low density residential with a mix of retail, office, and industrial uses. In general, the Inland Empire is home to single-family neighborhoods indistinct in style and character or aesthetic appeal. The preponderance of gated communities, their inward orientation expressing exclusion instead of inclusion, and a lack of connectivity among neighborhoods creates sterile environments devoid of street life.

The suburban character combined with strong auto-orientation and large amounts of land devoted to surface parking creates a pedestrian unfriendly environment. Fast moving traffic in the commercial corridors, vacant lots, and curb cuts do little to promote walkability. Commercial corridors lack character and exhibit a hodge-podge of uses without any aesthetic considerations. The inordinate amount of warehousing and strip retail contributes to an unseemly environment as well.

As described by several participants, the Inland Empire is like Orange County was when Los Angeles County was the only place to find cultural activities. There is no well-developed sense of place, uniqueness or identity that sets the Inland Empire apart. Poor perception of the region, in general, promotes negative stereotypes, which can inhibit new investment.

***A.5 Quality of Jobs*:** As a nation, we are experiencing a decline in manufacturing jobs and suburbs have not been spared either. This follows a national trend of job decline in manufacturing and increase in services. The reasons for loss of manufacturing jobs include increased technological productivity, cheaper labor and production costs oversees, shortage of skilled workers, and lower federal R&D spending in engineering and physical sciences. Replacing these manufacturing jobs are transportation/logistics and warehousing jobs which have become significant in the Inland Empire and like retail and service sector pay lower than white collar jobs.

If the transportation and logistics infrastructure were to support exports of value added goods manufactured in the Inland Empire out to the rest of the world, it would generate economic surplus and wealth. It appears, however, that infrastructure is predominantly is being used to transport products through Inland Region from where it was produced to some market/point of sale elsewhere. This ends up requiring the Inland Region to maintain a very expensive infrastructure for accommodating transient products that bring no tax revenue and fill up valuable real estate with very low employment utilization rates.

A.6 Fewer Resources: The larger question is to what extent can Inland Region take advantage of its location, entrepreneurial pool of firms and individuals, and capitalize on the new knowledge-based and information-based technology jobs. Clearly, the region faces many outside pressures that could negatively impact its economic development efforts. The relocation of local businesses to competitive locations, both domestic and abroad, is a threat to the areas' low-skilled workers. The large low-skill labor force is highly dispensable and likely to be hit the hardest in tough times.

Federal and state government has decreased spending for many social programs including community and economic development. Thus, current and future economic development efforts will have to find new and innovative funding sources or public-private partnerships to achieve

their objectives. The lack of other resources, such as water and energy, due to potential infrastructure, market, or legal limitations could also inhibit the future economic growth and development of the region.

A.7 Environmental Justice Issues: The Inland Empire has experienced rapid population growth during the last decade and is expected to grow at a fast rate in the future as well. At the same time, the region has become a hub for transportation and logistics businesses. The growing demands of housing people are increasingly in conflict with existing and future demand for industrial and warehousing uses and trucking-related operations.

Potentially contaminated sites from heavy industry and defense-related uses are still prevalent in the region. These industries negatively impact the environment and contribute to air- and water-pollution, as well as ground-water contamination that can adversely affect the health of area residents. Housing people next to heavy industries, processing plants, airports, railroads, freeways, and trucking or warehousing operations exposes residents to air, water, and sound pollution. Much of the burden is borne by the working poor or the disenfranchised that have little say in the system. The presence of toxic chemicals or substances in proximity to residential areas poses not only environmental but protracted health risks.

A.8 Natural Disasters: Natural disasters such as earthquakes, fires, and floods are potential threats that can negatively impact the Inland Empire's economy. The region is located on two of the state's most active earthquake faults, the San Andreas and San Jacinto. Seasonal fires, floods, and landslides are quite common as have been experienced in the recent years. Clearly, pre-disaster planning and hazard mitigation is critical to minimizing damage costs. Potential terrorist activity and security threats to infrastructure cannot be overlooked either. Such threats can have a devastating and debilitating effect on the economy, hence, adequate plans should be in place to assess and counter them.

II. B. Opportunities

B.1 Intellectual Capital: The Inland Empire is home to 17 colleges and universities. In response to the dramatic population growth in the Inland Empire the largest colleges and universities are planning for growth. As they identify areas for growth and hiring of new faculty, the Green Valley Initiative has an opportunity to develop a Green Brain Trust through faculty appointments at the University of California at Riverside, California State University San Bernardino, and Cal Poly Pomona that will fuel the green technology.

Highlights of the programs and capacity existing at these institutions of higher learning illustrate the strength of the local intellectual capital that should be nurtured and guided to address the challenges of energy efficiency and clean energy alternatives as well as other green technologies.

Inland Empire Center for Entrepreneurship (IECE)
IECE is a multifaceted Center located in the College of Business and Public Administration at California State University, San Bernardino (CSUSB), whose mission is to advance the study and practice of the entrepreneurial spirit through:

- Entrepreneurship education
- Student internships
- Entrepreneurial training
- Business assistance programs
- Collaborative community partnerships
- Entrepreneurial research

IECE achieves its mission by offering innovative programs and services to students at CSUSB and to small businesses, entrepreneurs, and non-profit entrepreneurs in the Inland Empire. In addition, IECE serves as the breeding ground for entrepreneurial ideas and programs being developed through the various departments within the College of Business and Public Administration (CBPA).

Center for Environmental Research & Technology (CE-CERT)
CE-CERT is a model for partnerships among industry, government, and academia, located in the Bourns College of Engineering at the University of California, Riverside, whose goals are to become a recognized leader in environmental education, a collaborator with industry and government to improve the technical basis for regulations and policy, a creative source of new technology, and a contributor to a better understanding of the environment.

Inside the CE-CERT laboratories, engineers and scientists explore a wide-ranging research agenda that encompasses:

- Developing autonomous vehicles and transportation systems for the future
- Converting biomass such as yard waste into vehicle fuel
- Measuring air pollutants and modeling how they react in the atmosphere
- Developing alternative-fueled engines and vehicles
- Evaluating clean and renewable energy sources
- Manufacturing commercial products that will improve our quality of life

Master of Science degree in Regenerative Studies (MSRS)
The John T. Lyle Center for Regenerative Studies at Cal Poly Pomona University offers a unique Master of Science degree in Regenerative Studies (MSRS) that prepares students to find successful solutions to environmental problems in the 21st century. The program prepares individuals for Ph.D. programs in environmental fields, or professional careers in public agencies and private non-profit organization, and in business, education, environmental design, engineering, planning, resource management, and other related fields.

A key feature of the program is its integration of specialized disciplinary knowledge from a variety of university programs - agriculture, physical sciences, environmental design, business, engineering, social sciences and humanities - into a multidisciplinary research, and practice-oriented core.

B.2 Alternative Energy Industry: The Inland Empire is home to many alternative energy producers along with hundreds of jobs from service to installation, and more importantly has the room to expand. Home to the largest thermal solar farm, wind farms that produce enough energy to power Palm Springs and the entire Coachella Valley, and an innovative project to use “cow

power" to generate electricity, the Inland Empire has many examples of early adoption of new technologies in energy generation.

Kramer Junction Solar Electric Generating System (SEGS)
Kramer Junction SEGS consists of five 33-Megawatt solar thermal electric generating facilities located in the Mojave Desert at Kramer Junction, California. These utility-scale power plants were designed and developed in the mid-1980's by LUZ Industries and have been upgraded by Solel Solar Systems, improving efficiency. They are now expected to last until 2022.

The Kramer Junction Company has an agreement to sell power to Southern California Edison. These are "peaking" facilities, meaning they provide over 80% of their output during the highest demand times, during midday when businesses and homes are using the greatest amount of energy.

San Gorgonio Pass Wind Farm
Located in the San Gorgonio Mountain Pass in the San Bernardino Mountains in Palm Springs, the San Gorgonio Pass Wind Farm was the second highest energy producing region in California in 2005, vying with the Altamont Pass Wind Farm and trailing the Tehachapi Pass Wind Farm. As of March 2008, San Gorgonio had 3,215 turbines producing 611 megawatts of electricity.

California had the second largest installed capacity from wind turbines in 2006 at 2,361 megawatts, just behind Texas. California was an early adopter of wind power and ranks 17th out of the top 20 states in potential power.

The U.S. Department of Energy released a report on the future of wind power in America on May 12, 2008, titled, 20% Wind Energy by 2030: Increasing Wind Energy's Contribution to U.S. Electricity Supply. As the title suggests, the report proposes how wind power could become a major contributor to America's electricity supply over the next three decades and contrasts that future with one in which no new investment is made.

Inland Empire Utility Agency (IEUA): Anaerobic Digester
IEUA is a public water and wastewater agency, supplying imported and recycled water and disposing of wastewater for six cities and two water districts, serving 800,000 people. As a part of these activities, IEUA operates with the Los Angeles County Sanitation Districts, the largest enclosed composter in the state for processing biosolids resulting in a byproduct of 180 tons of Class B biosolids per day.

As a part of the utility's strategic planning process for protection of the Chino Subbasin of the Upper Santa Ana Valley Groundwater Basin, the utility was faced with impacted water quality worsening due to dairy operations. Their innovative solution was to develop an anaerobic digester that would combine the manure and wastewater from the dairies with the biosolids from their wastewater treatment plants to produce methane gas for energy production. They planned for a two phase approach resulting in 3,000 kilowatts of energy at the end of Phase II in 2007.

This project resulted in the following firsts in California:

- Constructed first centralized digester using a combination of manure and biosolids

- Generated first renewable energy credits from "cow power"
- Sold first green-house gas credits from "cow power"
- Sponsored first legislation to authorize "net metering" from "cow power" and was the first public agency to use the program

The IEUA was also the first public agency in the nation to construct a Platinum LEED-rated energy efficient headquarters.

B.3 International Trade: The region has a well-developed multimodal transportation system consisting of freeways, airports, and railways which support the demand to move goods and people quickly and efficiently. Without another vision, the Inland Empire would continue on as the logistics capital of Southern California. It can however, become a center for international trade of green technology.

The Inland Valley Development Agency (IVDA), a joint powers authority, is responsible for the redevelopment of the non-aviation portion of the former Norton Air Force Base. The site receives California Enterprise Zone incentives as a Local Agency Military Base Recovery Area (LAMBRA) and has a U. S. Customs office on site. It could become the heart of the Green Valley Initiative Global Green Technology Trade Center.

B.4 California Solar Initiative: At the direction of Governor Schwarzenegger, the California Solar Initiative was approved by the California Public Utilities Commission (CPUC) on January 12, 2006. The initiative creates a $3.3 billion ten-year program to put solar on a million roofs in the state, thus encouraging the growth of the solar industry.

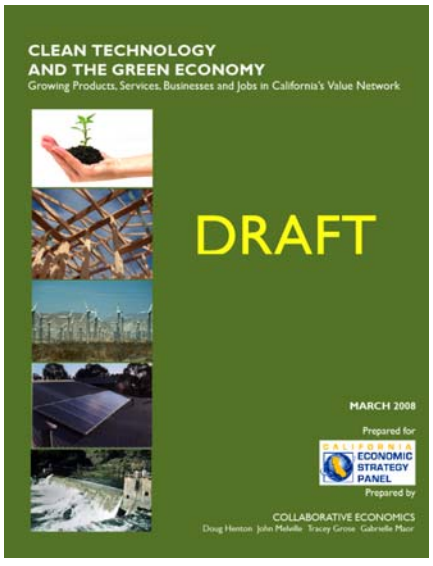
- This program changes the way the state's renewable energy incentives and rebates will be managed. The CPUC will oversee a program to provide incentives for **existing** residential customers and for all non-residential customers.
- The California Energy Commission will manage a 10-year, $400 million program to encourage solar in **new home construction**, known as the **New Solar Homes Partnership** (NSHP).
    - The Energy Commission will work with builders and developers to incorporate high levels of energy efficiency and high-performing solar systems to help create a self-sustaining solar market where home buyers demand energy efficient, solar homes. The NSHP will specifically target single family, low-income, and multi-family housing markets.

B.5 Toward a Green Economy: California is often touted as a bellwether state, a leader in innovation. Most people, when asked, would also point to California as a leader in green technology adoption. What was not quantified until recently is California's role in green technology development. Two reports have been published in 2008 that begin to describe the greening of the California economy. The first is the 2008 inaugural issue of the *California Green Innovation Index*. The second which is still in draft form is *Clean Technology and the Green Economy: Growing Products, Services, Businesses and Jobs in California's Value Network.*

Next 10, an independent, nonpartisan, nonprofit organization has launched the *California Green Innovation Index* to track the state's green innovation as well as economic and environmental performance within the context of the landmark California Global Warming Solutions Act (AB 32). The Index analyzes key indicators including energy consumption and efficiency, economic growth and carbon emissions, to better understand the role green innovation plays in achieving two goals critical to California's future: 1) reducing the absolute level of the greenhouse gas emissions that cause global warming, and 2) increasing the state's gross domestic product, which is the basis for our economic vitality.[v]

The bipartisan California Economic Strategy Panel was established in 1993 to develop an overall economic vision and strategy to guide statewide public policy. The Panel engages in an objective and collaborative biennial planning process that examines economic regions, industry clusters, and cross-regional economic issues. The California Regional Economies Project (CRE Project) is currently the lead mechanism for these efforts.[vi] *Clean Technology and the Green Economy: Growing Products, Services, Businesses and Jobs in California's Value Network* is a monograph in a series of studies they have produced. The monograph's primary objective is to help define California's green economy and provide state government policy leaders with answers to the questions as to what makes up the green economy, what jobs are being created, and what economic policy issues need to be addressed.[vii]

The preface to the Clean Technology monograph identifies several private and public sector actions that are driving interest in clean technology and the green economy. The venture capital community is heavily investing in clean technologies and policy makers enacted AB 32 as mentioned above, and Governor Schwarzenegger signed Executive Order # S-3-05 on June 1, 2005 which established greenhouse gas emissions targets and the Climate Action Team to implement global warming emission reduction programs and report on the progress made toward meeting the statewide greenhouse gas targets.



These observers of innovation in clean and green technology feel that California is becoming a leader and that these industries have the power to transform the state's economy. The role of the California Economic Strategy Panel in this process is to engage the leaders contributing to this economic transformation and make recommendations to policy-makers on how to facilitate growth and competitiveness of the emerging green economy.

The Green Innovation Index concludes that California benefited both economically and environmentally from a first wave of green innovation as a result of increasing energy efficiency since the 1970s. The following factors are identified that are setting the stage for a new wave of green innovation: the awareness that global warming is an urgent challenge to be addressed, the high adoption rate of existing green products and practices such as CLF bulbs, energy star appliances, hybrid vehicles and solar power systems, and that California continues to grow its share of U.S. patents in solar energy, wind, and battery technology.

B.6 Need for Investment: In order to catch this second wave of innovation and ride it to an economic boom, the following recommendations are made in the California Green Innovation Index[viii]:

- California will need to rapidly increase its pace of change with breakthroughs in energy efficiency and the adoption of clean energy alternatives.
- California will need to continue to invest in research and commercialization that promotes the creation and adoption of clean energy.

To join in California's economic boom, the Inland Empire will need to position itself to participate in the research and the manufacturing of breakthrough products in energy efficiency and clean energy alternatives. This requires investment in research and commercialization.

There is wide public support for actions that address global warming and more and more businesses are becoming members of the California Climate Action Registry which are seen as positive indicators for success. Another indicator is that green establishments and jobs are increasing in the state. The largest gains can be seen in energy generation and energy efficiency.

The Green Valley Initiative has initiated the process of positioning the Inland Empire to capitalize on this economic boom by bringing together many of the local leaders who can educate the community about the urgency of addressing the causes of global warming, promote the adoption of existing green products and practices and support the investment of research and development of U.S. patents in solar energy, wind, and battery technology.

B.7 Green Trends: Many organizations are studying the direction of green innovation today. The world's largest nonprofit independent research and development organization, Battelle, assembled an expert energy and environmental focus group of scientists and engineers and surveyed many others from among their 20,400 employees in more than 120 locations worldwide, including seven national laboratories which Battelle manages or co-manages for the U.S. Department of Energy and the U.S. Department of Homeland Security.

The topic question was "What will likely be the most important Green trends worldwide from 2008 to the year 2020?" "Green" was broadly defined as environmentally neutral or beneficial and included air and water quality, waste management, and global climate change. "Trends" included any patterns existing or expected to exist in the future in science, technology, economics, demographics, social behaviors, public policy and regulation.[ix] The following list was published on April 21, 2008.

1. Increased Use of Renewable and Sustainable Fuels for Electric Power Generation

- The increased demand for electricity world-wide will drive the increase in the use of green fuels such as wind power, solar power, fuel cells, biofuel, and clean coal technologies.

2. Water Resource Management, Including Reuse and Recycling of Water
   - The demand for water world-wide will require increased conservation, desalination, technologies to improve the quality and supply of fresh water, including use of treated graywater.
3. Carbon Regulations and Policy
   - The threat of global warming will likely result in the U.S. joining with other countries to limit and reduce carbon use through increased vehicle emissions limits, taxes on carbon emissions, carbon markets, and development of cleaner, advanced energy systems.
4. Green is Good Business
   - Green technologies can reduce industrial waste, energy use, and cost and lead to sustainability for corporations, especially if green labeling comes to pass in the U.S. as it has in Europe.
5. The Greening of Transportation
   - With a third of greenhouse gas emissions coming from vehicles, renewable and sustainable fuels for automobiles and trucks will be important from ethanol to biofuel, hybrid drive systems, "plug-in" electric vehicles and fuel cell cars. Fuel cells and advanced batteries are likely to be used as auxiliary power units and technologies may emerge to capture and store the carbon emissions.
6. Increasing Availability of Green Products and Services
   - On the demand side, consumers will drive innovation as they become more educated. Products will be designed with a plan for disposal that reduces greenhouse gas emissions, waste effluents, and packaging.
7. A Systems Approach to Environmental Analysis
   - Products, services, and processes will be evaluated at the macro-system level so that the side-effects are taken into account such as the impact of rising corn prices on food costs due to increased use for ethanol. Life-cycle analysis is one such tool.
8. Increasing impact of the world's growing urban population on resources
   - In 2000 the global population was 6 billion and by 2020 it expected to be 7.6 billion. This will increase the stress on basic services for electricity and water in urban centers where the population is concentrated as well as the local ecosystem.
9. Information and Communication Technologies (ICT) Used in Place of Traveling
   - As these technologies become more widely adopted alternatives, telecommuting, video-conferencing, email, and Internet shopping could reduce automobile use thereby reducing gasoline consumption and greenhouse emissions considerably.
10. Green Buildings
    - Green building codes are likely to become widely adopted resulting in the design of buildings that integrate and optimize the heating, cooling, lighting, and water systems, incorporating alternative energy systems such as solar power, fuel cells, geothermal energy, and possible wind energy, and construction methods will be developed to reduce greenhouse gas emissions.

B8: Green-Collar Jobs: The Apollo Alliance is a coalition of business, labor, environmental, and community leaders working to catalyze a clean energy revolution in America. They began

in 2004 as a response to the 9/11 tragedy by the Center on Wisconsin Strategy and the Institute for America's Future and has grown into an organization with nation-wide impact. Former California Treasurer Phil Angelides recently joined the Apollo Alliance as Chairman the Board after serving for several years on their National Advisory Committee. Their stated mission reads:

> Inspired by the vision and technological achievements of the Apollo space program, we promote policies and initiatives to speed investment in clean energy technology and energy efficiency, put millions of Americans to work in a new generation of well-paid, green collar jobs, and make America a global leader in clean energy products and services.

To properly describe their perspective on Green Collar Jobs, the following passages have been excerpted from, "Green-Collar Jobs in America's Cities: Building Pathways out of Poverty and Careers in the Clean Energy Economy". It is a vision that can be shared by the Green Valley Initiative.

> "Green-collar jobs, as we define them, are well paid, career track jobs that contribute directly to preserving or enhancing environmental quality. Like traditional blue-collar jobs, green-collar jobs range from low-skill, entry-level positions to high-skill, higher-paid jobs, and include opportunities for advancement in both skills and wages.
>
> Green-collar jobs tend to be local because many involve work transforming and upgrading the immediate built and natural environment—work such as retrofitting buildings, installing solar panels, constructing transit lines, and landscaping.
>
> Green-collar jobs are in construction, manufacturing, installation, maintenance, agriculture, and many other sectors of the economy. A number of recent publications describe these jobs in detail. While some green-collar jobs (e.g. wind turbine technician) are in new occupations, most are existing jobs that demand new green economy skills. For example, construction companies building and retrofitting America's cities need workers with traditional construction skills who also have up-to-date training in energy efficiency. And employers doing solar installation need workers with conventional electrical training, in addition to specialized solar skills.
>
> Because the phrase "green-collar job" has been bandied about so much lately, it is important to emphasize once again what we mean—or rather, what we do *not* mean—when we use this term. Put simply, if a job improves the environment, but doesn't provide a family-supporting wage or a career ladder to move low-income workers into higher-skilled occupations, it is not a green-collar job. Such would be the case with workers installing solar panels without job security or proper training, or young people pushing brooms at a green building site without opportunity for training or advancement.
>
> In sum, spurring the creation of green-collar jobs in your community means more than creating short-term work on individual green projects. It means building a sustainable economy, where environmental goals go hand in hand with social and economic goals. It

means embracing visionary policies for your community, mobilizing all of the resources at your disposal to meet those goals, and explicitly working to expand the number of long-term, high-quality green-collar jobs for local residents."[x]

B.9 Inland Empire Tech Coast Angel Network: Ten years ago, that's when a handful of investors from Orange County and Los Angeles met to talk about forming an angel group. From this small group of original investors in 1997 to the present 270 members, Tech Coast Angels has expanded from its Orange County roots and today has networks operating in Santa Barbara, Westlake Village, Los Angeles, San Diego and the Inland Empire.

In these past 10 years they've funded more than 130 startups with $86 million of their own money and attracted venture capital funding that approaches a billion dollars. This level of activity makes them the largest angel group in the country.

- For an entrepreneur, their size and experience means that you are working with people who can make funding happen. They know how to work with small companies and position them for success.

- For a potential member, what every member appreciates is the breadth of experience, both in industry expertise and dealmaking. Whatever startup comes to present, no matter what the industry they represent, there's bound to be someone in the room who knows the industry. That kind of breadth comes from a large and diverse membership. It means that your individual portfolio of startup investments can be highly diversified across several sectors.

B.10 Local Regional Economic Development Corporations: Five local economic development organizations supplement the efforts of city and county economic development staff to improve the economic output of the Inland Empire. A list of these organizations follows with short descriptions of their activities.

Inland Empire Economic Partnership – (http://www.ieep.com/)
The Inland Empire Economic Partnership (IEEP) is the private, non-profit regional economic development organization for the Inland Empire. IEEP's core mission is the expansion and relocation of business to the Inland Empire. A coalition of 180-public and private-sector members partner with IEEP to support the organization and its services. Advancing the goals and objectives that benefit the entire two-county region, the IEEP's mission is to attract, create, expand and retain business in order to increase the region's growth and economic output.

Services offered include:
- Up-to-date access to available real estate (commercial and residential executive housing)
- Coordination and organization of site tours for real estate in the Inland Empire
- Incentives and tax information
- Access to workforce information, hiring, and training
- Demographic and economic data
- Contacts with local government and private industry

Hemet-San Jacinto Valley Economic Development Corporation – (http://www.vedc.com/)
The organization promotes the San Jacinto Valley for business attraction. The selling points are its central location, accessibility via three Interstates and two major state highways, a skilled, eager, and growing workforce, availability of commercial and industrial sites, and total operating costs of approximately 7 percent below the Orange County area – including property taxes, lease rates, and wages.

The Pass Economic Development Association – (http://www.ecopac.org/)
The Pass Economic Development Association (PassEDA) is a unique regional business recruitment and retention organization serving the San Gorgonio Pass communities of Banning, Beaumont, Cabazon, Calimesa, Cherry Valley, Oak Glen, White Water, Yucaipa, and the Morongo Indian Reservation. PassEDA draws upon and coordinates key resources available through state and local government agencies and private sector advisors to foster a positive business climate, promote quality business expansion, and develop a well-qualified workforce.

PassEDA private sector partners include five chambers of commerce, utilities, banks, brokers, investors, educational institutions, manufacturers, and representatives from the hospitality and service industries. Public sector partners include four state legislators, two county supervisors; representatives from four city governments, two county economic development agencies and workforce development boards, and a large federally recognized Indian Tribe.

Economic Development Corporation of Southwest California – (http://www.edc-swrc.org/)
The Economic Development Corporation of Southwest California (EDC) acts as an umbrella organization for Lake Elsinore, Murrieta, Temecula, and portions of unincorporated Riverside County, that pulls together and coordinates the region's many and diverse interests, organizations and constituents to ensure integral participation of the private sector in economic development.

The EDC is committed to:

- Provide a clear and united voice of the EDC's economic development efforts.
- Be the "One Voice" advocate of the public/private sector in pursuit of economic growth.
- Create task forces needed to carry out essential economic development activities.
- Provide and cultivate the leadership necessary to sustain the public/private partnership.
- Reach to the regional community - foster a sense of inclusion.
- Inform, educate and communicate.
- Establish, protect, and reflect high standards of quality economic development.
- Stimulate and assist business growth, expand job opportunities and enhance the competitive position of Southwest California.

Coachella Valley Economic Partnership – (http://cvep.com/)
The Coachella Valley Economic Partnership, popularly known as "CVEP," was established in 1994 as an action-oriented, non-profit corporation dedicated to expanding the economy of the Coachella Valley desert region while maintaining the quality of life for a resort environment. CVEP has devoted attention to strategies of business attraction, expansion and retention during the past decade. Today, CVEP also is focusing attention on planning and nurturing the growth of new industry clusters which include Healthcare, Advanced technologies, Multimedia, Education, and Recreation.

The Coachella Valley encompasses the following communities: Cathedral City, Coachella, Desert hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, Bermuda Dunes, Thousand Palms, and Mecca-Thermal-Oasis.

III. Community and Private Sector Participation

The Green Institute for Village Empowerment sponsored a stakeholders meeting on June 1, 2007. Stakeholders present at the kick-off meeting included supervisors of Riverside and San Bernardino counties and representatives from education, local government, Indian tribes, and business. A follow-on series of public meetings were held in the Inland Empire in the summer and fall of 2007 to discuss area strengths, weaknesses, opportunities and strategies for green technology economic development and to develop the strategies for implementation. Participants included representatives from local non-profits, business owners, educators, economic development professionals, and city and county representatives.

The input from the public meetings and additional feedback received from the Green Valley Initiative Sustainable Economic Development Committee is summarized below.

Strengths

- Intellectual capital at the 17 colleges and universities in the region
- Strong presence of the alternative energy industry from solar to wind to waste-to-energy
- Presence of environment-related industries & technologies
- New green building investment such as:
    - Estimated 60 registered buildings with LEED certification
    - Platinum LEED-certified headquarters for Inland Empire Utility Agency
    - Platinum LEED-certified Western Center for Archeology and Paleontology – first museum certified at this level
    - Solar Power Project in Loma Linda
    - The Frontier Project, a 14,000 square foot demonstration building seeking to attain Platinum LEED certification
    - Lakeshore Plaza, Dos Lagos
- Room for business location & expansion
- Location along primary corridors of international trade
- Close proximity to regions with high-value, high-growth enterprises and venture capital resources
- Base of skilled workers in the region that currently commute to jobs outside the region
- A growing understanding of regional challenges and a willingness to work together to improve the future
- Growing political and social support
- Expanded participation of diverse interests
- High quality of life

Weaknesses

- The perception that going green will increase regulatory costs on businesses, further

hindering their growth
- Lack of coordination between jurisdictions in economic development and land use planning
- Educational attainment below that of high-value, high-growth regions
- Limited focus on inclusion and diversity
- The region has few incentives to offer businesses to attract them compared to other states
- Few resources to overcome the obstacles to entry for start-up green technology companies

Opportunities
- The Green Valley Initiative
- Collaboration among the colleges and universities
- A growing workforce to be trained in the green collar jobs of the future
- Focusing growth in Green Village Developments of walkable mixed-use communities with jobs and housing in close proximity
- Availability of land for expanding companies
- Commercialization technical assistance
- Inland Empire Tech Coast Angel Network

Threats
- Inaction will result in the Silicon Valley and Los Angeles, Orange and San Diego Counties becoming the green innovation centers
- A fragmented vision for the future of the region
- The status quo future as the logistics capital of Southern California
- Water shortage that will limit growth
- Parochial competition among sub-regions
- Perception that there is a lower quality of life available compared to coastal regions
- Perception that California is a high-cost, overly regulated, and unfriendly place to do business
- Perception that "going green" is code for a more costly and contentious business environment

Factors affecting the region's capacity to effectively join in the green economic boom range from education levels of the current workforce and competition from the coastal counties to investment decisions made by the region's leaders. How these factors are strategically addressed will determine whether or not the Green Valley Initiative will become a vibrant part of the Inland Empire's economy.

IV. CEDS Goals and Objectives – Defining Regional Expectations

The economic vision for the Green Valley Initiative is that the Inland Empire will be the center of green technologies with balanced economic and community development. The four goals identified to achieve the vision are to:

Goal 1: Encourage the growth of local green technology businesses.

Goal 2: Attract renewable energy businesses.

Goal 3: Encourage local entrepreneurial efforts through:

1. **Green business development**
2. **Development of green technology incubators, targeted commercialization support, and development of green technology parks**

Goal 4: Encourage local green finance from angel investors and venture capital firms.

OBJECTIVES

The following objectives are designed to achieve the goals and vision outlined for the Green Valley Initiative. To achieve the goals requires:

- Coordinated effort by various stakeholder groups.
- Commitment from elected leaders to support the implementation plan.
- Promotion of the region's strengths and existing green assets.
- Perseverance and focused investment.

What can be done to transform the local economy into a green economy?

Objective #1: Place brand the Green Valley.

Place branding as a tool for economic development is a relatively new idea, but it has quickly become a key strategy in plans for inter-regional competition around the world. New economic realities have changed the rules in regional competition, and place identity is now a priority item in any region's unique competitive advantage.

Place Branding is about Identity, Not Resources
Successful place branding describes much more than infrastructure and resources. Many places (Boston's Route 128 Corridor, or Washington, DC's Dulles Toll Road, for instance) have tried to emulate Silicon Valley, only to find that a high tech office park or new fiber optic cable is not the stuff of a deep, concentrated place brand. In the 21st century, competitive place branding describes not only what a place *has*, but also what it *is*, how that identity is a product of its unique character and history, and most importantly how its identity offers unique advantages in the 21st century economy.

Place Branding is a Process, Not a Product
The process of developing a competitive place brand should be considered as integral to the process of economic development, and not simply as a label attached at the end. The development of economic identity and place identity should be synonymous.

Objective #2: Establish a Green Tech Advocate.

Because resources are limited, coordinating efforts and leveraging investments is important. The economic development staff in each city and county will not become experts in the field of green technology overnight. They are trained in their field but they need a resource to which they can turn to for support. Someone who can attend conferences and promote the region to green technology companies, who can stay informed about trends in the solar energy industry, who will know if the solar company looking for development assistance is using the most advanced technology and is predicted to grow and hire many local residents or not. This role is being called a Green Tech Advocate.

The Green Tech Advocate would facilitate introductions between companies interested in exploring the Inland Empire for their operations and the city or county economic development staff with potential locations. They would be available to the local staff for technical assistance and they would work with strategic partners to promote entrepreneurial activity in green technology industries.

Objective #3: Promote the purchase of goods and services from local green technology businesses.

If green technology is to flourish, it needs a market. Demand is growing for green technologies. Businesses are offering greener products and providing services in helping businesses and consumers alike to become more resource efficient. Purchasing goods and services from local green technology businesses supports the growth of the local economy.

Local businesses produce local income, jobs, and tax receipts. They are more likely to utilize local ads, banks, and other services. They are more accountable to the local community and as they grow are likely to support local nonprofits, sponsor youth sports, and provide local leadership.

Objective #4: Promote the use of green building practices.

Green building practices range from utilizing green building materials to the design and construction of a high-performance building that uses less water and energy or meets the Leadership in Energy and Environmental Design (LEED) Green Building Rating System standards to land use planning focusing growth in Smart Growth or Green Village Developments of walkable mixed-use communities with jobs and housing in close proximity.

Green building materials range from renewable materials like lumber from forests certified to be sustainably managed, or plant materials like bamboo, to recycled materials such as rubber matting made from tires, or non-toxic, reusable, and/or recyclable materials. Inherent in the definition is a reduced energy cost associated with extraction and transportation.

Even when green building materials are not produced locally, they are sold locally, generating local sales tax and employment. As demand grows, it may encourage the growth of green building material development locally, particularly as green technology innovation in the region is nurtured.

Existing local producers of high-performance green building products should be showcased at every opportunity to promote their growth. Education of the local development, construction, and architecture community will help in adoption or provide constructive feedback to improve the product.

Even more beneficial to the region and to reduction of the negative impacts of global warming is the energy conservation, reduced maintenance or replacement costs over the life of a green building, and improved occupant health and productivity.

Land use planning can support the use of green building practices through zoning and land use designations that allow and encourage the development of walkable mixed-use communities with jobs and housing in close proximity. This development is called Smart Growth and it is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities.

An example of this in action in the Inland Empire is Dos Lagos in Corona, a master-planned mixed-use development that balances nature and community. The specific plan laid out the housing and commercial development to create a pedestrian-friendly community while restoring and preserving the natural beauty of the land and the native flora and fauna on the golf course, around the lakes, and in the 135 acres of dedicated hillside open space.

Objective #5: Develop a green certification program to identify and recognize local green technology businesses.

Consumers are becoming more conscious of the impact their buying decisions make on the environment they live in or will leave their children and grandchildren. Consumers appreciate knowing that businesses care about their impact on the environment and have taken steps to reduce it.

There are a number of successful programs that promote green products or businesses through a certification and labeling process. The ENERGY STAR program labels products. The Santa Monica Green Business Certification program labels businesses that have implemented environmental actions and policies company-wide. Both programs provide consumers with information that guides their buying decisions.

ENERGY STAR

ENERGY STAR was first introduced in 1992 by the US Environmental Protection Agency (EPA) as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. The program was designed to help consumers and businesses save money while protecting the environment.

Computers and monitors were the first labeled products. Since then, EPA has partnered with the U.S. Department of Energy and expanded the label to over 50 product categories as well as new homes and commercial and industrial buildings.

Santa Monica Green Business Certification- Sustainable Works

The City of Santa Monica, the Santa Monica Convention and Visitors Bureau and Chamber of Commerce have joined together to certify and recognize green businesses through a local nonprofit educational organization, Sustainable Works.

Local businesses can request an assessment of their green practices and are given targeted recommendations for improvement. Sustainable Works provides free technical assistance to help the business prioritize and implement the new practices through cost information, employee education and follow-up. Once they complete their implementation plan they receive recognition and the right to market their business as a Santa Monica Certified Green Business.

EcoStar

The EcoStar program is another program that publicly recognizes businesses for environmentally sound practices. This program differs in that businesses must meet 15 environmental standards to become an EcoStar achiever. 10 of the standards are required and the remaining 5 may be chosen out of a list of 15. This program emphasizes employee training and involvement as well as educating customers and involving the community.

Each Member receives a copy of the *EcoStar Action Guide* – a comprehensive manual that guides participants through each of the 25 performance standards. For each standard, the manual provides a description of the purpose and benefits, how to document and achieve the standard and provides users with a list of relevant references and resources to help organizations see what other businesses are doing to meet these standards.[xi]

Objective #6: Market region for manufacturing operations to green technology businesses.

The Inland Empire's competitive advantage over the coastal communities which are leading innovation is the room to grow. As new ideas are developed and commercialized, they require manufacturing operations. Some will license their technology to existing companies, but some will need a site for production. Phoenix Motor Cars is just such an example.

The Inland Empire has airports, rail, and highways to connect local operations to other parts of the country, it has colleges and universities graduating trained engineers and technicians, and it has room to grow business operations. The next step is to market the region to these growing companies.

Green technology companies attend green technology conferences promoting their products, green technology entrepreneurs attend National Small Business Innovation Research/Small Business Technology Transfer Conferences and universities host business plan competitions. All of these events provide opportunities to meet and recruit new businesses and promote the Green Valley as a location for production or expansion of operations.

Objective #7: Conduct solar energy feasibility studies.

Beginning in 2007, to encourage installation of solar energy systems on government buildings, the California Solar Initiative began offering California's government agencies an up-front incentive between $2.65 and $3.25/watt to compensate for their inability to access the federal tax incentive or a performance based incentive between $0.37 to $0.50/megawatt-hour (MWh). Because these rebate levels decrease an average of 7% per year between 2007 and 2017, the sooner a system is installed the higher the return.

The more public entities that commit to evaluating the feasibility of installing solar panels on their public buildings, the larger the potential market for solar systems in the Inland Empire. This becomes a marketing opportunity for the Green Valley Initiative.

Objective #8: Market region to solar businesses.

Two current trends indicate solar is a growth industry, the demand for energy world-wide and the increase in polysilicon production capacity that is finally coming online this year and next. Prices are expected to drop by as much as a third around 2010. The lag in price decrease is because most solar panel manufacturers are locked into long-term contracts for polysilicon, the principal material in solar panels.

Solar Industry observers say that global demand for solar is growing 50% per year due to government incentives in California, Germany, and Japan. With a drop in price, solar adoption is expected to increase.

The Inland Empire is an ideal location for capturing sunlight and turning it into electricity. Capturing the jobs that will be generated by an increase in the industry is the logical next step.

Solar businesses range from design and manufacturing to sales, installation, maintenance, repair and service.

Objective #9: Promote solar financing packages to increase solar technology adoption by homeowners.

Many homeowners would like to have a solar energy system, but the upfront expense has been insurmountable. New solar financing packages are coming on the market. To support solar market growth and encourage as many homeowners and housing developers as possible to take advantage of the Go Solar incentives and the anticipated decrease in solar panel prices, financing packages should be promoted. In the past year, new financing developments include:

- GE Money's Sales Finance unit and the Electric & Gas Industries Association (EGIA) provide revolving and installment consumer financing of residential solar systems through EGIA's GEOSmart Sustainable Financing Solutions loan program.[xii]
- SolarCity signed a deal with Morgan Stanley that will cut homeowners' upfront solar-installation costs to about $2,000 and charge them a fixed monthly fee -- not a rate -- for solar power, called the SolarLease. It's the latest in a series of new programs trying to use a commercial financial model to grow the residential solar market.[xiii]
- The Berkeley City Council unanimously approved a solar financing district on November 6, 2007. Home and business owners would voluntarily tax themselves over 20 years to pay for solar panels. The annual tax would be about the same or less than what the property owner would save on energy bills. The city will borrow money at a relatively low interest rate to pay for solar panel installation for property owners who want to participate. Because the city would be borrowing a large sum of money, the interest rate would be lower than what a property owner could secure individually.[xiv]

Objective #10: Establish a GVI Green Tech Entrepreneur Business Plan Competition.

Business plan contests provide venture capitalists access to promising projects. They take place all over the world, particularly at colleges and universities. They are used to support students, alumni, faculty, and local inventors in their entrepreneurial pursuit of creating a business and commercializing promising technologies.

They are also used to attract certain types of new ventures. In Wisconsin, the Governor's Business Plan Contest was developed to attract high-tech businesses to the state. The London Business School is looking for business plans for the best innovation in homeland security. Intel and UC Berkeley partnered to offer The Intel®+UC Berkeley Technology Entrepreneurship Challenge. They are looking for business plans that offer engineering and scientific solutions to make the world a better place.

A Green Tech Entrepreneur Business Plan Competition would focus on innovative business ideas in green technologies for development in the Inland Empire. Several business plan competitions take place in the region at local universities. As a first step, the Green Valley

Initiative can partner with these competitions to offer a prize for winning green technology ideas.

The following competitions take place in the Inland Empire:

- The **CSUSB Student Fast Pitch Competition** is an innovative program offered by the Inland Empire Center for Entrepreneurship (IECE) to expose motivated students to the challenges and rewards of starting their own business (both for-profit and nonprofit social enterprises). The mission of the competition is to involve California State University San Bernardino students in the entrepreneurial process and to foster an environment that promotes the creation of new ventures.[xv] $7,500 in prize money is offered.
- The **Henry R Kravis Award for Entrepreneurship** is an annual business concept plan competition held at the Peter F. Drucker and Masatoshi Ito Graduate School of Management, Claremont Graduate University by The Venture Finance Institute. It is open to alumni and current students and provides feedback to the finalists on the strengths and potential of their plan.

Objective #11: Establish a GVI Green Tech Innovation Network.

Silicon Valley blossomed because of the synergy that occurred from proximity. Networking, idea jam sessions, and cross-fertilization happened at the coffee shop, the gym, parent-teacher nights, trendy restaurants, and at Stanford University.

Fred Terman was the Dean of Engineering at Stanford University in 1946 and he had a vision of a center of learning from the ancient tradition of Bologna or Oxford. "This is the twentieth and twenty-first century form of the honored and ancient community of scholars," Terman wrote of the community he brought to life. "The faculty and students of such a place live in no 'ivory towers.' They have numerous contracts with stimulating, highly creative individuals in industry..."[xvi]

The GVI Green Tech Innovation Network would begin as a quarterly networking meeting aimed at business owners, entrepreneurs, scientists, engineers, and faculty and students, with the purpose of encouraging innovation and growth in green technology-based businesses in the Inland Empire.

Objective #12: Establish a GVI Green Brain Trust

Fred Terman recruited the greatest minds to Stanford. His goal was to research and develop solutions to the challenges of his day. The Green Valley Initiative has the opportunity to do the same through the expansion occurring at the University of California at Riverside, California State University San Bernardino, and Cal Poly Pomona.

As these institutions identify areas for growth and hiring of new faculty, the Green Valley Initiative has an opportunity to develop a Green Brain Trust through faculty appointments that will fuel green technology innovation. The Initiative leaders can approach the leadership of these colleges and universities and explore how to further this goal. They can also approach members of the green technology business community regarding the vision and encourage them to participate by endowing research chairs and funding innovative research.

Objective #13: Establish a GVI Green Tech Commercialization Program.

Entrepreneurs are usually good at developing or designing their product or technology, but not at transitioning it into the marketplace. The purpose of establishing and promoting the existence of a commercialization program aimed at green technologies is to encourage Inland Empire inventors to pursue their ideas and establish companies in the region that will lead to economic and job growth. Once they have their idea fully formulated, a commercialization program can assist them in getting it to market. Commercialization assistance would range from market studies to prototype development.

Objective #14: Establish a GVI Small Business Innovation Research (SBIR) Green Tech Matching Grant.

The U.S. Small Business Administration (SBA) Office of Technology administers the Small Business Innovation Research (SBIR) Program and the Small Business Technology Transfer (STTR) Program. Through these two competitive programs, SBA ensures that the nation's small, high-tech, innovative businesses are a significant part of the federal government's research and development efforts. Eleven federal departments participate in the SBIR program; five departments participate in the STTR program awarding $2 billion to small high-tech businesses.

The purpose of establishing a local matching grant program to recipients of SBIR or STTR grants for green technologies is to encourage innovative businesses to pursue the commercialization of their products in the Inland Empire. The matching grant may in-kind, to provide research space at the green technology incubator or assistance from the GVI Green Tech Commercialization Program or it may be a cash match to further the commercialization research of their SBIR grant.

Objective #15: Develop a green technology incubator.

The Alliance for Commercialization of Technology (ACT) was recently launched by California State University, San Bernardino (CSUSB). It is developing a high-technology innovation network located in Southern California's Inland Empire (IE), which includes Riverside and San Bernardino Counties and adjacent communities. Through its Network Office currently located at Cal State San Bernardino, ACT plans to coherently assemble and link innovation resources across the IE. Through planned local semi-autonomous accelerator facilities, network resources will be applied to Client high technology companies enabling successful innovation and commercialization of their products. Each accelerator facility will have a particular technology focus, and it is anticipated that at least one will focus on companies with clean technology products. The overarching goal of ACT is to stimulate economic growth and job creation in the Inland Empire.

UC Riverside has the strongest research focus on clean and green technology in the **Center for Environmental Research & Technology.** They developed the technology licensed by Viresco Energy that can produce clean synthetic transportation fuels from biomass such as municipal

sludge, agricultural waste, and wood. A green technology incubator associated with CE-CERT would provide tenants with links to the faculty and graduate students at UC Riverside and a continuing source of new ventures.

Objective #16: Develop a green technology industrial park(s).

One of the most famous and first of its kind high tech business parks is Stanford Research Park. It was established as a source of revenue for the University and to provide local employment opportunities for graduating students. Because the University owned the land and had a vision that included research and development that would engage its faculty and students, leases were limited to high technology companies.

The Green Valley Initiative demands no less than a green technology park based on research and development with strong linkages to the local research universities and colleges. The region has three locations that could foster such industrial parks and target specific green technology industries:

March Air Reserve Base – Green Transportation
Situated on the south side of Moreno Valley in Riverside County the base redevelopment plan calls for commercial and industrial development. A green technology business park with a focus on green transportation such as bio diesel, cellulosic ethanol, Ultra Light Rail Transit (Cybertran, International) and electric car manufacturing and assembly (Phoenix Motor Co.) has merit because of the proximity to UC Riverside and the Center for Environmental Research & Technology and their research in developing autonomous vehicles and transportation systems for the future, converting biomass such as yard waste into vehicle fuel, and developing alternative-fueled engines and vehicles.

George Air Force Base – Clean Energy
George Air Force Base is located in Victorville and has been designated as a Free Trade Zone so it will be attractive to companies that are importing parts for manufacture for the domestic market or that are manufacturing for export. With the world-wide demand for electricity driving the increased use of clean energy from wind power, solar power, fuel cells, etc., companies manufacturing for export in these industries would be able to take advantage of the tax benefits of the free trade zone.

Norton Air Force Base – Advanced Building Material and Appliance Technology
Norton Air Force base is located in San Bernardino. At that site, companies investing in research and development will have easy access to the Alliance for Commercialization of Technology at CSUSB. Establishing a green technology business park with a focus on green building services, advanced building materials manufacturing and development, and green appliances would be in keeping with the Green County San Bernardino initiative for green building. Examples of companies in these industries that will need expanded manufacturing capacity as their product expands are Volcan Technologies Inc. in Minneapolis with the patented VolcanWall Steel-framed, Hand-finished, Insulated Panels (SHIPs) which make buildings energy efficient and sustainable at an affordable price and iCel Systems in Van Nuys with a proprietary technology for advanced lithium battery storage for use in cars, homes, or for commercial applications.

The Center for Water Education at Diamond Valley Lake – Green Water Technology
The Center for Water Education is located in Hemet, adjacent to Diamond Lake, California's newest and largest reservoir. This $30 million museum and educational center is managed by a nonprofit foundation created by the Metropolitan Water District of Southern California (MWD). It houses 30,000 square feet dedicated to the objectives of water education and research in water supply, reliability, and sustainability. The Inland Empire faces a water shortage that will limit growth without viable solutions. Globally, fresh clean drinking water and desalination are already major concerns. The research conducted at this location could address these local and global issues and be combined with incubation and manufacturing for a Green Water Technology Park.

Global Green Technology Trade Center: Both George and Norton Air Force Bases are also well situated to become part of the Green Valley Initiative Global Green Technology Trade Center. Green technology has global markets that make the Inland Empire an attractive location for manufacturing operations. Norton has California Enterprise Zone incentives as a Local Agency Military Base Recovery Area (LAMBRA) and has a U.S. Customs office on site. George has a Free Trade Zone which provides tax benefits to manufacturers with overseas markets or components.

Objective #17: Market region's support for green technology start-ups.

As each of the following strategies are implemented they strengthen the case to entrepreneurs that the support available in the Inland Empire means that it is "the" place to start their business. Marketing this infrastructure for green technology start-ups will also support the place branding of the Green Valley.

- Green Valley Initiative
- GVI Green Tech Entrepreneur Business Plan Competition
- GVI Green Tech Innovation Network
- GVI Green Tech Commercialization Program
- GVI Small Business Innovation Research (SBIR) Green Tech Matching Grant
- Green Tech Incubator(s)
- Green Technology Park(s)
- GVI Green Certification Program

Objective #18: Identify federal and state financial resources.

Identifying federal and state resources is an ongoing process which is facilitated by email notification of federal grant opportunities. A list of the annual grant programs can be developed and grant writers identified to access the programs. Grants.gov is the web-based listing of all federal grant programs. The state is developing a similar listing.

The following agencies provide grant programs that would be useful for implementing the Green Valley economic strategic plan.

- U.S. Department of Commerce, Economic Development Administration – infrastructure related to high-skill, high-wage jobs

- U.S. Department of Housing and Urban Development – Economic Development Initiative – grants and loans for development

- The California Infrastructure and Economic Development Bank (I-Bank) - tax-exempt securities for acquisition, construction, rehabilitation and equipping of manufacturing and processing facilities for private companies.

- California Research and Development (R&D) Tax Credit - allows taxpayers to claim a credit for a portion of their incremental R&D expenses. Incremental expenses are calculated as increases in the ratio of a taxpayer's current-year R&D expenses to gross sales relative to a four-year base period. The credit is equal to 15% of "qualified," also known as applied, incremental R&D expenses, and 25% of qualified incremental "basic" R&D expenses. Basic R&D is research conducted at qualified universities or scientific research organizations.

- California Energy Commission's Research and Development Division Public Interest Energy Research (PIER) Program - supports energy research, development and demonstration (RD&D) projects that will help improve the quality of life in California by bringing environmentally safe, affordable and reliable energy services and products to the marketplace. The PIER Program annually awards up to $62 million to conduct the most promising public interest energy research by partnering with RD&D organizations, including individuals, businesses, utilities, and public or private research institutions.

- California Energy Commission's Research and Development Division Energy Innovations Small Grant (EISG) Program - provides up to $95,000 for hardware projects and $50,000 for modeling projects to small businesses, non-profits, individuals and academic institutions to conduct research that establishes the feasibility of new, innovative energy concepts. Research projects must target one of the six PIER program areas, address a California energy problem, and provide a potential benefit to California electric and natural gas ratepayers.

Objective #19: Develop legislation to establish Green Technology Innovation Zones that provide tax incentives to green energy companies.

The State of California has two geographically-based economic incentive programs, the California State Enterprise Zone Program (EZ), and the Recycling Market Development Zone (RMDZ).

The most successful program is the Enterprise Zone. It was created to stimulate economic growth in areas throughout the state that are economically distressed. The Program provides a variety of incentives to cities to help stimulate business expansion in designated areas and is

designed to aid in attracting and retaining businesses and industries to help facilitate the creation of job opportunities for California residents.

The RMDZ is more specialized. It was developed to combine recycling with economic development to fuel new businesses, expand existing ones, create jobs, while diverting waste from landfills. Businesses locating in an RMDZ have access to loan funds for equipment, working capital, or real estate; technical assistance; and free product marketing.

A purpose of a Green Technology Development Zone Program would be to stimulate the growth of green technology businesses in targeted areas within the state, especially in the Green Valley, to focus incentive programs, both private and public to foster job growth that could include streamlined permitting, attractive loans, low or no-cost technical assistance, marketing support, and tax incentives linked to research and development expenditures or local hiring.

V. Strategic Projects, Programs, and Activities

To implement the vision, the objectives must be linked through place branding such that the branding becomes a key driver in the realization of the growth of green technology as companies want to become a part of what's happening in the Green Valley.

The branding process can be considered as a key element in five dimensions of the local economic development package:

1. **Repositioning**: Assessments of the Inland Empire's current advantages and resources, its disadvantages, and its opportunities can all be framed within the development of an evolving place identity.

2. **Visioning**: The development of relationships between investors, residents, businesses, and public agencies should be considered in terms of the emergence of the Green Valley's place identity. Partnerships between these stakeholders should be considered from the standpoint of their unique character, and championed for the unifying vision these relationships provide. In turn, it is these partnerships that will champion and manage the place brand.

3. **Strategy**: The detailed plan for implementing the economic development strategy should be framed in terms of the development of the Green Valley's evolving story. Implementation of the economic development strategy and place branding strategy should be simultaneous and indistinguishable.

4. **Activities**: Funded activities undertaken to brand the identity of the Green Valley should be part of the same strategic rollout as funded activities undertaken for economic development.

5. **Marketing:** Promotion and media placement should focus on the life of the Green Valley, as it is enriched by the economic development activities, and how the place has evolved over time.

Inputs, Outputs, Desired Outcomes

The work of developing a successful place brand should be divided into three categories described as inputs, outputs, and desired outcomes. *Inputs* include defining objectives, target audiences, and articulating the brand image; *Outputs* include a list of clear values and unique advantages; *Desired Outcomes* are the benchmarks by which the branding program is evaluated.

In the following table, each objective has been defined as a program and is listed along with the purpose or objective to be achieved and how to achieve it.

BLUEPRINT FOR BECOMING THE CENTER OF GREEN TECHNOLOGY DEVELOPMENT

PROGRAM	PURPOSE OF PROGRAM	HOW TO IMPLEMENT THE PROGRAM
Place branding the Green Valley	To develop a synonymous economic and place identity to promote the Green Valley.	Maintain the dialogue with the regional stakeholders and establish charter memberships in the Green Valley Initiative. Establish a branding committee to develop the inputs, outputs and desired outcomes for the place branding program.
Green Tech Advocate	To support the economic growth and development of the Green Valley.	Establish funding for Green Tech Advocate to support cities and counties and promote entrepreneurship.
Purchase local green goods and services	To support the growth of the local economy.	Identify local green technology businesses. Co-market with the Green Valley Initiative. Promote local green products. Register manufacturing businesses with Connectory.com to encourage business-to-business sales.
Promote the use of green building practices	To develop high-performance buildings with reduced maintenance or replacement costs over the life of the building, energy conservation, and improved occupant health and productivity. To encourage the growth of green building material development locally.	Partner with the U.S. Green Building Council Inland Empire to develop programs to promote the use of green building materials and the adoption of high-performance building standards (Title 24) through education, advocacy, and training of architects, engineers, designers, general contractors, developers, planners, municipalities, material manufacturers, green-collar workers, and consumers.
GVI Green Certification Program	To support the growth of the local economy, instill community pride, and encourage private investment.	Partner with the Chambers of Commerce to design and implement a Green Valley Initiative Certification Program for businesses adopting green practices. Establish criteria for a special category for businesses that purchase goods and services from local green technology companies. Partner with economic development community to design and implement a Green Valley Initiative Business Recognition Program for green technology businesses.

PROGRAM	PURPOSE OF PROGRAM	HOW TO IMPLEMENT THE PROGRAM
Market region for manufacturing operations to green technology businesses	To increase local manufacturing base for the green economy.	Survey green technology businesses for location requirements for manufacturing operations. Prepare marketing materials promoting attributes of region. Attend conferences for green technology industries, the Small Business Innovation Research program, and Business Plan promotions to identify expanding green tech businesses. Promote region to Angel Investor Networks and Venture Capital firms investing in green tech businesses.
Conduct solar energy feasibility studies	To increase adoption of solar panels by local governments.	Ask each public entity or jurisdiction to commit to evaluating the feasibility of installing solar panels on each public building by the end of 2010. (Go Solar California) Partner with Universities and Colleges to provide feasibility analysis, cost-benefit analysis, or Life Cycle Analysis through student class projects. Partner with the public utilities to seek funding from the PUC for some of the analysis
Promote solar technology financing packages	To increase solar panel adoption by homeowners.	Partner with developers, financial institutions and solar manufacturers to promote financing mechanisms attractive to new and existing homeowners.
Market region to solar businesses	To attract solar businesses to expand into the region.	Attend solar industry conferences to identify companies and promote region. Contact local businesses that serve the region and ask why they haven't opened an office in the region. Survey end-users to learn why they have chosen businesses outside the region. Share results with local businesses and provide marketing assistance to increase their market share.

PROGRAM	PURPOSE OF PROGRAM	HOW TO IMPLEMENT THE PROGRAM
Establish a GVI Green Tech Entrepreneur Business Plan Competition	To encourage local green technology entrepreneurial business development.	Partner with Angel Investor Networks and technology transfer and commercialization offices at the Universities and Colleges in the region to establish green technology and business plan judging criteria. Develop review team. Develop prize for winner(s) – such as technical support with a Small Business Innovation Research grant application or commercialization support, or free rent for 1 year at a green technology incubator, or opportunity to present their business plan to an Angel Investor group.
Establish a GVI Green Tech Innovation Network	To support the interaction between engineers, inventors, and entrepreneurs together.	Establish a quarterly green innovation networking and lecture series to bring investors and entrepreneurs together.
Establish a GVI Green Tech Commercialization Program	To support the initial feasibility analysis of new green technologies.	Partner with the Alliance for Commercialization of Technology, Cal State San Bernardino to conduct a commercialization program for green technologies. Fund a matching grant program of up to $25,000 per applicant to support the initial feasibility analysis for new technologies.
Establish a GVI Small Business Innovation Research (SBIR) Green Tech Matching Grant	To encourage local green technology innovation.	Establish an investment fund to provide matching funds to successful applicants to the federal SBIR grant program. • Up to $100,000 to support Phase I exploration of the technical merit or feasibility of a green technology • Up to $750,000 to support a Phase II full-scale research and development of a green technology
Develop a green technology incubator	To support the development of new green technology business ideas.	Conduct a green technology incubator feasibility study. As an interim strategy, engage existing incubators and recruit green technology entrepreneurs to their facilities to develop a track record for green technology business development.

PROGRAM	PURPOSE OF PROGRAM	HOW TO IMPLEMENT THE PROGRAM
Develop a green technology industrial park(s)	To support the marketing of the region to green technology businesses.	Identify existing industrial parks with a high percentage of green technology tenants or locations for development of a new industrial park to be dedicated to green technology businesses. Proximity to universities, colleges and green technology focused incubators should be considered.
Market region's support for green technology start-ups	To attract green technology business entrepreneurs to region.	Develop marketing materials to be used regionally that promote the support structure that exists for green technology start-ups and manufacturers: • Green Valley Initiative • GVI Green Tech Entrepreneur Business Plan Competition • GVI Green Tech Innovation Network • GVI Green Tech Commercialization Program • GVI Small Business Innovation Research (SBIR) Green Tech Matching Grant • Green Tech Incubator(s) • Green Technology Park(s) • GVI Green Certification Program
Identify federal and state financial resources	To increase funding for green technology business development and expansion.	Develop list of annual federal and state grant programs. Identify grant writers. Establish plan for pursuing annual grant opportunities. Develop partnerships to pursue grant opportunities. Monitor one-time grant opportunities on Grants.gov and pending legislation for future opportunities.
Develop legislation to establish Green Technology Innovation Zones that provide tax incentives to green energy companies	To stimulate economic growth through incentives that help attract and retain businesses and support business expansion.	Review legislation for the State Enterprise Zone and for the Recycling Market Development Zone. Determine whether either program can be extended to support green technology and whether legislation is required. If legislation is required, identify a law firm to provide pro bono support in drafting potential legislation. Meet with local legislators about sponsoring legislation to establish Green Technology Development Zones.

VI. CEDS Plan of Action

The CEDS is a dynamic process that involves broad-based stakeholder participation to improve an area's economy. The Green Valley Initiative CEDS Committee will undertake the following next steps to strengthen and diversify the economic base and improve the living conditions in the Inland Empire:

- Work closely with the Southern California Economic Development Representative to identify priority areas of investment.

- Hold meetings with public stakeholders including municipal leaders and representatives to bring resources to the area. Discuss possible projects and improvements that can be facilitated with EDA investments and can result in new jobs for the area.

- Hold meetings with private stakeholders including developers to identify possible development projects. Collaborate and develop public–partnerships eligible for EDA investment.

- Review projects; identify projects that meet EDA guidelines and priorities; assist other potential EDA grantees in shaping their applications; identify EDA projects in the pipeline for future funding.

- Present to EDA pre-application for federal funding for select projects and assist project proponents with grant application requirements.

- If funded by EDA, review performance of EDA investments on a regular basis.

- Identify and leverage funding for needs identified from sources other than EDA.

- Review CEDS document on a yearly basis and revise as needed in response to the changing economic conditions.

- Expand CEDS Committee to reflect the diversity of the stakeholders of the project area.

VII. Performance Measures

The following describes the criteria used to guide the program and project selection portion of the CEDS. Since EDA investments are very competitive, projects and programs will be evaluated based on the extent to which they meet and/or maximize the following criteria.

- **Market Based:** Are the proposed investments market based? How will the investment stimulate the private economy?
- **Proactive Investments:** Are the proposed investments proactive in nature and scope?
- **Economic Changes/Diversification:** Do the proposed investments look beyond the immediate horizon, anticipate economic changes, and diversify the local and regional economy?
- **Private capital investment:** Are investments maximizing private capital investment? (Discuss search for other funding and explain necessity for EDA investment.)
- **Success Anticipated:** What is the probability of success?
- **Matching Funds:** Level of local, state, and private matching funds.
- **Local Political Capital:** High degree of commitment of local political "capital" by elected officials.
- **Human Resources:** Commitment of human resources talent to project outcomes.
- **Jobs Created/Wealth:** Will the proposed investment create an environment where higher paying jobs are created? (Describe types of jobs created, and how federal investment increases the wealth of the workforce.)
- **Return on Taxpayer Investment:** Does the proposed investment maximize return on taxpayer investment? (Results from investment anticipated; describe benefits to local economy and tax base.)

The following CEDS Rating Instrument will assist the Inland Empire CEDS Committee evaluate potential projects and applicants for funding. In addition, organizations or jurisdictions applying for EDA funding can utilize the Rating Instrument to conduct a self-evaluation to fully assess the potential of the project in fulfilling the goals and objectives of the region.

CEDS Suggested Project Rating Instrument

CRITERIA MEASUREMENT SUGGESTED RATING

CRITERIA	MEASUREMENT	SUGGESTED RATING
JOB CREATION		
1. Number of long-term jobs created	0-9 10-49 50-99 >100	-0- 1-3 4-6 7-9
2. Quality of job created appropriateness to community	Retail, Finance, Education, Services, Health Care, Manufacturing & High Tech	1-9
Pay scale of jobs	Minimum Wage, Living Wage, Skilled and Professional	
3. Total cost per job ratio	> $12,501 $7,500 - $12,500 <$7,500	1-3 4-6 7-9
COMMUNITY IMPACT		
4. Unemployment rate in project area	<5% 5-8% >8%	1-3 4-6 7-9
5. Median income in project area	$35,001-$50,000 $25,000-$35,000 <$25,000	1-3 4-6 7-9
6. Community benefit	- Creation of new jobs - Welfare to work - Family-wage and higher pay (high value jobs) - Local hiring - Creation of new business opportunities in the project area - Improve quality of life - Increase the tax base	1-9
7. Groups and organizations endorsing the project		1-4
CRITERIA	**MEASUREMENT**	**SUGGESTED RATING**

JOB CREATION 8. Employment plan	- Timing of employment plan - Comprehensiveness of employment plan (e.g., plan for local hiring, coordination with local/ regional/employment/training organizations, outreach, etc)	1-5
PROJECT READINESS & INVESTMENT		
9. Current status of proposed project	Conceptual Planning and design Ready to construct (Consider site control, relocation, environmental issues, time frame relative to grant year and if financing has been secured)	1-3 4-6 7-9
10. Other funding sources	25% private investment 26-40% >40%	1-3 4-6 7-9
11. EDA funding request to total project cost ratio		1-5
12. Capacity of operator during construction and as a going concern	- Experience (number and size of other projects and how successful were they?) - Financial strength	1-9
13. Bonus	- Overall quality of the project - Innovation and creativity - Coordination with other projects in region - Secondary impacts - Other	1-5
TOTAL POINTS POSSIBLE		100
TOTAL POINTS FOR THIS PROJECT		

Endnotes

i Department of Finance, Riverside and San Bernardino County Profiles, Area

ii Department of Finance, State of California Profile, Area

iii Claritas estimate 2008

iv "The Future of the California Economy is on the Coast" ,Center for Continuing Study of the California Economy, Stephen Levy, February 2007.

v California Green Innovation Index: 2008 Inaugural Issue, p. 2, http://www.coecon.com/Reports/GREEN/CAGreenIndex.pdf

vi California Economic Strategy Panel, California Labor & Workforce Development Agency, http://www.labor.ca.gov/panel/

vii Clean Technology and the Green Economy: Growing Products, Services, Businesses and Jobs in California's Value Network, p.3, http://www.labor.ca.gov/panel/pdf/DRAFT_Green_Economy_031708.pdf

viii California Green Innovation Index: 2008 Inaugural Issue, p. 9, http://www.coecon.com/Reports/GREEN/CAGreenIndex.pdf

ix What can Green do for you? Battelle Top Ten List Forecasts Emerging Green Technologies, Battelle, http://www.battelle.org/SPOTLIGHT/tech_forecast/emerginggreen.aspx, April 21, 2008.

x Apollo Alliance, Green for All, Center for American Progress, Center on Wisconsin Strategy, "Green-Collar Jobs in America's Cities: Building Pathways out of Poverty and Careers in the Clean Energy Economy" p. 3, http://apolloalliance.org/downloads/greencollarjobs.pdf

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xii Renewable Energy Worldwide.com Online, "GE Helps Homeowners Afford Solar with Nationwide Financing", http://www.renewableenergyworld.com/rea/news/story?id=49472, July 30, 2007.

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xiv SFGate, "City Council unanimously OKs solar financing district", http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/11/07/BAT9T7GC0.DTL, November 7, 2007.

xv CSULB Entrepreneurship, "Student Fast Pitch Competition", http://entre.csusb.edu/simple_text.php?menu_id=23

xvi Business Week, "The Engineer who Jump-started Silicon Valley", August 25, 1997.