



**SEG**  
Sustainability  
Engineering  
Group, LLC.

**Civil / Transportation / Water Resources / Wastewater / Planning / LEED**

**Dear Friend,**

It seems everywhere I turn there is growth, construction, projects beginning, the rebuilding goes on... and I am proud to announce that Arizona appears to be leading the way in new LEED building certifications.

In addition Pinal county has been honored with being the 2nd fastest growing county in the United States this past decade.

Please review some of the highlighted projects each month in our newsletter and on the website. Your input is greatly appreciated

Sincerely,

Ali Fakh  
Sustainability Engineering Group  
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### Green Links

[Horizon Eight Video - The economy is recovering, but it's a slow recovery. Economist Elliott Pollack will discuss the latest trends.](#)

[Wind Power Mexico, 12 - 13 May 2011, Mexico City - This event will create expansion in the Mexican wind market](#)

[APS Shade Tree Workshop May 14 & 21 - These workshops qualify for the APS Shade Tree Program - Glendale Library](#)

## Intel's Ocotillo manufacturing campus in Arizona received LEED silver certification

### Existing Buildings: Operations & Maintenance

Apart from striving to meet the green building requirements laid out in the LEED rating system, Intel engineers are constantly innovating with sustainability in mind. A team of such innovators at the Ocotillo campus determined that the carbon dioxide emissions produced by the fabrication facility ("the fab") were well-suited to grow algae, which can be used to create clean-burning biofuel.

Working with Arizona State University (ASU), the team erected a small proof-of-concept model on the roof of the Ocotillo fab, which demonstrates the capture of boiler emissions, the use of the emissions to grow algae, and the conversion of those algae into biofuel. This sort of carbon recycling could reduce the overall carbon emissions of the fab and, by creating a sustainable alternative fuel, displace the carbon emissions of burning fossil fuels from the Intel boilers.



The next phase of the project will focus on measuring the amounts of carbon captured, identifying options for implementing the concept on a larger scale, and assessing how algae-based carbon recycling should be recognized under various regulatory regimes. The Intel and ASU participants plan to continue to make their research results publicly available under the open, collaborative research model the team has established.

Learn more at [Intel](#)

## 10.3 percent during the past decade, and Pinal County was No. 2 for growth

### 109 percent from 179,469 in 2000 to 375,770 in 2010

The core counties of America's metropolitan areas grew 10.3 percent during the past decade, and Pinal County was No. 2 for growth. Pinal County, which is southeast of the Phoenix area, was the second-fastest-growing metro-central county. Its population grew by 109 percent from 179,469 in 2000 to 375,770 in 2010.

The nation's metro-central counties grew with impressive speed between 2000 and 2010, adding more than 22 million people, according to an analysis of new U.S. Census Bureau data. They easily surpassed the growth rate for the rest of the nation, which was 7.7 percent.

To learn more visit [Phoenix Business Journal](#).





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### 2011 Green Business Trends

1. Collaborative Consumerism
  2. Eco-Superior
  3. Reduce, Reuse, Recycle
  4. Social Shopping and Group Buying
  5. Gamification
  6. Energy Dieting
  7. Alternative Transportation
  8. Urban Farming
  9. Local Action
  10. Sustainable Investing
- Proverb



Eco-tips for Laundry



True Green Tips

## Each credit costs \$1 and represents 1,000 gallons returned to a stream

### Drink Beer, Save Water

Fishing, beer and water have long gone hand in hand - remember "Brewed with Pure Rocky Mountain Spring Water?" - so maybe it's no surprise that independent breweries are some of the most enthusiastic supporters of water restoration certificates, a new model for making dried-out rivers run again.



It's a twist on the renewable energy credits that many companies use to offset their carbon footprints. Instead of funding green energy projects, "water tags" from the non-profit Bonneville Environmental Foundation let businesses pay to neutralize their H2O consumption.

The money goes to the holders of irrigation rights on degraded streams who in return agree to let their allotment flow free. Montana's Big Sky Brewing Company, for instance, is returning four million gallons to the Prickly Pear Creek near Helena, enough to offset all of the water that goes into its beer. Portland's Widmer Brothers Brewing agreed to return nearly three million gallons to Oregon's Deschutes River and Evans Creek - the equivalent of what it takes to brew its Drifter Pale Ale.

To learn more visit [Sustainable Industries](#).

## Gilbert VW dealership out to be 1st on continent to be LEED certified in 2011

### 22 percent of the materials used in construction came from recycled resources

SanTan Volkswagen in Gilbert is on track to become the first VW dealership in North America to be officially certified for its environmentally friendly design and energy-efficient features. Nearly a fourth of the building materials used in construction were recycled, and the building itself was designed to conserve water, minimize energy use and, by using non-toxic paints, coatings and sealants, create and maintain a healthy internal environment.

#### LEED features at SanTan Volkswagen

- Water: Xeriscaping and the use of reclaimed water for irrigation purposes minimize external water use, while low-flow faucets and shower heads reduce internal use.
- Energy: Reflective roofing materials, efficient cooling systems and insulation, and the use of natural light and motion sensors greatly reduce the use of electrical energy.
- Waste: More than 85 percent of the waste generated during construction was recycled.
- Air quality: The use of non-toxic paints, coatings, sealants and cleaning products creates a healthier building environment for occupants.
- Recycled materials: 22 percent of the materials used in construction came from recycled resources.



Source: John Mahoney Architects, Colton Constructors, Ecological Environments.

To learn more visit [AZ Republic](#).

## Sustainability Engineering Group LLC

Please feel free to email us your input, comments and suggestions to help make this newsletter a success. Your input is very valuable. Have a Great Day!

Sincerely, Ali Fakih

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As a small engineering firm, we provide competitive prices with heightened level of services. We would like the opportunity to propose on your future civil engineering projects.

SEG has served as a lead consultant for public and private agencies in Arizona and throughout the western region of the United States. Additionally, we have a great deal of experience in Transportation, Master Planning and entitlements, civil engineering, water / wastewater treatment plant, Hydraulic / Hydrology and sustainability investigation.

SEG's key members provide more than 150 combined years of experience in public and private sector work.. we do hold Professional Engineer licenses in Arizona and California.



**SEG  
Current  
Project:**

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to learn  
more...](#)

## Retail Tenant Improvements

**Palm Valley Marketplace, Goodyear, AZ:** managed architectural construction documents, TI and building permit services based upon processing requirements for the city. Project consists of an approximately 3,500 square foot interior tenant remodel in the Palm Valley Marketplace located at the SW corner of Indian School Rd. and Litchfield Blvd.

**Superstition Springs Center Eye Stop Optical, Mesa, AZ:** managed retail build-out, architectural construction documents and building permit acquisition for an interior remodel of an existing 693sf retail tenant space. The project included three new offices, new storefront, placement and coordination of owner supplied equipment.

**Go Go Yogurt, Phoenix, AZ:** managed retail TI's, architectural construction documents and building permit acquisition services for the interior remodel of an existing 1,500sf restaurant. Finished retail restaurant build-out. Project included placement of owner supplied equipment and furnishings.



Please [contact](#) the Sustainability Engineering Group for all your project needs.

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