

City of Las Cruces Sustainability Action Plan Annual Update 2016

On June 16, 2014, the City Council adopted the City's second Sustainability Action Plan covering years 2014 to 2017. This annual update describes the City's progress on the goals and objectives described in the Plan.

Council Work Session

June 13, 2016

Mayor

Ken Miyagishima

City Council

Greg Smith, Mayor Pro Tem, District 2

Kasandra Gandara, District 1

Olga Pedroza, District 3

Jack Eakman, District 4

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Staff

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Sustainability Action Plan

Annual Update 2016

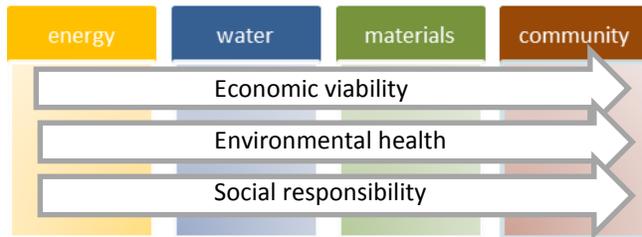
Introduction

The City Council’s adoption of the Sustainable Action Plan 2014-2017 confirms the City’s direction in advancing sustainable principles and practices.

Sustainability has been defined in many ways. A well-established sustainability framework, the Triple Bottom Line (TBL), describes the intersection of humans’ economic, environmental, and social priorities. Other views of sustainability encourage the use of nature’s efficient services. The Sustainability Office combines these views and asserts that by embracing nature’s services the City will inspire a vibrant economy and community now and in the future.

Design of the Sustainability Action Plan 2014-2017

The Triple Bottom Line serves as the overarching goals of this plan. The objectives of the plan are or-



ganized into four natural themes: Energy, Water, Materials and Community. Because of the interdependent nature of the TBL, the representative goals apply to all the objectives in the plan. The metrics included in the plan, track the City’s progress in moving toward our sustainability goals and objectives.

Annual Update 2016 Executive Summary

The main report provides a narrative, graphics, and photos highlighting this year’s many activities. The appendix following the main report includes the Departments and Joint Power Agreement Entities, (i.e. Metropolitan Planning Organization and South Central Solid Waste Authority) specific updates on each of the objectives with rankings of plan, act, impact, and accomplished.

The second year of the Sustainability Action Plan has shown a sincere commitment to advancing sustainable principles and practices throughout the City. Five (20 percent) of the 26 objectives have already been accomplished! Another 23 percent have made a measurable impact toward the sustainable objectives. Just under 38 percent report taking actions that have yet to demonstrate an impact at this juncture. The remaining 19 percent are still in the planning stage.

The City’s sustainable trajectory looks promising.

energy updates

E1 Monitor energy consumption in City facilities, fleet, and other operations to identify variances monthly for departmental review.

E2 Decrease energy consumption and greenhouse gas emissions in City buildings and streets by 7 percent of the end of 2013 baseline.

OBJECTIVE E2 ACCOMPLISHED

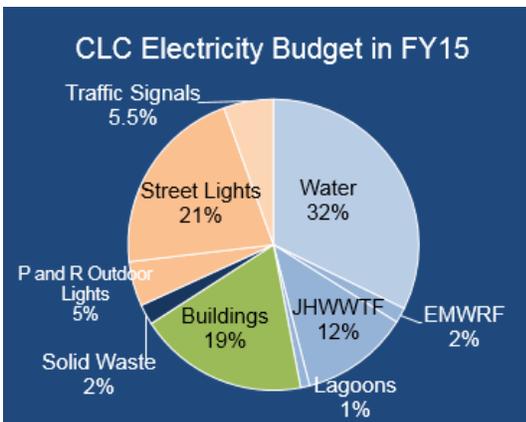
With the Community Investment Projects the City will initiate an ambitious set of installations that will save the City money, decrease the City’s dependence on fossil fuels, and reduce carbon emissions.

The City will begin construction on five photovoltaic systems at various City facilities. This will increase solar power in the City by 620 KW – bringing the

City’s renewable energy portfolio to 6.3 percent of the City’s total energy use. For three of these installations -- the Munson Center, Sage Café, and East Mesa Public Safety Complex – the PV systems will make the buildings net-zero. This means that the buildings energy consumption is equal to the amount of renewable energy created on site. The Las Cruces Regional Aquatic Center will also receive a sizable boost by having a potential 40 percent of its energy met by renewables. The small addition to the Las Cruces Convention Center installation will add 25 percent to its renewable energy supply and garner over \$9000 annually from its already established \$0.155 Renewable Energy Credits until 2023. Twelve buildings received a lighting retrofit converting old fluorescents to efficient LEDs saving the City over \$26,000 annually.

The City also initiated a contract with an Energy Service Company (ESCO) to audit facilities and improve energy efficiency. With recommended conservation measures from the audit, the City may move forward with implementation promising 20 percent reduction in energy and water use.

2015-2016 Renewable and Energy Efficiency Projects	kWh savings	Dollar savings
Solar Panel (620 KW)—Munson Center, Sage Café, and East Mesa Public Safety Complex, Las Cruces Regional Aquatic Center, and Las Cruces Convention Center	1,151,631	\$146,745
LED Retrofit—Fire Stations 2, 3, 5, 6, Police Academy, Fielder Memorial Safe Haven, Juvenile Citation Building, Railroad Depot, and 6 Hadley facilities	234,792	\$28, 837
LED Retrofit on Solano	158,965	\$22,891
TOTAL	1,545,3880	\$198,473



E3 Review and prepare feasibility of alternate energy sources for utility facilities.

E4 Utilize utility waste streams to generate onsite energy.

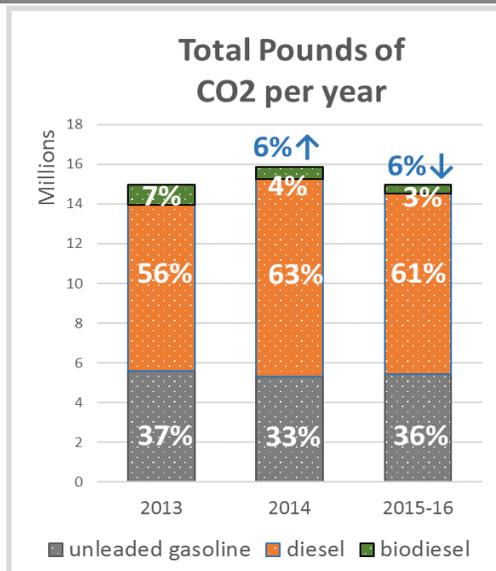
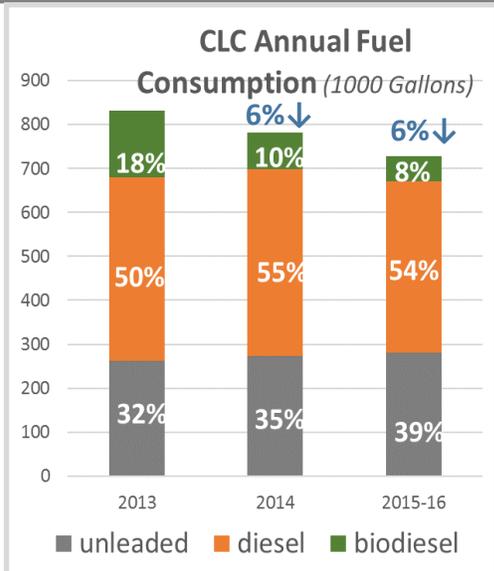
Las Cruces Utilities is implementing a 300 KW Solar Photovoltaic Project at the East Mesa Water Reclamation Facility to offset electricity consumption at the facility. Construction is anticipated early summer 2016.

Jacob Hands Waste Water Treatment Facility Co-Generation Plant will be utilizing the waste methane gas and converting to electricity via two 330 KW engine generators. Anticipated completion spring 2017.

energy updates

E5 Reduce greenhouse gas emissions in city fleet to 5 percent below 2013 end of year baseline rate.

Fleet is working diligently to increase fuel efficiency. Interestingly, even a 12 percent reduction in fuel consumption doesn't translate to a change in greenhouse gas (GHG) emissions given the



City's use of fuel. The decrease in low GHG emitting biodiesel in 2014 (57,408 gallons of biodiesel - decrease of 30%) shifted use to diesel with significant higher GHG's. It took greater fuel efficiency (389,652 gallons of diesel - decrease of 9% from 2014 and 280,172 gallons of unleaded - decrease of 3% from 2014) to bring City emissions to square one. Given the emissions and repair needs of diesel engines, Fleet will not purchase diesel vehicles unless the vehicle is towing heavy equipment. The City is adding two hybrid Ford C-Max to the fleet. Parks and Recreation is doubling its electric GEM's, for a total of 4. A few EV charging stations are also in the plans.

Fleet developed an anti-idling policy. Heavy equipment vehicles ordered in FY 2017 will be equipped with an hour odometer along with mileage. The hour odometer will assist in regulating the anti-idling policy.



E6 Increase use of alternative transportation options by 7 percent from end of the year 2013 baseline rates.

In FY 2015, fixed route (FR) ridership was identical to the previous year. Both Rider training programs have started at Senior Programs to teach senior how to use the less expensive fixed route service. In FY 2016, a new fixed route plan will be implemented that will make the routes more reliable.



Fleet adding two new hybrids

E7 Promote alternative energy manufacturing and construction as a core business sector in the region.

Community Development is testing different ways to track the business sectors through MUNIS or Accela. One method is using the North American Industry Classification System (NAICS) codes. If successful, the City will be able to report on the types and trends of core business sectors. In the past three years, City electrical inspectors issued over 700 PV system permits.

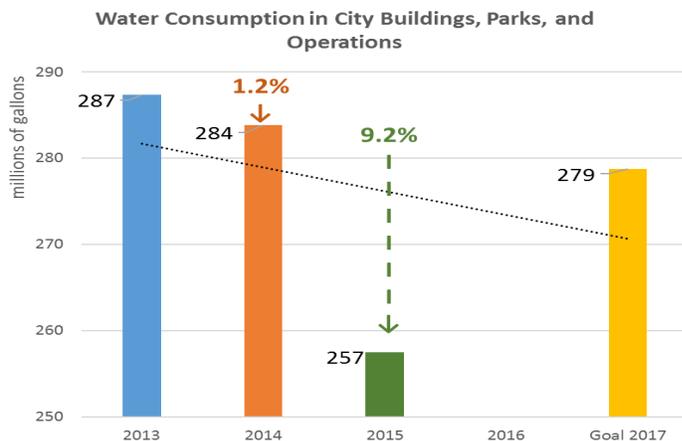
E8 Enable participants in the HUD Home Rehabilitation Project to reduce per capita energy use by 10 percent of end of year 2014 baseline.

The Home Rehabilitation Program managed eight home rehabilitation projects in 2015. All included energy efficiency components that would reduce per capita energy use. Home Energy Rating System testing is done on projects through a nonprofit (Energy Works) as part of a cooperation partnership. Measuring electric bills reductions would help illustrate their impact.

water updates

W1 Monitor water consumption in City facilities and other operations to identify monthly variances for departmental review.

W2 Reduce water consumption in City buildings, parks, and operations by 3 percent of the end of 2013 baseline rate .



☀ OBJECTIVE W2 ACCOMPLISHED

In 2014, Water Conservation offered a Qualified Water Efficient Landscaper (QWEL) trainings for the City. Thanks to Parks new zone management, staff was able to invest training and time to fine-tune irrigation systems, saving \$34,000 in water bills annually.

Parks and Water Conservation teamed up together to monitor and adjust irrigation heads in Apodaca Park, the Frank O’Brien Papan Community Center, and Twin Parks reducing water consumption by 9.2 percent or 27 million gallons.

Utilities has also enhanced enforcement of the water conservation ordinance with Utility employed Water Conservation Interns that field calls on the water waste hotline to make sure the whole community is conserving water.



W3 Continue reduction of non-revenue water from end of 2013 baseline level.

The percent of non-revenue water as a part of the total supply has increased by 7.2%. However, since the total amount of water supplied has decreased this change represents less gallons overall. Efforts are underway to install advanced metering infrastructure to determine if a customer has a leak.

W4 Increase green infrastructure capabilities in four City-owned properties.

W5 Put into place mechanisms to fulfill new National Pollutant Discharge Elimination System (NPDES) Permit requirements.

Green infrastructure (GI) is an approach to water management that protects, restores, or mimics the natural water cycle. The City Landscape Architect (LA) designed and constructed a bioswale in the Desert Trails parking lot and is coordinating an effort to convert a small catchment area into a GI project at Maag field by harvesting runoff from an adjacent parking lot.

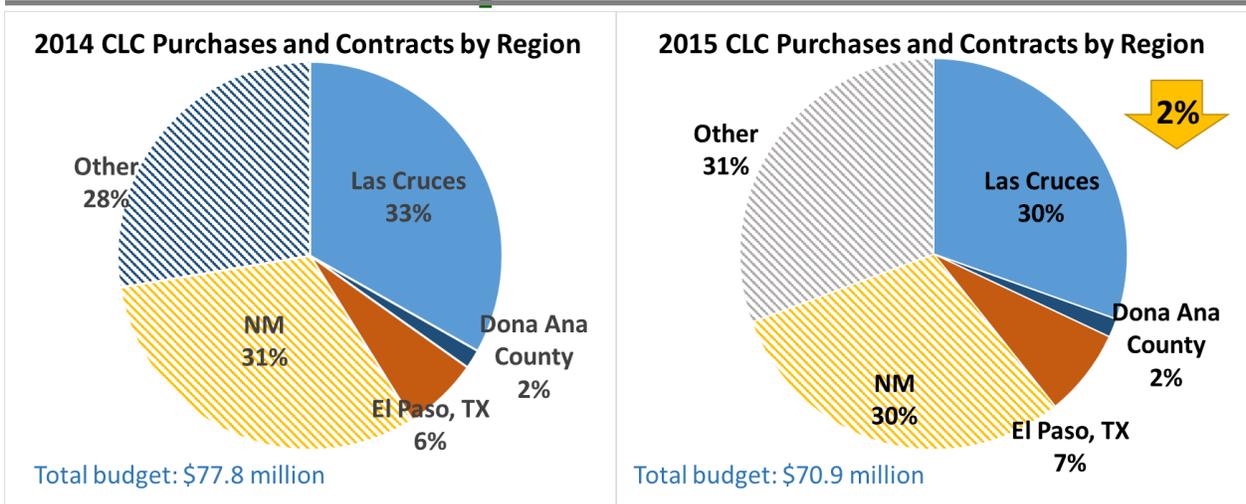
Public Works Project Development Staff, Sustainability Office and LA are also working together to incorporate elements of rain water harvesting into Downtown project.

Project Development has completed Phase 1 of the GIS Mapping of Storm Water Utilities, Phase 2 is anticipated to be completed by July 2016.



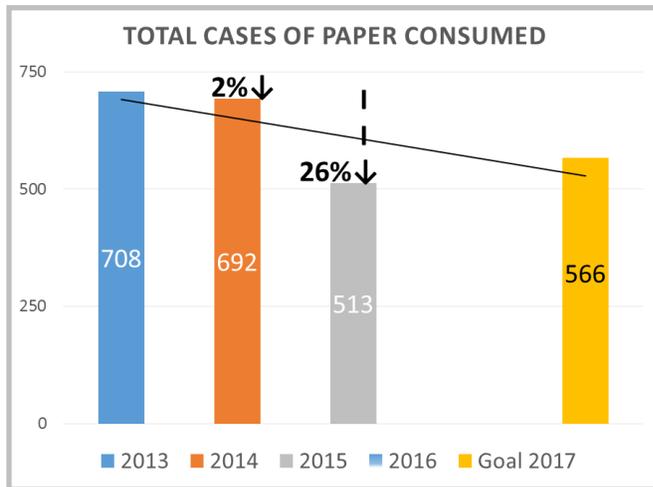
Curb cuts with grates (similar to picture) to bring water and facilitate pedestrian access will be a new feature to the downtown area.

materials updates



M1 Increase the use of local and green products through City purchases and contracts by 10 percent from end of year 2013 baseline.

The City understands that growing and strengthening local businesses and commerce within a community contributes to economic sustainability. This is the City’s first look at where City dollars are spent.

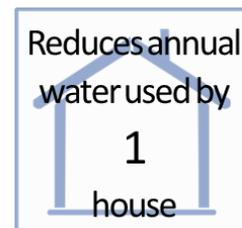
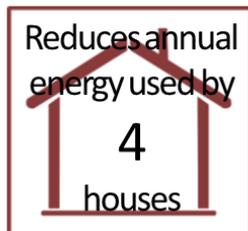


M2 Reduce paper consumption by 20 percent by department from 2013 end of year baseline.

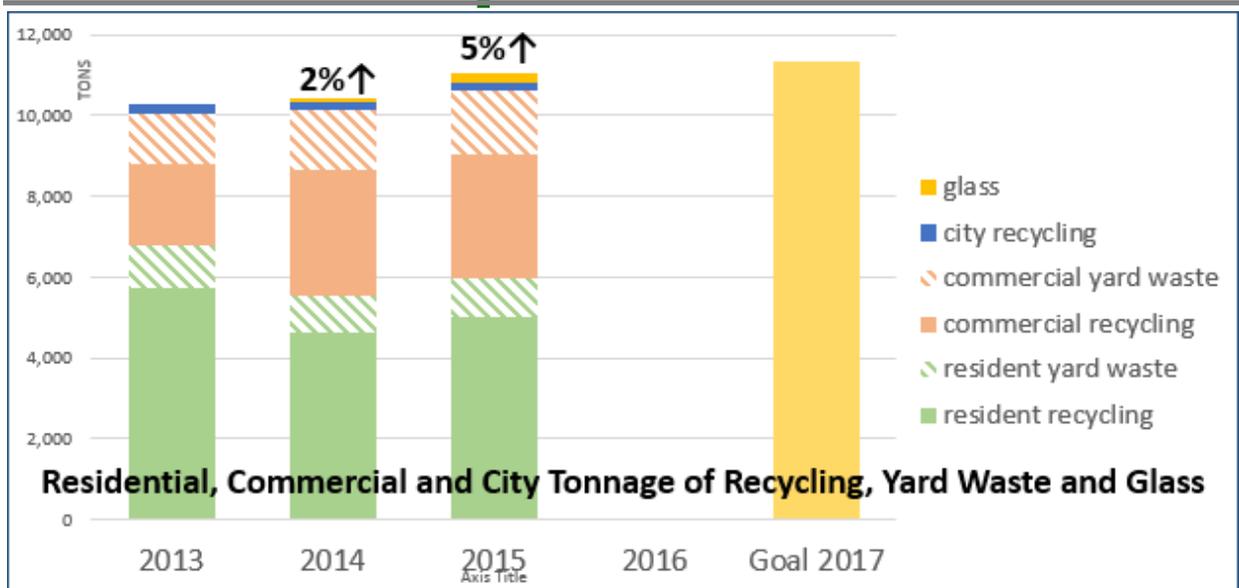
☀ OBJECTIVE M2 ACCOMPLISHED

Although paper may seem like a trivial measure, it is a reminder that simple choices have an impact on the planet. The City is now using 50% post consumer waste paper and is the only government entity in New Mexico to use recycled paper according to the state supplier. Two exemplary practices come from the Police Department that is no longer printing cases for review and Community Development that scans documents for permits instead of printing out a second hard copy.

A 28 percent decrease in 50% post-consumer waste paper used in the city....



materials updates



M3 Increase recycling by 10 percent in City, commercial and residential activities.

The City of Las Cruces and the South Central Solid Waste Authority are committed to lowering the amount of material that ends up in the landfill. This year, an increase in commercial recycling and yard waste along with glass repurposing program increased diversion by 5 percent. Residential recycling remains stagnant.



On average,
each volunteer
picked up
23
pounds of litter



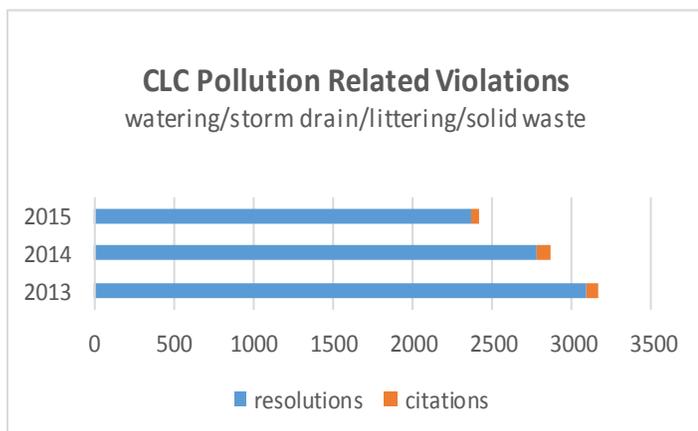
M4 Minimize water, land and air pollution resulting from construction and maintenance in City, commercial, residential activities.

This region continues to struggle with bacteria in waterways and dust (or PM10) and ozone in the air. The City continues to educate, create policies, and model and enforce best practices.

Staff is still working on ways to measure the impact of City, businesses', and residents' activities to minimize pollution, but is actively testing best practices.



180 participants and 15 tons of electronics were collected at this year's re-cycling event!



community updates



C1 Collaborate with developers to promote best practices when implementing new design standards.

C2 Increase awareness of, and encourage resident participation in, citywide sustainability programs and services.

☀ OBJECTIVE C2 ACCOMPLISHED

The Sustainability Office coordinated a yearlong certification process to collect data on over 500 metrics on environmental, economic, and social sustainability indicators. The City received a 3-star STAR Communities Award in October. Las Cruces was the first city in New Mexico to receive the award and the 40th in the nation. The Sustainability Office hosted a meeting in April with 65 participants from the City, nonprofit organizations and local citizenry to discuss the results and determine communitywide priorities and next steps.

Staff was a tour de force in many forums and venues throughout the year. Community Development coordinated BlueZones Walking Tours; Realizing El Paseo; Amador Proximo Blueprint; Downtown Development Code; and the Downtown Master Plan Revision. The Museums offered a variety of programs including SNAP! – Science, Nature & Art Program; Water Festival; StoryCorps; Crop & Cuisine; and Piro-Manso-Tewa tribal revitalization workshops. Attendance continues to grow within the Water Festival and the Lush and Lean programs from the Water Conservation Office.

125%
increase in
ticket revenues

334%
increase in
Facebook likes for
Downtown Events
this year!

C3 Provide amenities and activities to increase public perception of the downtown as focal point for community activity by 20 percent from an end of the year 2014 baseline.

Plain and simple, it is getting fun to go downtown! The Country Music Festival, Farmer's Market, the many Rio Grande Theater performances, museum programs and countless other special and creative programs all energize downtown.

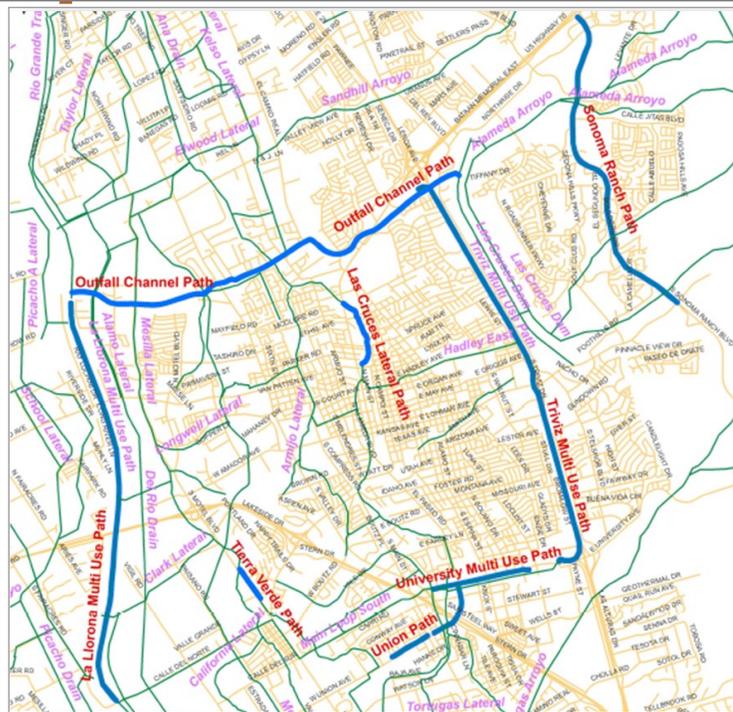
New investments in the Plaza, roads and callejitas will add the perfect backdrop to these many events.



community updates

C4 Complete multiuse loop within City limits to provide continuity and safety for bicyclist and pedestrians.

The Multiuse loop has new signage and an upgrade of porous pavement on the northern section of the La Llorana trail, and a study to improve the university section, this amenity is on the path to becoming an asset to Las Cruces.

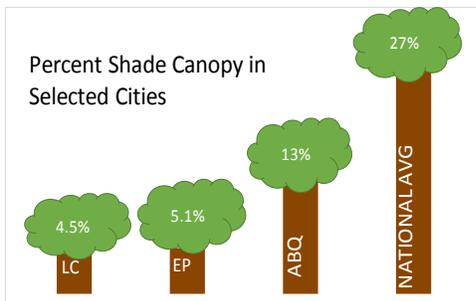


C6 Construct 3 primitive trail segments that additionally support wildlife habitat and serve as corridors (with necessary water, food, and shelters) on City property.



C5 Establish an average of 10 percent shade canopy coverage and structures in City parks and walkable main streets.

Parks and Recreation received a grant by the NM Forestry Department to compile a tree inventory in parks. In April 2016, the City gave away 100 trees at the farmer's market for residents to plant.



The Las Cruces Dam was constructed by the U.S. Army Corps of Engineers (USACE) in 1975 to reduce flood damages from flows originating in the Las Cruces and Alameda Arroyos. Another recent USACE project helped restore some of this lost wetland habitat by creating a seasonal wet meadow and pond using water from the East Mesa Water Reclamation Facility. The wetlands provide important habitat and improve water quality by acting as a natural filter. Additionally, migratory birds have an additional resting area along the Central Flyway, as many of the historic wetland resting areas have been diminished. New trails are slated for this summer.

community updates

C7 Evaluate mechanisms to enhance ecological restoration projects.

In 2011, the Southwest Environmental Center (SWEC) requested Las Cruces Utility to partner with them for a wetland restoration project. As part of the partnering, it was agreed that between 9 and 15 acre feet of groundwater rights could be provided for the wetlands project and contingent upon SWEC obtaining an Office of the State Engineer permit.

In May 2015, LCU received the OSE approved permit for the use of 9-15 acre feet of groundwater for the wetland restoration project for game and fish propagation. This year SWEC completed construction of 1-2-acre pond. The final step is to create a conveyance channel connecting the pond to the river.

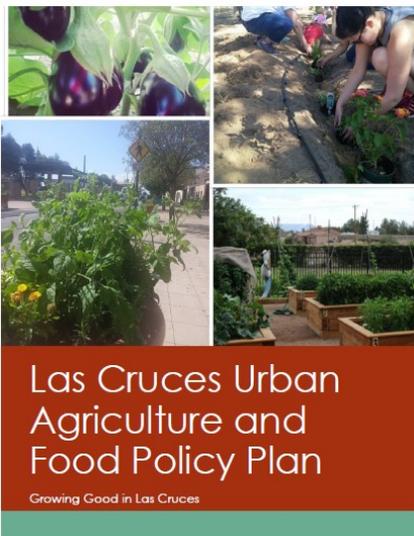


The City provides water rights to help establish wetlands.

C9 Increase the amount of local food purchased by the City by 5 percent from the end of year 2014 baseline.

☀ OBJECTIVE C9 ACCOMPLISHED

Senior Programs shared the bounty from the Munson Center Garden donating 960 pounds of produces for Munson Senior Center in 2015, an increase of 2014's 560 pound harvest. The produce enhances the menus with items that have been pre-approved through the senior funding grant. Items that are grown and not on the pre-approved menus are packaged and given to seniors to take home.



C8 Double the City land used for local food production from end of year 2013 baseline.

The City is also working with the local Food Council to develop a food policy that will improve the quality of life for all residents. The school gardening program continues to flourish, however, the City has not added any new gardens this year.



Munson Center Garden donated 960 pounds of produce in 2015.

PLAN	ACT	IMPACT	ACCOMPLISH	<h1 style="text-align: center; color: white;">energy updates</h1>
<p>E1: Monitor energy consumption in City facilities, fleet, and other operations to identify variances monthly for departmental review.</p>				
→	○			<p>Public Works Sustainability Office: Sustainability Staff has reorganized the utility management service data on Planet Footprint to reflect current facilities and accounts. The office can now use this tool to generate monthly reports and identify anomalies for departments.</p>
<p>E2: Decrease energy consumption and greenhouse gas emissions in City buildings and streets by 7 percent of the end of year 2013 baseline rate.</p>				
		○		<p>IT: IT’s installation of a citywide PC power management software continues to reduce annual energy use by 121,570 kWh and demand by 14 KW. This reduces the City’s annual energy costs by \$10,200.</p>
	→	→	○	<p>Public Works: With the Community Investment Projects, the City will initiate an ambitious set of installations that will save the City money, decrease the City’s dependence on fossil fuels, and reduce carbon emissions.</p> <p>The City will begin construction on five photovoltaic systems at various City facilities. This will increase solar power in the City by 620 KW – bringing the City’s renewable energy portfolio to 6.3 percent of the City’s total energy use. For three of these installations -- the Munson Center, Sage Café, and East Mesa Public Safety Complex – the PV systems will make the buildings net-zero. This means that the buildings energy consumption is equal to the amount of renewable energy created on site. The Las Cruces Regional Aquatic Center will also receive a sizable boost by having a potential 40 percent of its energy met by renewables. The small addition to the Las Cruces Convention Center installation will add 25 percent to its renewable energy supply and garner over \$9000 annually from its already established \$0.155 Renewable Energy Credits until 2023.</p> <p>Twelve buildings received a lighting retrofit converting old fluorescents to efficient LEDs saving the City almost \$30,000 annually. The City initiated a contract with an Energy Service Company (ESCO) to audit facilities and improve energy efficiency. With recommended conservation measures from the audit, the City may move forward with implementation promising 20 percent reduction in energy and water use.</p>

				<p>Transportation: Traffic Operations upgraded 100 – 400w HPS fixtures with 108w LEDs on Solano Drive from Main Street to University Avenue.</p> <p>An RFP for a City-wide LED conversion project is being drafted to retrofit all metered City streetlights to LED fixtures. Las Cruces International Airport replaced an obsolete navigational aid system with two sets of LED Precision Approach Path Indicators (PAPIs).</p>
	○			<p>Utilities: Las Cruces Utilities is implementing a 300 kw Solar Photovoltaic Project at the East Mesa Water Reclamation Facility to offset electricity consumption at the facility.</p> <p>Las Cruces Utilities will be constructing a new Water Quality Lab where it will house three Utilities sections. The new building will be built to a LEED Certified level, in order to minimize electricity and gas consumption.</p>
<p>E3: Review and prepare feasibility of alternate energy sources for utility facilities.</p>				
	○			<p>Utilities: No changes in trend. Las Cruces Utilities has moved forward with the design of the new 300 kw Solar Photovoltaic system as recommended by Preliminary Engineering Report. Construction anticipated early summer 2016. Estimated Cost is approximately \$2.1 million.</p>
<p>E4: Utilize utility waste streams to generate onsite energy.</p>				
	○			<p>Utilities: Jacob Hands Waste Water Treatment Facility Co-Generation Plant will be utilizing the waste methane gas and converting to electricity via two 330 KW engine generators. Engine generator and gas purification system manufacturer has been selected. Las Cruces Utilities staff is moving forward with final signatures on contract, in order to purchase equipment. Equipment to arrive 6-12 months after purchase, design moving forward to complete the infrastructure needed to install the equipment. Anticipated completion spring 2017.</p>
<p>E5: Reduce greenhouse gas emissions in city fleet to 5 percent below 2013 end of year baseline rate.</p>				
	○			<p>Parks and Recreation: Parks and Recreation purchased 2 electric vehicles (GEMs) in 2014 and will add two more GEMs in 2016. They are charged using a standard 110–volt wall outlet. The vehicles travel up to 25 mph and have a single charge traveling range of 30 miles. The vehicles serve the ball fields, Main Street, some trails, and assist at other sports events.</p>
	○			<p>Public Works: Public Works is participating in the Fleet Advisory Committee reviewing biodiesel options, possible use of hybrid and EV vehicles, and the anti-idling policy.</p>

→	○			<p>Transportation: Fuel for 2015 has decreased in all categories either from greater fuel efficiency (389,652 gallons of diesel - decrease of 9% from 2014 and 280,172 gallons of unleaded - decrease of 3% from 2014) or less use of fuel type (57,408 gallons of Biodiesel - decrease of 30% from 2014.)</p> <p>Number of vehicles for the City has not increased greatly. Departments requesting new vehicles, not replacements, need CM approval. For FY 2016, there will be a total of six new vehicles.</p> <p>Diesel and Unleaded Fuel: Decrease in diesel and unleaded due to fuel efficiency. Fleet will not purchase diesel vehicles unless the vehicle is towing heavy equipment. Owner’s manuals for new vehicles specifically state to not use biodiesel in vehicles.</p> <p>Biodiesel: To assist in the clogging of fuel filters from vehicles using biodiesel, Fleet will encourage units using biodiesel to be driven frequently, discourage idling of the unit, and encourage unit to use biodiesel only. Several vehicles switch between the biodiesel and diesel.</p> <p>Anti-idling: Fleet developed an anti-idling policy. Policy has been given to management. Heavy equipment vehicles ordered in FY 2017 will be equipped with an hour odometer along with mileage. The hour odometer will assist in regulating the anti-idling policy.</p> <p>Hybrids: At this time, Fleet staff has ordered two hybrids. One for Utilities and one for the motor pool. Fleet staff do not have the knowledge or skills to work on hybrid vehicles. The cost of maintenance and repairs would need to be outsourced, causing higher repair and maintenance cost to City Departments. Fleet will look into training for hybrid units to meet the future needs of green fleet policy.</p>
<p>E6: Increase use of alternative transportation options by 7 percent from end of the year 2013 baseline rates.</p>				
→	○			<p>MPO: Installed Automated Passenger Counters on two Roadrunner buses to better evaluate ridership trends and improve future route planning.</p> <p>Developing collection methods for measuring trail use through deployment of infrared counters on the trail systems. Obtaining bicycle use data to identify heavily used routes.</p>

→	○			<p>Transportation: RoadRUNNER Transit Ridership</p> <p>FY 2015: Fixed Route (FR) – 735,862; Dial-a-Ride (DAR) – 58,166</p> <p>FY 2014: Fixed Route (FR) – 735,238; Dial-a-Ride (DAR) – 54,354</p> <p>FY 2013: Fixed Route (FR) – 759,645; Dial-a-Ride (DAR) – 53,989</p> <p>In FY 2015, fixed route (FR) ridership was identical to the previous year. Both FY 2014 and FY 2015 had lower FR ridership than 2013. Ongoing road construction, which reduced route reliability, and lower fuel prices may be triggering the lower ridership. Dial-a-Ride continues to grow due to heavy demand for senior transportation.</p> <p>In FY 2016, a new fixed route plan will be implemented that will make the routes more reliable. The plan also is designed to reduce the amount of transfers required since the routes are better designed to directly connect high ridership destinations. Ironically, ridership may decline due to fewer transfers which are included in total ridership figures (also called unlinked passenger trips). The new service plan is phased to allow extending service hours when funding becomes available.</p> <p>Other updates include: DACC has joined the U-Pass program; Rider training programs have started at Senior Programs to teach senior how to use the less expensive fixed route service.</p> <p>“Where’s my Bus” capabilities have been added to the transit website using AVL (Automatic Vehicle Location technology). Efforts are still being made to develop a smart phone app.</p>
<p>E7: Promote alternative energy manufacturing and construction as a core business sector in the region.</p>				
○				<p>Economic Development: does not have promotional materials or educational programs, but collaborates with MVEDA and assists alternative energy projects (i.e. Positive energy, NRG and SunEdison). MVEDA promotes and attracts potential prospects within alternative energy manufacturing.</p>
○				<p>Community Development: At present, the City does not track businesses by NAICS codes. CD is considering adding this field with the Accela Land Management/ Permitting/Licensing software. Until the NAICS codes are in place and all businesses are tracked accordingly, reporting will be difficult.</p> <p>Since 2013, electrical inspectors have issued over 700 PV systems permits.</p>
<p>E8: Enable participants in the HUD Home Rehabilitation Project to reduce per capita energy use by 10 percent of end of year 2014 baseline rate.</p>				
→	○			<p>Eight (8) home rehabilitation projects were completed in 2015. All included energy efficiency components that would reduce per capita energy use. No electric bills were collected from Home Rehab clients.</p>

PLAN	ACT	IMPACT	ACCOMPLISH	<h1 style="text-align: center; color: white;">water updates</h1>
<p>W1: Monitor water consumption in City facilities and other operations to identify variances monthly for departmental review.</p>				
→	○			<p>Public Works Sustainability Office: Sustainability Staff has reorganized the utility management service data in Planet Footprint to reflect current facilities and accounts. The office can now use this tool to generate monthly reports and identifying anomalies for departments.</p>
<p>W2: Reduce water consumption in City buildings, parks, and operations by 3 percent of the end of 2013 baseline rate</p>				
→	→	→	○	<p>Parks and Recreation: has completed an inventory of all water meters on public property. Parks continues to monitor the water consumption and has adjusted heads and delivery time in coordination with the water conservation coordinator. All problems have been corrected within 24 hours.</p>
→	○			<p>Public Works: The Sustainability Office is working with an Energy Service Company (ESCO) to audit the energy and water consumption of various City facilities. The ESCO will identify areas were facilities are wasting water and make recommendations for improvements.</p>
→	→	→	○	<p>Utilities: Las Cruces Utilities replaced the old landscaping with a new Demonstration Garden utilizing low water use plants, trees, and turf. The Demonstration Garden also includes smart irrigations controllers to increase the efficiency of applied water. Water Conservation Staff has been collaborating with Parks Dept. staff to help them meet City water restrictions within their parks and medians. In addition, irrigation management training has been provided to Parks personnel, adjustments have been made to a few irrigation schedules which helps reduce evapotranspiration.</p> <p>Las Cruces Utilities has enhanced enforcement of the water conservation ordinance with Utility employed Water Conservation Interns that field calls on the water waste hotline.</p>
<p>W3: Continue reduction of non-revenue water from end of 2013 baseline level.</p>				
○				<p>Utilities: In 2013 baseline of 1,128,778,677 gallons of non-revenue water or 11.8% of the total water supplied. In 2015 there is 942,333,721 gallons of non-revenue water representing 19% of the total water supplied. However, the overall number of gallons of nonrevenue has decreased by 17 percent or 186,303,253 gallons of water. Hydrant flushing policy now requires metering where previously it was estimated by time and estimated flow. Additional metering from well start-up and shut-down flushing will be implemented during 2016 to further reduce non-revenue water. Meter audits continue to find and replace meters that are found to be registering inaccurately.</p>

				<p>Utilities will be taking its first Advanced Metering Infrastructure (AMI) project to the LCU Board at the June meeting for approval. This AMI Pilot Project Fixed Network will be in the east mesa where LCU will be installing approximately 1600 new water meters with Encoder Receiver Transmitters (ERTs). The data will be relayed via repeaters and collectors that will send the data to an information cloud. LCU will be able to download the data and immediately bill the customers. In addition, with the analytics software the data can be used to determine if the customer has a leak and follow up with them to get it corrected. LCU will also be acquiring Mesa Development Water System and release a contract to install all new water meters with ERTs (approx. 300). These new meters and ERTs will be able to send data to the fixed network of the pilot area.</p>
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W4: Increase green infrastructure capabilities in four City-owned properties.

	○			<p>Parks and Recreation: Parks assisted in Green Infrastructure 2-day training.</p>
→	→	○		<p>Public Works: Sustainability Officer and Landscape Architect coordinated a two-day workshop for City staff and other interested professionals on green infrastructure and low-impact development techniques to harvest rain water. Stream Dynamics and Watershed Management Group led the workshop using City properties to explore best management practices. NM Environment Department provided Stream Dynamics with a grant for this training.</p> <p>The City Landscape Architect (LA) coordinated an effort to convert a grey infrastructure small catchment area into a green infrastructure project at Maag field by harvesting runoff from an adjacent parking lot. The LA also designed and constructed a bioswale in the Desert Trails parking lot.</p> <p>Project Development Staff, Sustainability Office and Landscape Architect are working together to incorporate elements of rain water harvesting into Downtown project.</p>

W5: Put into place mechanisms to fulfill new National Pollutant Discharge Elimination System (NPDES) Permit requirements.

	○			<p>Utilities: No changes in trends. Las Cruces Utilities Industrial Pollution Prevention Program continues to monitor Commercial and Industrial waste water dischargers, in order to ensure that they are properly disposing of industrial waste, as well as protecting the City of Las Cruces waste water collection and treatment facilities.</p> <p>Las Cruces Utilities assisted PW's by mapping all the storm sewer infrastructure for the flood group.</p>
→	○			<p>Public Works: Project Development has completed Phase 1 of the GIS Mapping of Storm Water Utilities, Phase 2 is anticipated to be completed by July 2016. Project Development is discussing/coordinating with other MS4 permittees for further understanding and possible collaboration with the upcoming MS4 permit.</p>

PLAN	ACT	IMPACT	ACCOMPLISH	
<h1>materials updates</h1>				
M1: Increase the use of local and green products through City purchases and contracts by 10 percent from end of year 2014 baseline.				
→	○			Public Works: Facilities Management assistant operational analyst worked with finance to generate the local purchasing report for the City.
→	○			Finance: Finance helped generate a report of local purchases. Through consistent coding, future analysis will help provide data to support sustainable and economic development.
○				Economic Development: The ED Office has not implemented promotional or educational programs that cater to local or green products in the past year. NMSU has a strong sustainability program and might interested in creating green purchasing policies.
M2: Reduce paper consumption by 20 percent by department from 2013 end of year baseline.				
→	→	→	○	Community Development – shifted making paper copies to scanned copies as part of its permit process reducing its paper use by 47%
→	○			IT: The reimplementation of Munis will provide for automated workflows which the City previously did not take advantage of. This will result in less paper forms being manually routed through the organization.
→	→	○		Finance: implemented the use of providing specifications and plans to the contractors on jump drives and eliminating paper copies as of Jan. 1, 2016
→	→	○		Public Works: PW purchases all the paper for the City. This year, the City switched over to 50% post-consumer waste paper. This action alone saves 259 trees, 184 million BTUs, 25, 420 pounds of GHG and 12,186 pounds of solid waste.
→	→	→	○	Police - shifted from printing out its cases to reviewing them directly on the computer reducing its paper use by 57%.
M3: Increase recycling by 10 percent in City, commercial and residential activities.				
	○			Parks and Recreation: Parks & Recreation made a commitment to participate in the Bags to Benches program for at least one year, and now three years later, the program is coming to an end. Parks & Recreation managed the program and received 5 benches. Given the high cost of running the program, Parks and Recreation needed to terminate the program.
	○			Public Works: PW delivers waste concrete, asphalt, dirt, gravel and brick, also known as cleanfill, to the old Foothills Landfill. This cleanfill helps remediate and refill a 40-acre hole at the landfill, created when soil was dug out and used to "cap" and permanently close the old landfill. Separating cleanfill saves on "tipping" fees and lowers the volume of wasted head to the Corralitos landfill.

				Public Works provides recycling bins in buildings, and assists with general recycling and proper disposal of fluorescent bulbs. Repurposing options for other construction materials contributes to LEED certification points.
	→	○		<p>SCSWA: In 2015, CLC facilities recycled an estimated 206 tons of materials of recyclables. This is lower than reported tons from 2015. On average, recycling dumpsters were filled to 53% capacity. Much of the material found was cardboard/paper material.</p> <p>Promotion includes 4x4 ads run in the LC Sun News highlighting e-cycling, scrap metal, glass and recycling education. New scswa.net website includes a “News” section with articles relating to recycling and waste management update two to three times a month. Recycling coordinator developed a banner display for Target to redirect residents with glass to our drop-off locations – banner was on display for 3 months; glass recycling has been made available to wine festivals such as the La Viña Wine Festival, Southern NM Wine Festival and the Harvest Wine Festival.</p>
	○			<p>Transportation: Streets continues to use its invention “the sweeping grizzly” to sift trash from the dirt that sweepers pick up on a daily basis. Dirt removed from the sweepings is used for fill dirt, sand bags, or cleanfill. This lowers the volume and trips to the Corralitos landfill, saving the City \$40,000 annually.</p>
	→	○		<p>Utilities: Recycling and yard waste diversion have stayed at a steady 15 percent over the past three years. Despite innovative options with a glass crusher and new tire shredder operations, municipal waste numbers have also remained constant.</p>
<p>M4: Minimize water, land and air pollution resulting from construction and maintenance in City, commercial, residential activities.</p>				
	→	○		<p>Community Development: The Environmental Compliance Officer has been working with the contractors at building sites enforcing the erosion control ordinance, but has not been tracking use of best practices. The Compliance Officer is developing a demonstration project at the Amigos de Viejo Subdivision to reduce blowing dust.</p>
		○		<p>Parks and Recreation: The Keep Las Cruces Beautiful Program (KLCB), in partnership with Las Cruces Public Schools, New Mexico State University, Dona Ana Community College, various volunteer groups and community service individuals provide prevention education, litter cleanup, and graffiti abatement throughout the community.</p> <p>Recently, KLCB presented the educational component to two elementary schools, we hosted the Great American Cleanup, and offered the Recycle / Reuse Fashion show. The KLCB Clean-up Events showed a 79% increase volunteers from 2014 and a 17% in litter tonnage.</p>
		○		<p>Police: Codes worked typically finds a 97% resolution for trash, litter, watering, and municipal storm violations, only needing to provide citations 3% of the time.</p>
		○		<p>Public Works: Project Development stormwater/flood team participated in this year’s City Water Festival. Staff continues to inspect all storm water infrastructure for sediment, debris and floatables. Preparation for the upcoming new MS4 permit is ongoing and databases are being created of video and site inspections.</p>

	○			Transportation: Fleet Services delivers 50-75 tires to SCSWA for shredding on a bimonthly basis. Used oil is collected and continuously recycled. Currently recycling companies are charging Fleet for pick-up of used oil, due to oil prices being so low.
→	○			Utilities: The new glass recycling program and newspaper articles and advertisements have done little to increase the diversion rate.

PLAN	ACT	IMPACT	ACCOMPLISH	community updates
C1: Collaborate with development community to promote best practices when implementing new design standards.				
○				Community Development: The Design Standards are still under development and incorporating the use of Best Practices.
→	○			<p>Economic Development: The City’s building codes address various aspects of sustainable/green buildings. The City has adopted the energy conservation code. One of our partners, NMSU, is in the process of Green Building Design Guidelines. Economic Development Office was one of four City departments that participated in the USA program 2014-2015, it was a complete street project. Our partners were all three Chambers of Commerce, LCAR (realtors) and NMSU.</p> <p>Even though the ideas did not translate into a redesign of the El Paseo corridor, we did a lot of public and business community engagement. Dan Schneider of Comet Cleaners mentioned forming a merchants’ association or, “super chambers,” in his own words. I don’t know if that came to fruition, though. We also had a commercial development consultant do a public event which was a great hit (Michele Reeves).</p>
				Police: Officers are taking a more proactive approach on zoning issues. Having a Codes Officer stationed at Community Development has helped educate the field officers to find resolutions to problem areas.
	→	○		Public Works: Public Works is using complete street design standards in its road construction and collecting data on the miles created. Debriefing meetings at the close of projects are capturing best management practices that can be applied to new standards development such as the use of green infrastructure.
C2: Increase awareness of, and encourage resident participation in, citywide sustainability programs and services.				
	→	○		Community and Cultural Services: The Museums have offered a variety of programs including: <i>Oye! Celebrating Visions for the Future</i> ; SNAP! – Science, Nature & Art Program; Water Festival; StoryCorps; Crop & Cuisine; and Piro-Manso-Tewa tribal revitalization workshops.

				<p>Numbers are down in 2015, partially due to Branigan Cultural Center building closures for approximately 3 months, and because staff has switched to a more accurate counting method (door counters to hand counting).</p> <p>Visit Las Cruces supports many cultural activities ranging from the Country Music Festival to the Symphony. We have been involved with Salsa Fest, Chile Drop and a host of other events.</p> <p>Senior Programs hosted the Network Volunteer Fair conducted downtown Las Cruces. Attendance continues to average approximately 500 residents. Volunteers sustain and enhance the delivery of quality services to the Las Cruces community through meaningful volunteer engagements.</p>
	→	○		<p>Community Development: public engagement for the following planning projects: Comprehensive Plan Update including recent BlueZones facilitated Council District Walking Tours; Realizing El Paseo; Amador Proximo Blueprint; Downtown Development Code; Downtown Master Plan Revision</p>
		○		<p>Utilities: Attendance continues to grow within the Water Festival and the Lush and Lean program where the Water Conservation Coordinator teaches the public about water conservation. These events are publicized in various forms such as the City Website, paper pamphlets, and news articles in the Las Cruces Sun News and the Las Cruces Bulletin. Water Conservation has participated in other City sanctioned events by handing out water conservation information and providing education through verbal and written communication.</p>
	○			<p>Parks and Recreation: Special events and free public offerings have continued to increase, Free swim at outdoor pools, the Teen Mobile Unit is in service</p>
		→	○	<p>Public Works: The Sustainability Office coordinated a yearlong certification process to collect data on over 500 metrics on environmental, economic, and social sustainability indicators. The City received a 3-star STAR Communities Award in October. Las Cruces was the first city in New Mexico to receive the award and the 40th in the nation. The Sustainability Office hosted a meeting in April with 65 participants from the City, nonprofit organizations and local citizenry to discuss the results and determine communitywide priorities and next steps.</p>
		○		<p>SCSWA: Annual Electronics Recycling Collection event – 180 participants and approximately 15 tons of electronics collected.</p> <p>Glass recycling increased from 100 tons in 2014 to 240 tons in 2015 due to increased ads via the LC Sun News, scswa.net website banners, and in-store display at Target. Redeveloped website (scswa.net) and improved user-friendliness. Created Facebook page; Developed new 4x4 color ads targeting e-cycling, glass recycling, scrap metal and recycling education; Developed school recycling newsletter – distribution to begin fall/winter 2016.</p>
<p>C3: Provide amenities and activities to increase public perception of the downtown as focal point for community activity by 20 percent from an end of the year 2014 baseline.</p>				
		○		<p>Community and Cultural Services: Given the Museums prominent position in the downtown, there are many opportunities to offer special programs such as: ictograff; Callecita beautification; Main Street Open House events; Downtown</p>

				women’s history walking tours; Arbor Day/100 Trees in the Heart of Las Cruces; Downtown charrettes; National Night Out; and Amador Hotel events.
		→	○	Community Development: Increasing attendance at Country Music Festival, Blazin’ Beer Fest, Wednesday evening Farmers and Crafts Market.
	→	○		Public Works: Public Works has hired a consultant to complete the thirty percent design of the two-way conversion of Church and Water Street including different options of the proposed street, parking layout and callecititas improvements. The final design is anticipated to be complete by November 2016 and construction to start in February of 2017.
C4: Complete multiuse loop within City limits to provide continuity and safety for bicyclist and pedestrians.				
	○			Community Development: Obtained recertification for Bronze-level Bike Friendly Community in 2014.
○				MPO: adopted Phase A report for University Avenue which moves regions closer to project development that could utilize federal funding. Processing Metropolitan Transportation Plan amendment that would identify priority route for final loop alignment.
	○			Public Works: Public works has improved the multiuse trail with porous pavement from La Llorana Park north to the intersection of the outfall channel. Signage has also been added along the trail.
C5: Establish an average of 10 percent shade canopy coverage and structures in City parks and walkable main streets.				
○				Parks and Recreation: Tree inventory of public properties is 90% complete. In April 2016 we gave away 100 trees at the farmer’s market for residents to plant.
C6: Construct 3 primitive trail segments that additionally support wildlife habitat and serve as corridors (with necessary water, food, and shelters) on City property.				
→	→	○		Public Works: The City received a grant through the NM Department of Transportation Alternative Program funding to expand the existing trail system. The improvements will include building 3.1 miles of trail, signage, benches, trash cans and doggy waste stations. The expanded trail system will connect the existing trail system (Sagecrest Park to the wet meadow habitat) to the upper basin wetland area, to the overlook area at the top of the Las Cruces Control Dam.
C7: Evaluate mechanisms to enhance ecological restoration projects.				
		○		Utilities: In 2011, the Southwest Environmental Center (SWEC) requested Las Cruces Utility to partner with them for a wetland restoration project. As part of the partnering, it was agreed that between 9 and 15 acre feet of groundwater rights could be provided for the wetlands project and contingent upon SWEC obtaining an Office of the State Engineer permit. In May 2015, LCU received the OSE approved permit for the use of 9-15 acre feet of groundwater for the wetland restoration project for game and fish propagation. This year SWEC completed construction of 1-

				2-acre pond. The final step is to create a conveyance channel connecting the pond to the river.
C8: Double the City land used for local food production from end of year 2013 baseline.				
				<p>Community and Cultural Services: Senior Nutrition is working with the Munson Community Garden to provide fresh produce as an enhancement to the congregate meal service at the Munson Senior Center.</p> <p>Community and Cultural Services: Senior Programs shared the bounty from the Munson Center Garden donating 960 pounds of produces for Munson Senior Center in 2015, an increase of 2014's 560 pound harvest. The produce enhances the menus with items that have been pre-approved through the senior funding grant. Items that are grown and not on the pre-approved menus are packaged and given to seniors to take home.</p> <p>Museums: offered several programs related to food including: Crop and Cuisine; fall garden; back-to-school lunch gardens at National Night Out; interpretive garden (in process); and Native Plants talks.</p>
	○			<p>Parks and Recreation: In 2014, the Sage Café on the East Mesa became the 4th community garden. No new community gardens were established in 2015.</p>
C9: Increase the amount of local food purchased by the City by 5 percent from the end of year 2014 baseline.				
	→	○		<p>Community and Cultural Services: There has not been a percent increase over the last several years, but actually a decrease. However, it is still over 5%. The reasons for decrease are several –</p> <ul style="list-style-type: none"> • When our food vendor cannot deliver the amount of food needed then we supplement from local vendors. <p>Produce use is dependent on the menu and it can change often.</p> <p>Senior Programs continues to purchase food items from Roberto's, Wal-Mart, La Fiesta Bakery, and Southwest Cash and Carry. Senior Programs has spent the following amounts on local program food purchases: FY 16 -- \$3,151.81 (to date) FY 15 --\$5,571.58 FY 14 -- \$4,570.30</p> <p>La Semilla and Sol Y Tierra at this time were not able to meet the demand for the quantity and type of fruits and vegetables served on our senior menus.</p>