2016
Green City Annual Progress Report

June 6, 2017

Sustainable City Committee

City of Signal Hill
2175 Cherry Avenue, Signal Hill, CA 90755

Section I

Achieved Local Goals

Summary: 9 of the 21 action items have been achieved. The completion of 9 goals qualifies Signal Hill to be a certified One-Leaf Green City by the Urban Environmental Accords Standards (see Signal Hill Report Card, next page).

1. Renewable Energy

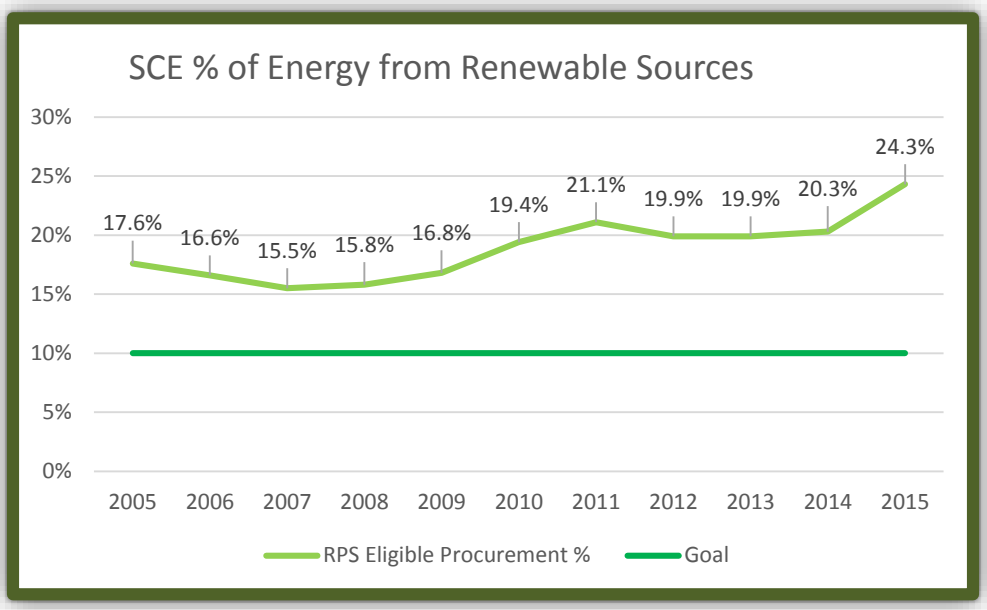
Signal Hill Goal: Demonstrate that the City's energy provider is in compliance with California State goals to increase the use of renewable energy, and that it will meet the 10% target by 2012.

Status: ☘ Achieved July 2011. **Maintained achieved status in 2016 by exceeding minimum 10% use of renewable energy.**

Justification: Signal Hill's electrical utility is Southern California Edison (SCE). SCE was required by State mandate to deliver 20% of its energy resources via renewable energy by 2010. In 2005 it achieved 17.6%. The following chart illustrates that SCE has exceeded the local goal of 10% renewable energy use from 2005 to 2012.

California's Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill 1078, accelerated in 2006 under Senate Bill 107, and expanded in 2011 under Senate Bill 2. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators, to increase procurement from eligible renewable energy resources to 33% of total procurement by 2020. **Data for 2015 Southern California Edison's (SCE) renewal portfolio standards is now available from the California Public Utilities Commission. The 2016 data will be incorporated into the 2017 annual report.**

Renewable Energy (Goal = 10%)	
Year	**Procurement %**
2015	**24.3%**
2014	20.3%
2013	19.9%
2012	19.9%
2011	21.1%
2010	19.4%
2009	16.8%
2008	15.8%
2007	15.5%
2006	16.6%
2005	17.6%



Data and Research

- In 2012, SCE generated 19.9% of its power from renewable sources, a 2% decrease from 2011. In 2013, SCE maintained the 2012 percentage by generating 19.9% of its power from renewable sources.

- The City's new police station opened in 2013 and features a solar car port structure that generates 55 KwH of power. This offsets an estimated 33% of its electrical usage. This facility makes use of natural daylight and includes a solar panel system. The system was activated on June 26, 2013. In 2014, the Police Department received LEED certification. The photovoltaic system generates approximately 30% of the total energy use in the daytime and 15% of the total energy usage overall.

- Las Brisas, an award winning affordable housing development, has installed three solar power systems on its Community Center and Phase 2 building. The three systems generate a combined 46 KwH of electricity for common areas such as hallways, exterior lights, and laundry room. The installations are predicted to offset up to 89% of the Community Center's power and up to 13% and 46% for Las Brisas II South and North, respectively. Abode Communities, manager and owner of Las Brisas, was selected by the Sustainable City Committee to receive a Sustainability Award, which was presented to them on April 19, 2011 by the City Council.

- In 2010, the City issued two permits to install residential solar power systems, and two systems were installed in 2011-2012. In 2013, building permits were issued for seven residential solar systems. In 2014, 51 building permits were issued for solar systems (28 for Aragon and 23 for residential/commercial buildings). EDCO installed solar systems at their administrative terminal. In 2015, 24 solar permits were issued (23 for residential and one for commercial buildings). **In 2016, 26 solar permits were issued (25 for residential and one for commercial).**

- Phases 1 and 2 of the Signal Hill Collection have been completed. This is the City's first LEED certified multi-family housing development. These homes are all-electric and feature solar panels and are pre-wired for electric vehicle chargers. In 2013, construction of the Signal Hill Collection was completed and construction of Aragon townhomes continued. Both projects include solar systems for all of the dwellings. The Sustainable City Committee selected both projects as Sustainability Award winners for their energy efficient designs. The Signal Hill Collection was presented with a Sustainability Award at the April 3, 2012 City Council meeting and the Aragon townhomes was presented with a Sustainability Award at the September 17, 2013 City Council meeting.

2. Recycling

Signal Hill Goal: Demonstrate that the City consistently meets California State waste diversion targets of 50% by 2012.

Status: Achieved July 2011. **Maintained achieved status in 2016 by exceeding minimum 50% waste diversion.**

Justification: In 2005, the City had a diversion rate of 43%. In 2006, the rate was 59%. Beginning in 2007, the equation used by the California Department of Recycling and Recovery changed from the percentage diversion rate to a pounds per person per day (PPD) measurement.

The target in this equation is to stay under 8.9 PPD, which represents 50%. Under both scenarios the City met the target of the local goal every year except 2007.

- In percentage terms, 8.9 pounds per person per day (PPD) represents 50 percent diversion, so 4.6 PPD equates to approximately a 74.1 percent diversion under the former system. **Data for waste diversion rates typically runs one year behind. Therefore, the 2015 data is the most current for the 2016 report. In addition, the State 2012-2015 AB939 compliance report was recently completed. The City received a compliance letter from the State Department of Resources, Recycling and Recovery regarding compliance with AB 939 diversion rates.**

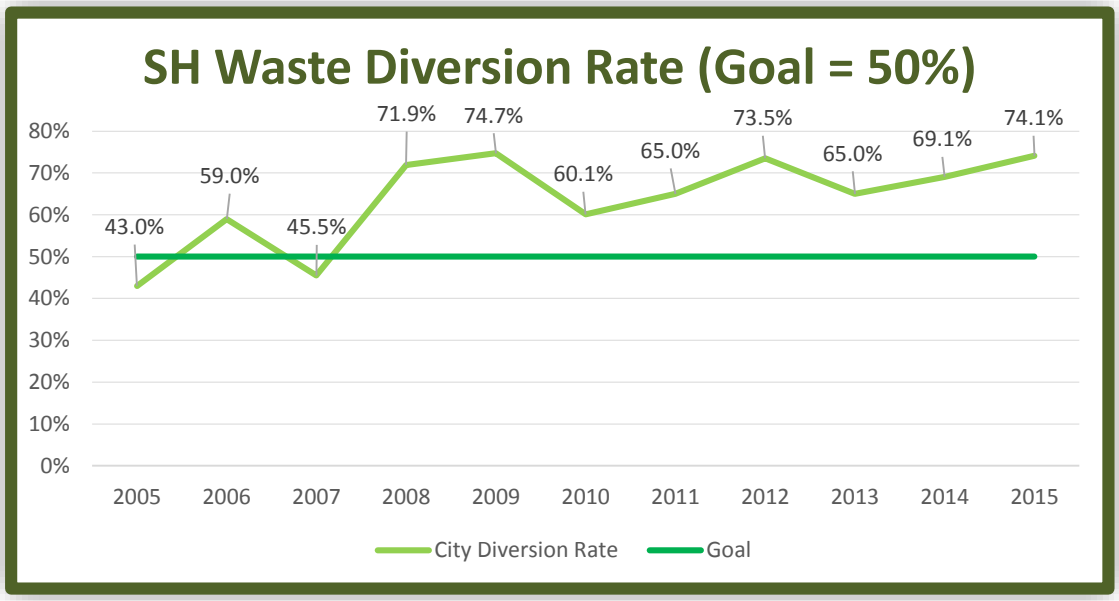
- Materials Recovery Facility (MRF) collects from residents and businesses. Each cycle, 10% of waste is sent to Southeast Resource Recovery Facility (SERRF) for waste to energy and City credit for waste diversion. **In 2016, EDCO, the City's waste conversion provider diverted a total of 18,187 tons of waste citywide, with a diversion rate of 54.9%.**

- The State mandated diversion rate is 8.9 PPD or 50%. The City has achieved, or exceeded the State mandate every year since 2006. **In 2015, the City achieved a per capita diversion rate of 4.6 PPD (74.1%).**

Waste Diversion Rate (Goal: 8.9 PPD = 50%)

Year	Diversion Rate
2015	**4.6 PPD ****
2014	5.5 PPD
2013	6.3 PPD
2012	4.7 PPD
2011	5.6 PPD
2010	7.1 PPD
2009	4.5 PPD
2008	5.0 PPD
2007	9.7 PPD*
2006	59%
2005	43%

* In 2007, the measurement equation was revised, however, the City exceeded the local goal.
**2016 data will not be available until July of 2017.



Data and Research

- In 2012, the EDCO recycling and transfer facility on California Avenue began operations, allowing the large scale sorting of recycling materials to occur in Signal Hill. The City contracts with EDCO for its waste hauling and recycling needs. EDCO's residential recycling program accepts glass, cardboard, newspapers, cans, plastic containers marked 1 to 7, and mixed paper. In 2013, EDCO added the household hazardous waste program. In 2014, the Sustainable City Committee selected EDCO for a Sustainability Award for their Household Hazardous Waste Program, and the City partnered with EDCO in the production of an informational video about the program. **In 2016, EDCO continued to offer their transfer facility as a drop-off for household**

hazardous waste. The drop-off is hosted by Los Angeles County every 2nd Saturday of the month. EDCO also offers electronic waste collections, and on-call bulky item pick-up. Home Depot also has a take-back program for used compact fluorescent lamp bulbs (CFL).

- On February 2, 2010, the City approved a Sustainable Purchasing Policy. **In 2016, sustainable purchasing is ongoing and includes such products as:**

    - Printer/copier toner cartridges
    - Ink cartridges
    - Copier paper/steno pads/envelopes/Post-Its
    - 3-ring binders
    - Dividers/folders/document organizers
    - Trash bags/cleaning wipes/tissues
    - Pencils/pens
    - Desk trays/phone stands

- **On March 12, 2016, the first of two Mayor's Clean-Up events was held in the Crescent Heights Historic District, with base camp at the former Fresh & Easy parking lot. The events are sponsored by the Sustainable City Committee (SCC). The Long Beach Islamic Center provided ample volunteers who joined volunteers from the City Council, Planning, Parks and Recreation, and Civil Service Commissions, SCC members, and local residents.**

Spring Mayor's Clean-up Event: Fresh & Easy

Fall Mayor's Clean-up Event: Raymond Arbor Park

- **On September 24, 2016, the second Mayor's Clean-Up event was held at Raymond Arbor Park. A total of 48 volunteers joined in the effort to pick-up trash and keep the streets clean. Volunteers included City Council members, Planning, Parks and Recreation and Civil Services Commissioners, SCC members and local residents.**

3. Green Building

Signal Hill Goal: Adopt a policy to meet a minimum LEED Silver standard for the construction of all new municipal buildings.

Status: Achieved May 2012. **Maintained achieved status in 2016 through compliance with the City's Municipal Green Building Policy.**

Justification: The SCC drafted a Municipal Green Building Policy for construction of all new municipal buildings, new construction and other commercial and residential additions. The City Council adopted the Municipal Green Building Policy in May 2012.

Data and Research

- In May 2012, the City Council approved the Municipal Green Building Policy for construction of all new municipal buildings, new construction and other commercial and residential additions.

- The State previously mandated the implementation of the CALGreen building standards. It establishes a minimum green building standard for both residential and commercial construction. In 2015, the City adopted CALGreen's most recent 2013 edition which covers both residential and commercial construction in the public and private sectors, as well as schools, hospitals and other public institutions. **In 2016, the City continued to implement the CALGreen building code through building plan check. 26 permits for rooftop solar energy systems were issued and fuel cell generators were installed at each of the two Home Depot stores.**

- The City pursued LEED certification for its new police station. In 2013, the new Signal Hill Police Department opened for operations and featured solar collectors. In 2014, the Police Department received LEED certification for the facility. The new police station is more than double the size of the old station and operates 24 hours per day. The energy demand from SCE is 30% lower per cubic foot than the old station (old police station: 3.93 kWh/cf and new police station: 2.82 kWh/cf). Photovoltaic system (solar power) supplies 30% of the daytime power supply and 15% overall.

- The proposed library will be designed to meet LEED standards. In 2015, funding for a new library, from the Signal Hill Redevelopment Agency 2011 Tax Allocation Parity Bond in the amount of $8,835,000, was approved. The building was initially designed to both LEED standards. These standards have become more rigorous and design revisions are underway. **In 2016, the library was demolished and its operations were temporarily relocated to the Signal Hill Community Center. Furthermore, the new plans were finalized.**

4. Urban Planning

Signal Hill Goal: Adopt urban planning principles and practices of smart growth in the General Plan that advance higher density, mixed-use, pedestrian, bike-friendly, and disabled-person accessible neighborhoods, and coordinate land use and transportation with open space systems for recreation and ecological restoration.

Status: Achieved October 2011. **Maintained achieved status in 2016 through compliance with General Plan smart growth policies.**

Justification: Policies in the Land Use Element and Circulation Element of the General Plan advance the principles of smart growth.

Data and Research

The main element that addresses mixed use and smart growth principles is the Land Use Element, which was last updated in 2001. The goals section contains the following policies that encourage higher density and mixed use developments:

- Policy 1.2 – Provide opportunities for a variety of residential densities and housing styles. In 2014, the City selected Meta Housing as the developer for 72 new affordable housing units and small community garden. They will strive to attain LEED certification for all of their buildings. In addition, Meta applied for additional funding through the Affordable Housing and Sustainable Communities Program Cap-and-Trade funds through Metro. In 2015, although Meta Housing did not receive Cap-and-Trade funding, they did receive tax credits through the California Tax Credit Allocation Committee and construction is underway. The buildings will meet or exceed all CALGreen requirements for multi-family housing. The project is located near a transportation line and in an area that is within .25 mile of schools, parks, cultural, civic and retail opportunities**. In 2016, construction continued on the 72-unit affordable housing project at 1500 E. Hill Street. The project is expected to be ready for occupancy in fall of 2017.**

- Policy 1.3 – Support the maintenance of residential areas and encourage infill of vacant lots close to transportation, municipal facilities, and shopping opportunities. In 2014, the Aragon 81 unit townhome development was completed, and one single-family dwelling infill housing project began construction. In 2015, SummerHill Homes, the developer for Crescent Square, continued to work on the construction plans for the development. Construction is estimated to start in 2016 for 25 detached single-family dwellings, adjacent to Town Center West. **In 2016, plans were completed and construction began on the two model homes for the 25 detached single-family dwelling project. Completion of the model homes is expected by mid-2017.**

- Policy 1.4 – Provide for density bonuses, which exceed maximum densities specified in the land use plan and classification system, for development projects for low and very-low income or “special need” households in low, medium and high-density land use classifications. The 2013-2021 Housing Element commits the City to adopting a density bonus ordinance early in the eight year cycle.

- Policy 1.12 – Increase the amount and improve the network of public and private open space areas for active or passive recreation. In 2014, construction was completed and the new community garden opened to the public. **In 2016, a grant for trail renovations in the Bixby Ridge neighborhood was extended with improvements to be installed in 2017.**

In addition, construction began on the Crescent Square development which includes a trail system connection to the Town Center West retail center.

- Policy 3.4 – Promote mixed-use development and ensure compatible integration of adjacent uses to minimize conflicts. In 2014, construction was completed on the Aragon high density housing project. The Aragon and Pacific Walk projects replaced blighted commercial buildings and provided a cul-de-sac on Orizaba Avenue to reduce cut through traffic in the adjacent residential areas. **In 2016, Signal Hill Petroleum (SHP), together with the City and their design consultant KTGY began conceptual design work for the long anticipated Heritage Square Central Business District, envisioned in the City's General Plan to be a unique, specialty commercial project fronting on Cherry Avenue with a residential element to the west adjacent to the Crescent Heights Historic District.**

- Policy 3.17 – Promote "smart growth" principles that encourage development that is economically viable, creates a sense of community, and preserves natural resources. Smart growth includes narrower streets, mixed uses, smaller setbacks, open spaces, habitat preserves and parks, infill development, compact commercial centers, and the reuse of brownfields. **In 2016, the concept plan for the Heritage Square Central Business District project incorporated "smart growth" principles. See response to 3.4 above.**

The Circulation Element addresses walkable and disabled-accessible neighborhoods and transportation, and was recently updated in 2009. It contains the following policies that help to meet the Signal Hill goal:

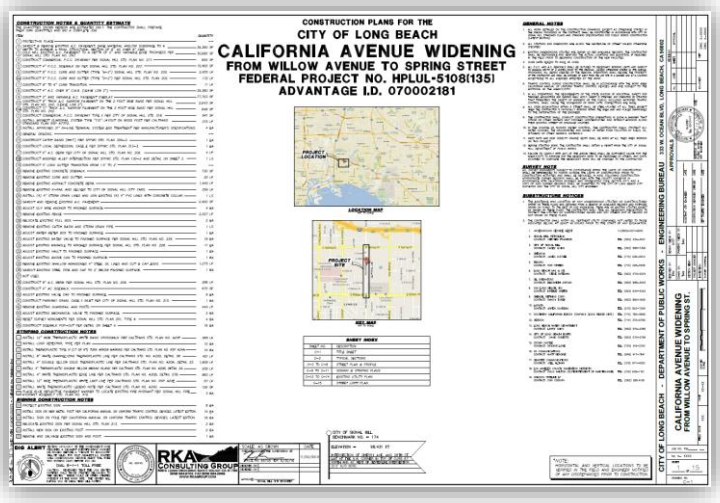
- Policy 1.b – Require that new development include circulation and utility system improvements, including dedication of land for widening of roadways for

pedestrian and bicycle facilities, where appropriate, and construction of new public works facilities reasonably related to the impacts of the development and intended use on the existing systems. In 2014, the City approved plans for Crescent Square. The project includes modular wetland filtration systems which will be used to treat stormwater and green streets design which includes permeable pavers to provide additional source control for stormwater runoff and pollutant loads.

- Policy 1.g – Examine shared parking strategies for developments in mixed-use areas.

- Policy 2.f – As areas develop, or are redeveloped, require the construction of "complete streets," which serve all users of the roadway, including motor vehicles, pedestrians, bicyclists and others.

- Policy 3.a – Promote healthy, energy-efficient, and sustainable living by promoting the expansion of the city trails and walkways system. In 2015, the Cherry Avenue Widening Project was completed. The project relieves congestion, reduces emissions and eliminates a potential flood hazard at the intersection of Cherry Avenue and Pacific Coast Highway. The new median was planted with drought tolerant landscaping that excludes turf and meets the City's adopted State Model Water Efficient Landscape Ordinance. **In 2016, final approval was given by CalTrans for the plans for a $1.0 million Federal Highway Administration grant widening and reconstruction project on California Avenue between Willow and Spring Streets. The Long Beach City Council awarded the construction contract for this project at their December 2016 Council meeting. As a result of the pending widening project, traffic flow will be improved thereby reducing emissions.**



- Policy 3.b – Preserve existing public access to the trails system to promote recreational walking and hiking, fitness, and alternative modes of

transportation. In 2014, the City received a grant of $109,000 for trail renovations from the Los Angeles County Competitive Trails Program. **In 2016, a grant for trail renovations in the Bixby Ridge neighborhood was extended, with improvements to be installed in 2017. In addition, construction began on the Crescent Square development which includes a trail system connection to the Town Center West retail center.**

- Policy 3.g – Prioritize pedestrian and bicycle projects that help meet the requirements of the Americans with Disabilities Act.

- Policy 4.b – Support increased transit service frequency and capital improvements to serve high-density employment, commercial, residential and mixed-use areas.

- Policy 8.a – Encourage infill of vacant lots close to transportation, municipal facilities, and shopping opportunities to maximize the use and efficiency of the existing circulation system and with high-density and/or high-FAR development encouraging the use of alternative modes of transportation, which will help reduce total vehicular trips. **See response to Land Use Policy 1.3 above.**

- Policy 8.b – Promote mixed-use development to reduce the expansion of the roadway system and minimize maintenance costs.

In addition to the General Plan, the City is a participating member of the Gateway Cities Council of Governments (COG) and the Southern California Association of Government's (SCAG) Sustainable Communities Strategy (SCS) to address SB 375 to reduce greenhouse gas emissions through land use. The plan has been developed with specific regional targets. The final SCS was made available in June 2011 and the Executive Summary is attached to this report. **In 2016, the City continued its participation with SCAG and the Gateway Cities COG for preparation of the 2016-2040 RTP/SCS.**

5. Green Space Access

Signal Hill Goal: Show that there is a public park or recreational open space within ½ kilometer (1,640 feet) of the majority of properties in residentially zoned neighborhoods.

Status: Achieved July 2011. **Maintained achieved status in 2016 with parks/open space within 1,640 feet of residential properties with additional park space and trails.**

Justification: Over 99% of residential properties in the city are within a ½ kilometer of a park or recreational open space such as a trail or school.

Data and Research

- There are only a few residential neighborhoods that are not currently within a half-kilometer (1,640 ft) of a public park or recreational open space in Signal Hill. These are the condominiums at Willow Street and Walnut Avenue, along with a few residences in the North End neighborhood near Target on California Avenue. The Willow/Walnut condominiums do however, have a golf driving range next door and the North End residences have Reservoir Park which lies within 0.64 kilometers. In 2014, the Planning Commission approved the Crescent Square development located at the intersection of Walnut and Crescent Heights. **In 2016, construction of the Crescent Square project began, which includes a pathway connection between the Walnut/Willow condominiums, Town Center West, and the Hilltop Trail System.**

- In 2015, the construction documents for View Park at the southwest corner of Cherry Avenue and Burnett Street were completed. The park will include a landscaped trail for pedestrian access, benches, and an electronic monument sign. In keeping with the City's trail system designs, the trail head entry points at the corner of Cherry Avenue and Burnett Street and at the cul-de-sac on Creston Avenue will have decorative elements similar to the entry points at Panorama Promenade. **In 2016, the City collected $40,933 in park impact fees, which decreased from 2015 ($83,721), but increased from 2014 ($17,121). The future View Park will be funded by development park impact fees. In addition, the City began the process of updating the Parks and Recreation Master Plan. The Community Services Department prepared bids and oversaw selection of a consulting firm to conduct a Community Needs Assessment of parks and recreation programs, services and amenities. The firm initiated stakeholder interviews and will complete the assessment report in 2017.**

- **In 2016, the City pursued a $2 million grant from the Rivers and Mountains Conservancy to expand the City's View Park project, located at Cherry Avenue and Burnett Street, and to begin construction of the City's first recycled water system. The project remained on hold pending the**

anticipated award of the grant. However, the Public Works Department continued to support the application process. The City of Long Beach reviewed concept plans for the park expansion which included a small piece of Long Beach property.

Long Beach View Park Land

Signal Hill View Park Land

Recycled Water System

- In 2014, the City located a site for a future dog park at 3100 California Avenue just south of the 405 Freeway. **In 2016, the design plans were completed. During the review process, the slope of the trail was reduced to improve handicap accessibility.**

- In 2014, the City's Community Garden opened at 1917 E. 21st Street. The Community Garden includes 26 spaces with two of those available for people with disabilities. **In 2016, the garden has one plot available out of 24 plots. The gardeners have started to do monthly plot cleanups for the health of the garden as a whole. They are also hosting workshops to become more familiar with bugs and seasonal gardening techniques.**

6. Tree Canopy

Signal Hill Goal: Plant and maintain street trees in not less than 50% of all available sidewalk planting sites.

Status: Achieved September 2011. **Maintained achieved status in 2016 through compliance with City street tree guidelines.**

Justification: The City's Street Tree Ordinance has definitive guidelines for street tree maintenance and replacement. Sidewalk planting sites are City-owned trees in the public right-of-way. An inventory was carried out to prepare a Street Tree Master Plan and it found that 90% of all sidewalk planting sites are in good to fair condition.

Data and Research

- A consultant was hired to survey all the street trees in the City in order to develop a new street tree policy. The policy addressed planting sites.

- The Department of Public Works completed work on a Street Tree Ordinance in August 2011. The ordinance replaces the street tree policy and establishes more definitive guidelines for street tree maintenance and replacement. The ordinance was adopted by City Council in September 2011. In 2015, the City prepared pamphlets and conducted outreach programs to educate the public about maintenance of mature trees which may become stressed during the drought due to a lack of water.

- The Street Tree Ordinance was presented to the Sustainable City Committee in August 2011 for endorsement to the City Council to demonstrate that providing and maintaining street trees are vital in creating a sustainable city.

- "Sidewalk planting sites" are defined as City-owned trees located in the public right-of-way which include parkways (between street curb and sidewalk), trees located in sidewalk tree wells, and behind sidewalks but within the public street right-of-way. Trees on private property and on private streets are not subject to these regulations.

- A Street Tree Master Plan inventoried 4,066 planting sites, and established specimen requirements and a maintenance schedule for each. Based on this inventory, 90% of all available sidewalk planting sites are filled and maintained in good-fair condition. In 2015, the Public Works Department began reviewing reports from the street trees that were removed. After reviewing the reports, the Public Works Department created an action plan for replacement. Some street tree planting sites were deemed unsuitable due to proximity to overhead power lines, proximity to underground utilities and/or driveway approaches or curb returns. Based on the reduced number of planting sites and even with the number of street trees removed in 2015, over 50% of the sidewalk planting sites were maintained. **In 2016, over 85% of the 4,161 available parkway sites were maintained.**

- As development occurs, new trees shall be planted as suitable to each site which will lead to 100% planting of available planting sites. The City has retained a tree trimming contractor. As of December 31, 2014, there were 3,681 trees citywide. Maintenance was performed and completed in designated areas throughout the City. 732 trees were trimmed. Three trees were removed due to conditions of the trees. As of December 31, 2015, there were 3,619 trees citywide. Maintenance was performed and completed in designated areas throughout the City and 84 trees were trimmed in response to service requests. A total of 1,927 trees were trimmed and 60 trees were removed because they had died or were in poor health. **As of December 31, 2016, there were 3,565 trees in the City. Maintenance was performed and completed in designated areas throughout the City and 29 trees were trimmed in response to service requests. A total of 2,212 trees were trimmed and 41 trees were removed because they had died or were in poor health.**

- The Street Tree Master Plan calls for the planting of a variety of street tree species planted at 30 to 50 feet off center with average canopy coverage or tree spread of 30 feet. As demonstrated in the hypothetical examples below, this results in average canopy coverage in excess of 50% along a typical street. In 2014, no new trees were planted by the City. In 2015, two new trees were planted by the City. **In 2016, five new trees were planted by the City.**

- Average canopy coverage on sample streets:

    - 1900 block of Junipero = 63% tree spread coverage
      (Based on an assumption of a 600' linear-foot block with average spacing of 40 feet, 15 trees with a 25-foot average spread at maturity can be planted)

- 2700 block of Gaviota = 88% tree spread coverage
  (Based on an assumption of a 600' linear-foot block with average spacing of 40 feet, 15 trees with a 35-foot average spread at maturity can be planted)

- 3300 block of Falcon = 88% tree spread coverage
  (Based on an assumption of a 600' linear-foot block with average spacing of 40 feet, 15 trees with a 35-foot average spread at maturity can be planted)

- The Street Tree Ordinance was approved at City Council on November 15, 2011.

- In 2014, approximately 110.6 tons of wood chips from tree trimming were diverted from landfills and recycled as mulch. In 2015, approximately 683.37 tons of wood chips from tree trimming were diverted from landfills and recycled as mulch. **In 2016, approximately 162.23 tons of wood chips from tree trimming were diverted from landfills and recycled as mulch.**

7. Water Conservation

Signal Hill Goal: Demonstrate that the City is on track to reduce total water used by 12% annually as compared to the usage for the same months of 2013 (July 2013-February 2014).

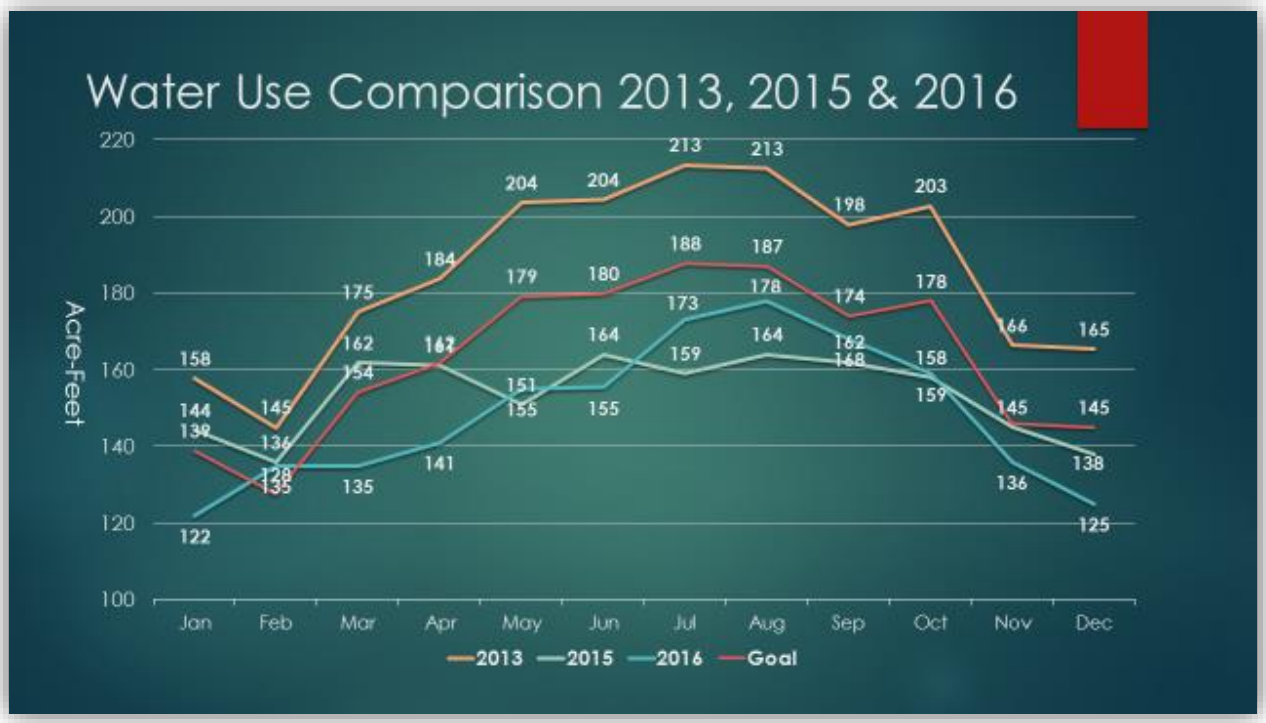
Status: Achieved July 2011. **Maintained achieved status in 2016, by continued compliance with the 2015 newly adopted local goal of 12% reduction in water use to replace a previously achieved water conservation goal.**

Justification: In 2016, the Sustainable City Committee extended the 2015 water conservation goal, consistent with the initial State goal to reduce water use by 12% from the 2013 rate. As a result of staff and community efforts, reporting shows that Signal Hill water customers are among the lowest water users statewide. With the help and efforts made by our residents and water customers, the City is not only meeting, but exceeding its water conservation goals.

In 2016, the City monitored water use and noted an average 21% reduction in overall water use. Data on usage from 2016 is as follows:

Goal Monitoring Period	(A) Baseline	(B) 12% Reduction Goal	(C) Current Water Usage	% Current Reduction	(D) Status
Month Year	2013 AcFt	Based on 2013 AcFt	2015-16 Actual AcFt		
January 2016	174	153	122	30%	Achieved Goal
February 2016	157	138	135	14%	Achieved Goal
March 2016	175	154	135	23%	Achieved Goal
April 2016	184	162	141	23%	Achieved Goal
May 2016	204	180	155	24%	Achieved Goal
June 2016	204	180	162	21%	Achieved Goal
July 2016	214	188	173	19%	Achieved Goal
August 2016	213	187	178	16%	Achieved Goal
September 2016	198	174	168	15%	Achieved Goal
October 2016	203	178	159	22%	Achieved Goal
November 2016	166	146	136	18%	Achieved Goal
December 2016	165	145	125	24%	Achieved Goal

(A) The baseline for conservation monitoring is the monthly total system water use over the period of July 2013 through February 2014 in Acre Feet (AcFt).
(B) The reduction goal (i.e. Baseline AcFt minus 12%).
(C) Actual water reduction percentages are calculated based on total system water use (AcFt). The reporting period is July 2015 through February 2016.
(D) Monitoring the City's performance in reducing 12% total water use.



Data and Research

- How the local goal was determined: In response to unprecedented drought conditions, the State Water Resources Control Board adopted emergency regulations implementing a statewide overall reduction in potable water use by 25% as mandated by the Governor's Executive Order B29-15. According to the State Water Resources Control Board, the reduction would equate to saving approximately 1.2 million acre-feet of water over a nine-month period. To implement the mandate, water suppliers were required to reduce water use anywhere from 8% to 36%.

Conservation Tiers

Signal Hill

Tier	R-GPCD Range From	To	Water Reduction Required
1			4%
2	0	64.99	8%
3	65	79.99	12%
4	80	94.99	16%
5	95	109.99	20%
6	110	129.99	24%
7	130	169.99	28%
8	170	214.99	32%
9	215	612	36%
Estimated Statewide Water Savings (%)			24%

The conservation mandate was based on two factors: water supplier system size and residential per-capita daily water use.

1) Water Supplier System Size. As defined within state regulations:

- Water suppliers that service 3,000 customer meters *or more* are referred to as 'urban water suppliers'.
- Water suppliers that service 3,000 customer meters *or less* are defined as 'small community water suppliers'.

Signal Hill falls within the criteria of a small community water supplier. Based on the status of being a small community water supplier, the City is exempt from the mandatory tiered conservation goals. However, in an effort to save water, the City is tracking water usage and conservation consistent with the State's tiered mandate for urban water suppliers.

2) The average residential per-capita daily water use (R-GPCD) from July 2014 to September 2014. As defined within state regulations:

- R-GPCD = [(TMP*PRU*C) / TPS] / number of days in the month
  - TMP=Total Monthly Potable Water Production
  - PRU=Percent Residential Use (Billing data for the volume of water provided to residential customers / Total water production)
  - C=Unit Conversion Factor (32,581 Acre-Feet)

- TPS=Total Population Served (as reported in the City's 2010 Urban Water Management Plan)

Residential per-capita daily water use (R-GPCD) is only used to determine the conservation mandate/goal, not to track the City's progress. The reason being that the State Water Board believes that every person should be able to keep indoor water use to no more than 55 gallons per day. Water used over the 55 gallons per day is typically spent on outdoor irrigation which can be cut during times of a drought. Often water suppliers with higher R-GPCDs are located in areas where the majority of water use is directed at outdoor irrigation. Suppliers with lower R-GPCDs were assigned lower conservation mandates than suppliers with higher R-GPCDs.

- For Signal Hill the average R-GPCD from July 2014-September 2014 was: 76 R-GPCD.

Month Year	R-GPCD
July 2014	78
August 2014	76
September 2014	74
Signal Hill Average	76

Based on the R-GPCD average, the City would fall into the 12% tier (the second lowest tier on the State scale). This recognizes the City's significant water conservation efforts made prior to the current drought mandate and our low per capita residential use. As such the Sustainable City Committee adopted the goal to: Demonstrate that the City is on track to reduce total water used by 12% for the months of July 2015-February 2016, as compared to the usage for the same months of 2013 (July 2013-February 2014).

The following are local actions that have contributed to the City's water conservation efforts in 2015:

- In response to the Governor-issued Executive Order B-29-15 issued on April 1, 2015, directing a statewide overall reduction in potable water use of 25%, on May 19, 2015, the City declared a Level 2 Water Supply Shortage. On September 15, 2015, the City updated the Level 2 water restrictions to:

  - Change Level 2 Water Supply Shortage watering days from Monday and Saturday to Tuesday and Saturday.
  - Limit operation of automated sprinkler heads with flow rates greater than 2 gallons per minute to a maximum of 10 minutes (per valve station) on each authorized day so long as no visible runoff or pooling occurs. If runoff or

pooling is visible, the sprinkler station run time must be further reduced to eliminate runoff and pooling.

- Limit operation of automated sprinkler heads with flow rate less than 2 gallons per minute to a maximum of 20 minutes (per valve station) on each authorized day so long as no visible runoff or pooling occurs. If runoff or pooling is visible, the sprinkler station run time must be further reduced to eliminate runoff and pooling.
- Limit drip watering systems (Less than 2 gallons per hour with flow rates less than 2 gallons per hour are exempt from day and duration limitations so long as no visible runoff or pooling is created). Watering is prohibited from 9:00 AM to 4:00 PM daily.
- Specify acceptable spray washer minimum pressure and maximum flow rate.
- Prohibit watering of lawns during or within 48 hours after rain.
- Provide Level 1 and Level 2 exemptions for trees and vegetable gardens.

- In 2015, in response to drought conditions, the State revised the Model Water Efficient Landscape Ordinance for new development and mandated that local agencies adopt the model or an equivalent ordinance. On November 23, 2015, the City adopted the State's Model Water Efficient Landscape Ordinance (MWELO). The standards further conserve water as follows:
  - Reduces the maximum amount of water that can be applied to new residential landscape by 30%.
  - Reduces the maximum amount of new residential landscape area that can be turf to 25%.
  - Reduces the maximum amount of water that can be applied to new commercial landscape by 40%.
  - Prohibits turf in commercial landscape areas with exceptions for Special Landscape Areas such as recreational areas.
  - Reduces the threshold for compliance for all new construction from 2,500 square feet to 500 square feet. Rehabilitated landscape projects remain at 2,500 square feet.
  - Increases the minimum width (less than 10 feet) for landscape areas required to be irrigated with subsurface drip or other technology and may not generate overspray or runoff.
  - Prohibits turf in new medians or parkways with the exception of parkways next to a parking strip with a flat surface to facilitate entry and exiting of vehicles.
  - Strengthens efficiency regulations for irrigation systems and qualified use of greywater is encouraged.

The following are local actions that have contributed to the City's water conservation efforts in 2016:

- **In 2016, the City participated in a program administered by the Central Basin Water District, aimed at reduction of water use. The firm of Ecotech conducted water-use evaluation reports including a site description, water use, recommendations for upgrades, available rebates and estimated cost and water savings for the following City parks and facilities:**

  - **Signal Hill Park & Community Center**
  - **City Hall**
  - **Hilltop Park**
  - **Panorama Promenade**
  - **Discovery Well Park**

  Following the evaluation the District provided irrigation retrofits (nozzle/spray head replacements, new controllers, etc.) at multiple City facilities/parks at no cost to the City. In addition, low flow toilets, water efficient faucets and mulch rings around trees were also installed at Signal Hill Park.

- **In July 2016, based on improved water reservoir storage levels as reported by the Metropolitan Water District, the City reduced the water restrictions to Level 1 as follows:**

  - **Limits on Watering Days. Watering or irrigating of any lawn, landscape or other vegetated area with potable water is limited to the following three days per week: Tuesday, Thursday and Saturday. This provision does not apply to landscape irrigation systems that exclusively use very-low flow drip type irrigation systems if no emitter produces more than one gallon of water per hour. Automated landscape irrigation systems may only be operated on other days for very short periods of time, such as ten minutes, or as reasonably required for the express purpose of adjusting or repairing a landscape irrigation system.**
  - **Obligation to Fix Leaks, Breaks, or Malfunctions. All leaks, breaks or other malfunctions in the water user's plumbing or distribution system must be repaired within 72 hours of notification by the City unless other arrangements are made with the City.**
  - **Limits on Filling Ornamental Lakes or Ponds. Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent necessary to sustain aquatic life that has been actively managed or cared for within the ornamental lake or pond, prior to the City declaring a supply shortage level pursuant to this chapter.**
  - **Other Prohibited Uses. The City may implement other prohibited water uses as determined by the City after providing notice to the City's water customers.**

- **Exemptions to Level 1 Shortage Restrictions:**
  1. **Watering with a hand-held hose or a refillable watering vessel, such as a bucket or a tree irrigator is allowed at any time on any day of the week.**
  2. **Drip irrigation systems with emitters of less than two gallons per hour capacity are exempt from duration and day of week restrictions due to increased efficiency.**
  3. **Soaker hoses or automatic tree bubblers may be used to water trees so long as watering is done under the drip-line of the tree canopy.**
  4. **Watering a vegetable garden with a soaker hose is exempt from the watering limitations.**
  5. **In 2016, in accordance with the newly adopted State Water Efficient Landscape Ordinance (WELO) for new development, the City reported on implementation measures and the number of developments reviewed under the ordinance for the year. There were three single-family and one multi-family residential projects that triggered the review; however, they will not be reported until the projects are completed.**

- In 2014, the City adopted Guidelines for Parkway Landscaping. In 2015, three permits were issued to convert parkway planting from turf to water efficient landscaping. **In 2016, eight properties (six residential and two commercial) were awarded Sustainability Awards in the category of Water Efficient Landscaping. Yard signs were added to the award program to increase awareness of the program and promote sustainability:**

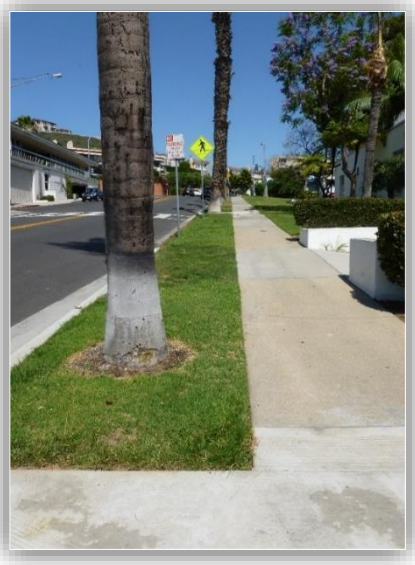
Residential:

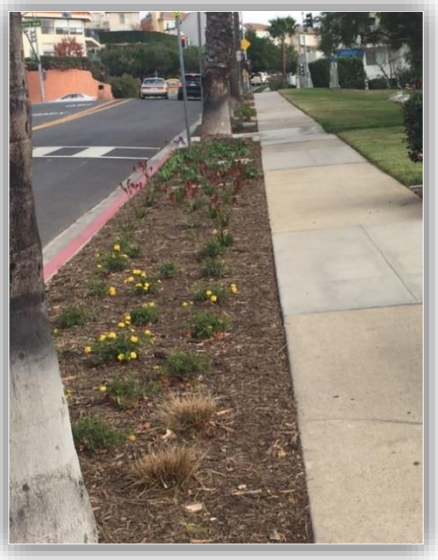
- **1843 Junipero Avenue in the Southeast Neighborhood**
- **1881 Molino Avenue in the Southeast Neighborhood**
- **3285 Orange Avenue in the North End Neighborhood**
- **3276 Lewis Avenue in the North End Neighborhood**
- **3240-42 Cerritos Avenue in the North End Neighborhood**
- **3347-49 Lemon Avenue in the North End Neighborhood**

Commercial:

- **1136-40 E. Willow Street**
- **2101 E. Willow Street**

- In 2015, the City was granted a SoCal Water Smart Turf Removal Rebate by the Metropolitan Water District to replace turf in the parkway at City Hall with drought tolerant plants and drip irrigation. The parkway landscape replacement project serves as a demonstration project for the community. **In 2016, the project was completed.**





- On July 14, 2015, City staff conducted a workshop to educate residents about drought conditions and to obtain feedback on preferences for alternative turf replacement materials and design applications. In addition, on November 23, 2015, the City adopted new regulations for all residential zoning districts to promote planting of alternative landscape materials, emphasize that turf is not

a required or preferred material and establish limitations on the use of hardscape.

- On November 7, 2015, in an effort to promote water conservation in landscaping, the SCC held the first Free Mulch Pick-Up Day for Signal Hill residents.
- In 2015, outreach to the community with water conservation information, tips and regulations continued via pamphlets, the City website and features in the City Views Newsletter with links to bewaterwise.com. In addition, the Public Works Department purchased 500 water conservation kits for distribution to residents at public events such as the Summer Concert Series. In 2016, the City continued their outreach efforts and featured them at the Sustainable City Committee's summer concerts booth.

8. Water Source Protection

Signal Hill Goal: Show that the City is maintaining the highest standards for drinking water quality.

Status: ☘ Achieved July 2011. **Maintained achieved water quality status in 2016 and increased number of wells and facility efficiency.**

Justification: The City provides tap water to 11,585 people (through approximately 3,000 water service connections. Of the water delivered, approximately 90 percent is from two City groundwater production wells (Well No. 7 and Well No. 8) located in Long Beach; the remainder is imported water provided through Central Basin Municipal Water District, which in turn purchases water from the Metropolitan Water District of Southern California (MWD), MWD's water supply comes from the Colorado River Aqueduct and the State Water Project from the Sacramento River/San Joaquin Delta. The City's water system comprises more than 50 miles of distribution and transmission pipeline, a groundwater treatment facility, three booster pump stations, and three storage reservoirs.

The two City wells draw from the Central Coast Groundwater Basin (Central Basin), which is overseen by the Water Replenishment District of Southern California (WRD). The City's groundwater entitlement is 2,022 acre-feet per year (acre-ft/yr) and the City pays a replenishment assessment to WRD for each acre-foot (acre-ft) of water pumped. Well No. 7 and Well No. 8 are both located north of the City service area in the City of Long Beach.

Pumping water represents the single highest energy use for the City. Since 2011, utilizing federal grant money, the City has replaced older, less efficient pump motors with high efficiency motors. In 2015, Edison grants were awarded for a program to install variable speed motor drives on City water pumps that match the service need and reduce energy use and the project was completed.

The City also owns Well No. 9 located in the City's maintenance yard. In 2014, the City was awarded a $2.7 million grant to help construct the Well No. 9 Signal Hill Advanced Groundwater Wellhead Treatment plant. Signal Hill Advanced Groundwater Wellhead Treatment will remove the organic color of the groundwater and treat the water from Well No 9 for public use. The engineering and design efforts are ongoing.

The project will produce approximately 1,450 acre-feet per year which equates to the annual water consumption for 10,000+ people. Production from the well will reduce reliance either directly/indirectly on Metropolitan Water District imported water. By utilizing local groundwater in lieu of imported water, there will also be a reduction of 816 tons of carbon dioxide annually. The greenhouse gas reduction is a result of reducing the amount of energy that would have been used to pump 1,450 acre-feet from the State Water Project over the Tehachapi Mountains and into Southern California (source: Gateway Region 2014 IRWM Drought Grant Application). In 2015,

the design for Well No. 9 was completed and construction began. **In 2016, the well facility was completed. Completion of the treatment facility is pending.**

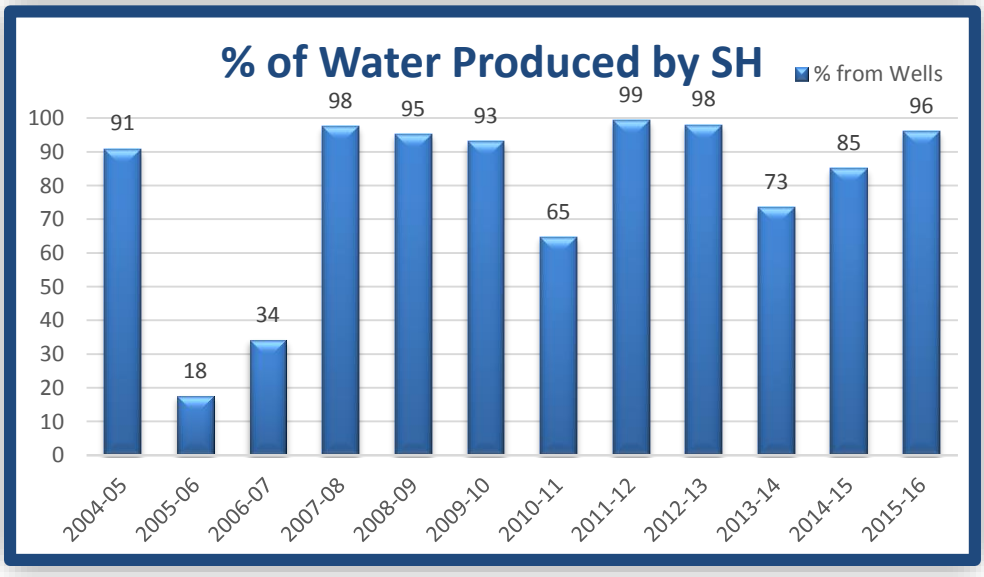
Data and Research

- The majority of the City's tap water supply comes from deep groundwater aquifers known as the Central Groundwater Basin. Agencies such as the Water Replenishment District, the California Department of Public Health, the California Department of Water Resources, and the Regional Water Quality Control Board are charged to protect these groundwater sources.

Water Production

Fiscal Year	Total from Wells (Acre-Feet)	Total Imported (Acre-Feet)	Total Production (Acre-Feet)	% produced by the City
2015-16	**1,708.9**	**67.3**	**1776.2**	**96.0%**
2014-15	1,979.5	333.5	2313	85.6%
2013-14	1621.7	585.1	2206.8	73.4%
2012-13	2185.6	43.5	2229.1	98.0%
2011-12	2118.9	13.8	2132.7	99.4%
2010-11	1263.6	690.3	1953.9	64.7%
2009-10	1835.1	136.1	1971.2	93.1%
2008-09	2006.8	98.5	2105.3	95.3%
2007-08	2121.8	53.9	2175.7	97.5%
2006-07	822.7	1584.1	2406.8	34.2%
2005-06	404.2	1891.2	2295.4	17.6%
2004-05	2126.9	213.5	2340.4	90.9%

* In Fiscal Years 2005-06 and 2006-07, well production was significantly reduced as a result of planned water system facility improvement projects including the rehabilitation of Well No. 7 and a Reservoir Roof Replacement Project. Also, in Fiscal Year 2010-11 and Fiscal Year 2013-14 groundwater production was reduced as a result of production disturbances.



- In 2003, the City completed a Drinking Water Source Assessment study as required by the California Department of Public Health. This study found that the physical barrier protecting the City's groundwater supply is "Highly Effective." The assessment determined that the aquifer, where the City pumps its groundwater, is confined, meaning surface contaminants cannot percolate down through the ground and into the deeper aquifers. Several thick impermeable clay layers separate the water producing aquifers. These clay layers will protect the deeper aquifers from the percolation of surface contaminants.

- All City water supply wells meet or exceed the Department of Public Health's construction requirements to protect the groundwater sources from contamination. Each of the City's water supply wells has a "sanitary seal" that prevents surface contaminants from moving down around the well casing and degrading the water quality below. In addition, the City's well sites are built outside the 100-year flood plain.

- There are three Seawater Barriers managed by the Water Replenishment District and Los Angeles County Department of Public Works. These barriers protect the Central Groundwater Basin from seawater intrusion and are currently using a blend of highly treated recycled water and imported water, thereby reducing the region's reliance on imported water.

- The Water Replenishment District manages the Water Independence Now (WIN) program, which is a series of projects that will fully utilize stormwater and recycled water sources to restore and protect the groundwater resources of the Central and West Coast Basins. The WIN program seeks to completely eliminate the dependence on imported water to ensure the future security of our region by developing local resources to create a locally sustainable groundwater supply. In 2013, one of the WIN projects received $15.6 million of Federal funding from the Department of the Interior's WaterSMART program to increase the capacity of the Leo J. Vander Lans advanced water treatment facility (LJVL Facility) in Long Beach. **In 2016, the construction of the expansion was completed. The project improved the facility's efficiency and reduced operations and maintenance costs. In addition, the facility has further reduced waste and raised overall recovery from 77 percent to 92 percent making the facility a leader in water efficiency.**

- The Groundwater Reliability Improvement Program (GRIP) will replace a significant portion of the imported water purchased by the Water Replenishment District (WRD) for replenishment in the Central Groundwater Basin with highly treated recycled water, thus reducing the region's reliance on imported water. In 2014, the draft Environmental Impact Report was circulated for the GRIP Recycled Water Project. The project would allow WRD to offset current use of imported water with tertiary and advanced water treatment recycled water supplies for groundwater replenishment in the Central Basin. An

Integrated Regional Water Management (IRWM) Grant Proposal provides funding for the project. **In September 2016, the project groundbreaking ceremony took place and construction of the project is underway.**

- The California Department of Water Resources actively monitors all water extractions within the Central Groundwater Basin to assure no over-pumping takes place by the water producers. Oversight and control of the groundwater extractions protects the water levels within the basin and assists with the elimination of seawater intrusion.

- The Regional Water Quality Control Board has developed a "basin plan" for our hydrologic area and issues waste discharge requirements designed to protect the water quality within the local water bodies. The Board monitors water quality and is authorized to take enforcement action against violators.

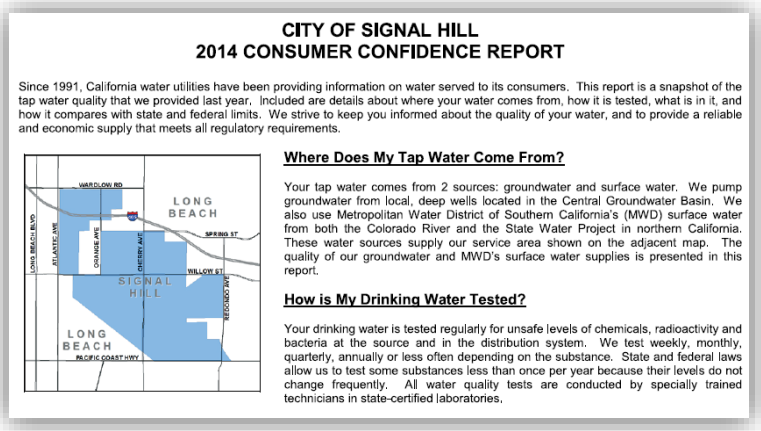
- The City also has an active program to protect water bodies from debris associated with stormwater runoff. The City has trash nets installed on several outfalls, catch basin inserts and conducts an annual cleaning to reduce the amount of trash and debris that enters the Los Angeles River and Los Cerritos Channel. In 2015, the City Water Department received an $11 million Caltrans environmental grant to design and construct a stormwater retention facility and design is underway. **In 2016, the Design Build contract was approved, construction has begun and the estimated completion date is December 2017.**

Los Cerritos Channel

Stormwater Capture

- On April 15, 2011, the State agency issued a letter stating that the Signal Hill Water Department complies with Federal and State drinking water regulations. The California Department of Public Health conducted a review of the City of Signal Hill Water Department water quality testing procedures, records, and water treatment process.

- In 2012, the City conducted a Consumer Confidence Report from the most recent testing performed in accordance with the State and Federal drinking water regulations. In 2013, the Consumer Confidence Report was distributed with the City Views newsletter. The report provided information on where the City's tap water comes from, how drinking water is tested, what drinking water standards are, and testing results. The City's drinking water meets the Federal and State standards. **In 2016, the 2015 Water Quality Report was published and is available on the City's website. A 2016 Water Quality report will be published in June 2017.**



CITY OF SIGNAL HILL
2014 CONSUMER CONFIDENCE REPORT

Since 1991, California water utilities have been providing information on water served to its consumers. This report is a snapshot of the tap water quality that we provided last year. Included are details about where your water comes from, how it is tested, what is in it, and how it compares with state and federal limits. We strive to keep you informed about the quality of your water, and to provide a reliable and economic supply that meets all regulatory requirements.

Where Does My Tap Water Come From?

Your tap water comes from 2 sources: groundwater and surface water. We pump groundwater from local, deep wells located in the Central Groundwater Basin. We also use Metropolitan Water District of Southern California's (MWD) surface water from both the Colorado River and the State Water Project in northern California. These water sources supply our service area shown on the adjacent map. The quality of our groundwater and MWD's surface water supplies is presented in this report.

How is My Drinking Water Tested?

Your drinking water is tested regularly for unsafe levels of chemicals, radioactivity and bacteria at the source and in the distribution system. We test weekly, monthly, quarterly, annually or less often depending on the substance. State and federal laws allow us to test some substances less than once per year because their levels do not change frequently. All water quality tests are conducted by specially trained technicians in state-certified laboratories.

- In 2014, the City Council authorized an Agreement between the City and the Gateway Water Management Authority to accept a Water and Energy Efficiency Grant from the U.S. Bureau of Reclamation for a Regional Advanced Meter Infrastructure Program in the amount of $41,758 to initiate a smart meter replacement project. The demonstration project will replace 260 residential meters in the North End neighborhood with smart meters. The meters have the capability to electronically collect and transmit water usage data in incremental time periods. For example, they can be programmed to record usage data on an hourly basis. The meters electronically transmit monthly water usage data for water billing purposes and can send alerts if water usage is unusually high indicating potential water leaks. The demonstration project will provide valuable data to plan for more efficient water use. In 2015, the Public Works Department prepared a bid package to select a contractor to install the meters however, selection has not yet been made. **In 2016, the City selected UtiliWorks to prepare a study to provide a cost analysis and recommend an approach to tie into the existing Long Beach Gas infrastructure. Long Beach Gas initiated meter installation in late 2016.**

9. Waste Water Reduction

Signal Hill Goal: Implement wastewater management guidelines to A) reduce the volume of accidental sewer discharges, B) prevent trash and debris from entering the storm drain system by increasing collection methods, and C) expand the use of recycled water.

Status: Achieved January 2012. **Maintained achieved status in 2016 with no sewer discharges, and compliance with storm drain maintenance.**

Justification: A) The City is part of Sanitation District 29 and has a goal of zero preventable sanitary sewer overflows per year and within the last four years has not allowed untreated wastewater to reach Waters of the State. B) The City has an active program for street sweeping and inserted screens on its catch basins. C) The City uses recycled water for parks and school grounds and is studying expanding its use.

Data and Research

A. Sewer

- In 1986, the City Council adopted an Industrial Waste ordinance and concurrently implemented an Industrial Waste Program which involves the inspection of all facilities equipped with a wastewater pre-treatment system. These wastewater pre-treatment systems include onsite recycling systems, clarifiers, grease interceptors and grease traps. Sites are inspected at varying intervals correlating to their respective classifications. The restaurants on the list are inspected annually and must provide evidence of proper grease handling to ensure the grease is not discharged into the sanitary sewer system. Grease can be one of the leading causes of sanitary sewer system overflows. There are currently 106 active Industrial Waste sites within the City. Each site goes through a City Industrial Waste permitting process involving site plans. Once issued, the permits are effective for five years, and then must be renewed. Approximately 216 Industrial Waste inspections are conducted annually, with roughly 20 to 40 follow ups per year.

- In 2003/04 the Los Angeles County Sanitation District (District) was required to take measures to reduce the number and volume of sewage spills from its collection system. In response, the District developed several programs, including a Sanitary Sewer Overflow Response Plan, a Sewer Pipe Inspection and Condition Assessment Plan, a Sewer Repair, Rehabilitation and Replacement Plan, a Force Main and Pump Station Condition Inventory and Improvement Plan, a Pump Station Upgrade Plan, a Force Main Upgrade Plan, a Capacity Conditions Assessment Report and a Capacity Assurance Plan.

- In February 2009, the District adopted a Sewer System Management Plan (SSMP) for Sanitation District 29. Sanitation District 29 consists of 34.4 miles

of sewer. The boundaries of Sanitation District 29 and the City of Signal Hill are the same. The overall goals for the SSMP ensures:

- That the collection system facilities are properly managed, operated, and maintained to eliminate preventable sanitary sewer overflows (SSO's);
- That response measures are in place and all feasible steps are taken to mitigate the impacts of SSO's to public health and the environment when they occur;
- That reporting procedures are in place to notify the appropriate regulatory and health authorities of SSO's within the required time frame;
- That SSO events, mitigation measures, and corrective actions are documented.

To measure performance of the SSMP goals, the following levels of service were established:

- Zero preventable SSO's per 100 miles of sewer per year;
- Complete 100% of scheduled preventative maintenance work per year; and
- Respond to the scene of an SSO within 1 hour of notification.

Staff is working with the Sanitation District in an attempt to obtain baseline data beginning in 2005. The City currently has SSO data for the past seven years.

1. On August 3, 2009, an SSO occurred on Burnett Street, west of California Avenue, releasing approximately 1,900 gallons of untreated wastewater. The Sanitation District was able to recover 100 gallons, but the remainder of the wastewater did not reach the Waters of the State.

2. 2010 - No SSO's reported.

3. On March 21, 2011, an SSO occurred at 640 E. Wardlow Road, releasing approximately 1,900 gallons of untreated wastewater. The Sanitation District recovered all 1,900 gallons. No untreated wastewater reached the Waters of the State.

4. In 2012, only one 30 gallon SSO occurred at 28th Street and Signal Parkway. It was recovered and no untreated waste water reached the Waters of the State.

5. In 2013, there were two documented SSO's, however, recovery was successful in both cases and no untreated waste water reached the Waters of the State.

6. In 2014, there were two documented SSO's, one was a Sewer and the other was from the Joint Outfall System within the City boundaries. Both SSOs

were contained, but the SSO from the 19th Street Trunk did reach the Hamilton Bowl (which is determined to be a Waters of the US) where it was contained and recovered.

7. **In 2016, there were no SSO's reported.**

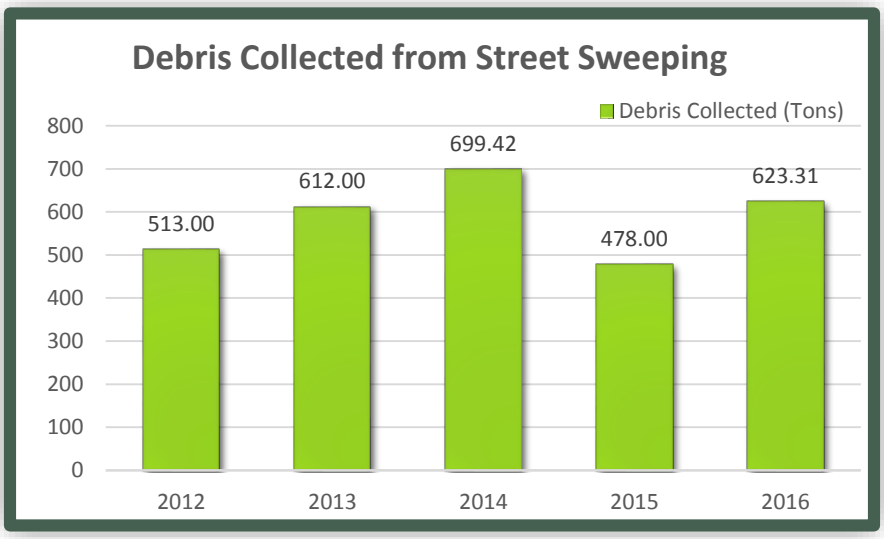
- In April 2011, as part of the Pump Station Improvement Plan, the District installed a permanent emergency back-up generator at the 28th Street lift station and upgraded the controls. In 2013, the District completed installation of the redundant Force Main at the Alamitos Lift Station as part of the Force Main Upgrade Plan.

B. Stormwater

- In 2005, as the base year, street sweeping was the primary program to reduce the amount of trash, green waste and debris from reaching the storm drain system and ultimately the Pacific Ocean.

Street Sweeping

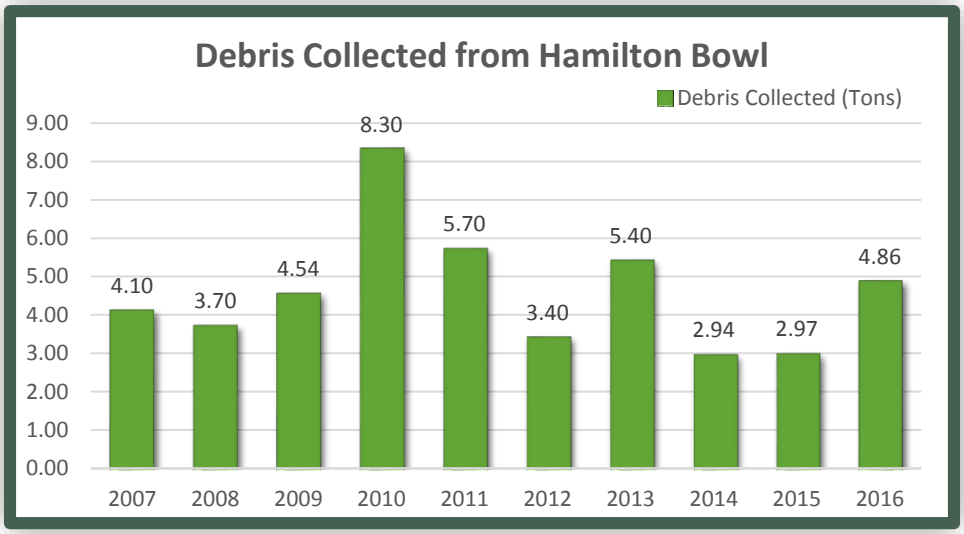
Year	Debris Collected (Tons)
2016	**623.31**
2015	478.00
2014	699.42
2013	612.00
2012	513.00



- In 2007, debris (trash, silt, leaves) removal at the Hamilton Bowl stormwater detention basin began. The annual pounds of debris collected from Hamilton Bowl are as follows:

Hamilton Bowl

Year	Debris Collected (Tons)
2016	**4.86**
2015	2.97
2014	2.94
2013	5.40
2012	3.40
2011	5.70
2010	8.30
2009	4.54
2008	3.70
2007	4.10



- In 2011, as part of a Gateway Cities grant, catch basin inserts and screens were installed on 138 of the 174 catch basins that flow to the Los Angeles River. These devices are designed to capture trash and debris at the entrance to the catch basin and within the catch basin, and thereby prevent the debris from entering the storm drain pipe itself. The City is responsible for removing the captured debris on an as-needed basis. Under the MS-4 permit, three cleanouts are required during the wet season and one cleanout is required during the dry season. **In 2016, there were six catch basin cleanings yielding a total of 22.78 tons of debris.** Four during the wet season and two during the dry season. Information on annual catch basin cleanouts follows:

  Catch Basin Cleanouts

  - **2016= 22.78 tons of waste collected**
    January 8.59
    February 3.76

March	**2.89**
May	**2.28**
December	**5.26**

- 2015= 28.13 tons of waste collected

April	11.57
May	2.64
September	5.70
November	5.75
December	2.47

- 2014 = 20.79 tons of waste collected

February	5.30 tons
March	7.22 tons
June	3.20 tons
November	5.07 tons

- 2013 = 15.82 tons of waste collected

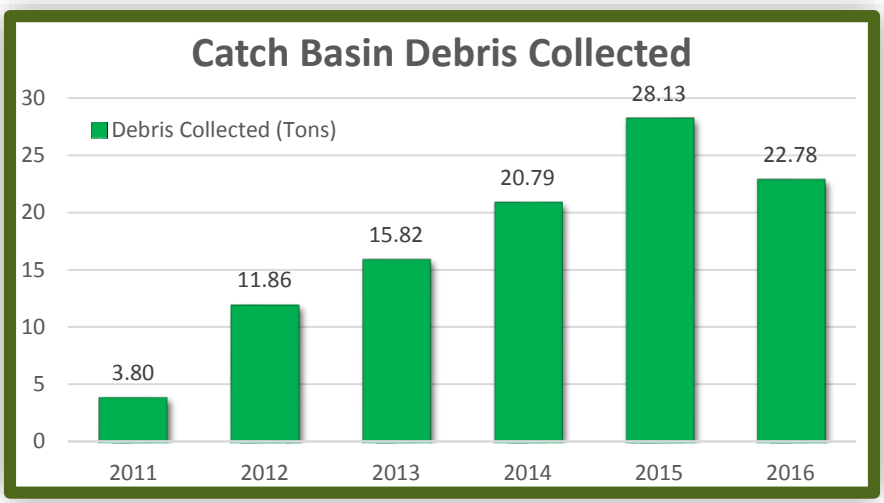
January	4.80 tons
February	3.74 tons
June	7.28 tons

- 2012 = 11.86 tons of waste collected

January	7.44 tons
October	4.42 tons

- 2011= 3.80 tons of waste collected

October	3.80 tons



- With the collection of the waste right at the catch basin, the amount of waste that makes its way to the Hamilton Bowl will be greatly reduced. The City will continue to manage both programs. Since the catch basin inserts were installed less than 2% of the debris collected has been trash, the majority of the debris collected is silt (85%) and leaves (13%).

- The City owns 42 storm drain inlets. In 2013, 20 storm drain inlets were re-stenciled with, “No Dumping,” signs. In FY 2014-2015, 23 storm drain inlets were re-stenciled with, “No Dumping,” signs. **In FY 2015-2016, zero storm drain inlets were re-stenciled with a, “No Dumping,” sign.**

- Water Quality Best Management Practices (BMP’s) are required on all construction projects throughout the City.

- The current City Stormwater Discharge Permit (MS-4 Permit) requires use of Low Impact Development (LID) BMPs on all sites and the Standard Urban Stormwater Mitigation Plan (SUSMP) only on larger development sites.

- LID options include:

    - Biofiltration
    - Infiltration
    - Biotreatment

- In 2013, the City prepared National Pollutant Discharge Elimination System (NPDES) compliance plans for twelve known trucking and storage yards to reduce or eliminate erosion and tracking onto the streets.

- In 2013, the City amended Chapter 12.16 of the Signal Hill Municipal Code to incorporate low impact development measures in response to the Municipal Separate Storm Sewer System (MS4) permit requirements. The City continues to work with developers and property owners as an increased number of development projects will now be required to submit plans and obtain approval of low impact development measures. This is implemented through review of grading and subdivision improvements. In 2014, four development projects (Costco gas station, BMW, Gateway Center Pad A, and Long Beach Islamic Center) had LID plans approved in accordance with the MS-4 requirements. BMP installations included biotreatment, infiltration, and detention basins to treat a total of 21.3 acres of private property. In 2015, three development projects (Zinnia development at 1500 E. Hill Street, warehouse and office building at 3355 Olive Avenue, residential duplex at 924 Vernon Street) were plan checked in accordance with the MS-4 requirements. BMP installations included one Modular Wetland System, 18 Biofiltration Planter Boxes, one Infiltration Box, one Media Filter and one small site with LID BMPs to treat a total of 1.995 acres of private property. **In 2016, one development project (Crescent Square at 1800-1898 Crescent Heights Street) was plan checked in accordance with the MS4 requirements. BMP installations included one Modular Wetland System to treat 1.28 acres. Additionally, two Small Site projects were plan checked, which included rain barrels, concrete pavers, and Cultec infiltration chambers to treat 0.42 acre.**

- In 2014, the City started an inventory of vacant parcels throughout the City. The City is currently participating in the development of the Lower Los Angeles

River Watershed Management Program and the Los Cerritos Channel Watershed Management Program which will outline the City's planned water quality control measures for vacant parcels. In 2015, the City Water Department received an $11 million Caltrans environmental grant to design and construct a stormwater retention facility and design is underway. **In 2016, the stormwater retention facility project went out to bid and construction started in December 2016. Completion is expected by the end of 2017.**

C. Recycled Water

- The City of Signal Hill uses approximately 12,000 gallons of recycled water per day for irrigation at two locations, Reservoir Park and Burroughs Elementary School, and has a goal of expanding the use of recycled water to other areas of the City. The City Recycled Water System Expansion Project is currently listed in the LA County Regional Integrated Water Management Plan. The City will consider submitting a grant application under Proposition 84 under Round 3 Call for projects. In 2015, the City's Recycled Water System Expansion Project did not qualify for grant funds.

- In 2005, the City completed a Recycled Water Feasibility Study. The results of the study concluded that the use of recycled water is economically feasible and will reduce the City's annual demand for tap water.

- In January 2010, the City Council authorized the City Manager to file for a Water Recycling Facilities Planning Grant from the State Water Resources Control Board in the amount of $75,000.

- A grant between the City and the State Water Resources Control Board was fully executed effective August 13, 2010.

- On October 5, 2010, the City Council authorized a Contract Services Agreement with MWH Americas, Inc. for the preparation of a recycled water facilities plan. The cost of this contract is not to exceed $150,000.

- MWH is in the process of completing an expanded feasibility study and has completed a preliminary recycled water system design. Approximately 60 potential recycled water customers have been identified, with an annual usage of approximately 199 AF (Acre-Foot).

- As grant funds become available, the City will proceed with the final design and construction of the expansion of the recycled water system. In 2014, the City applied for a grant to expand the recycled water system, but funding was not granted. In 2015, the City applied for grant funds once again. **In 2016, the City pursued a $2 million grant from the Rivers and Mountains Conservancy to expand the City's View Park project and to begin construction of the City's first recycled water system. The project remained on hold pending the anticipated award of the grant. The Public Works Department**

continued to support the application process. The City of Long Beach reviewed concept plans for expansion of the park to include property they own. Furthermore, design plans for a dog park at 3100 California Avenue, just south of the 405 Freeway, were completed.

Section II

Urban Environmental Accord Goals

Summary: There are 12 additional goals that the City has not determined local goals for; however, throughout the year, the City completes many local projects that promote the Urban Environmental Accord (UEA) goals and framework.

1. Energy Efficiency

UEA Goal: Adopt and implement a policy to reduce the City's peak electric load by ten percent within seven years through energy efficiency, shifting the timing of energy demands, and conservation measures.

Signal Hill Goal: To be determined.

Status: In 2015, the SCC delayed meaningful action on developing a local goal given limited data. Staff was directed to monitor available data and report back to the SCC when data becomes available.

- The City is a participant in the County of Los Angeles Energy Upgrade California program. This program provides incentives for homeowners to complete energy-saving home upgrades. As of October 12, 2011, funding became available for Signal Hill residents through Long Beach Gas, SCE and Los Angeles County. The City has information at the Community Development Department counter and has placed information on its website. Funding for this program is no longer available.

- Low energy light fixtures have been installed in City Hall, Police Department, Library and City Yard with motion sensors. The renovated restrooms at Signal Hill Park use solar tubes for natural daylight. LED light fixtures were installed on Jessie Nelson and around the exterior of the Civic Center buildings. In 2013, the Committee heard a presentation from Energy Management Solutions Incentives program for a lighting retrofit energy efficiency project that encompasses the lighting systems at several City locations and could reduce the load factor by 40-45%. In 2015, the City continued to look into developing an Energy Action Plan. **In 2016, the SCC reviewed the City's consideration of the new policy of Southern California Edison (SCE) to allow cities to purchase street lights if they wish to convert them to energy efficient light emitting diode (LED) fixtures. A cost benefit analysis was initiated.**

- Several departments shut off computers, printers and shredders at end of day.

- In 2013, the Committee picked energy efficiency as the goal that they would focus on for the year, to gather data and establish a local goal for achievement. In 2015, noting that energy data was difficult to gather and given drought conditions, the City focused activities on water conservation and continued to investigate new data gathering techniques to assist in establishing a new local energy goal. Staff obtained electricity use reports from SCE for years 2009 and 2010. The reports show an increase in peak load of 3.9% from 2009 to 2010. Additional reports going back to the 2005 baseline year were available for a cost of $300 for each year, however in 2013 SCC members were able to assist in obtaining usage reports for citywide electricity consumption for the years of 2008, 2011, 2012 and 2013. The City's SCE accounts for the next three years

including public facilities, parks, irrigation, street signals and street lights were also requested. **In 2016, staff continued collection of Edison energy use data for public facilities which does not provide line item detail of City facilities and is therefore difficult to disseminate**. **However, the Public Works Department has plans to prepare an Energy Action Plan (EAP) for the City which could replace the Edison data. The purpose of the EAP is to contribute to the effort to comply with California's Long Term Energy Efficiency Plan.**

- In 2013, solar panel systems were installed for 7 single-family dwellings and solar panel systems were installed for all the Pacific Walk and Aragon residential developments. The new police station includes a rooftop photovoltaic system. In addition, a permit was issued to install a rooftop photovoltaic system at the EDCO administrative offices. In 2014, solar panel systems were installed for 23 single-family dwellings and solar panel systems were installed for all the Aragon residential development. The EDCO photovoltaic system was installed. In 2015, 24 solar permits were issued (23 for residential and one for commercial). **In 2016, 26 solar permits were issued (25 for residential and one for commercial).**

- **In 2016, the new police station continued to produce 30% of its daytime energy and 15% of the total energy use through the photovoltaic system.**

- **On September 2, 2016, the City Council continued its ordinance for Small Residential Rooftop Solar Energy Systems Permits in accordance with AB2188, the ordinance set provisions to streamline the small residential rooftop solar energy system permits and inspection process. In 2016, 25 residential solar permits were issued.**

Eligibility Checklist for Expedited Solar Photovoltaic Permitting for One- and Two-Family Dwellings

City of Signal Hill

Community Development Department

GENERAL REQUIREMENTS

A.	System size is 10 kW AC CEC rating or less	☐ Y	☐ N
B.	The solar array is roof-mounted on one- or two-family dwelling or accessory structure	☐ Y	☐ N
C.	The solar panel/module arrays will not exceed the maximum legal building height	☐ Y	☐ N
D.	Solar system is utility interactive and without battery storage	☐ Y	☐ N
E.	Is a roof plan of the module and anchor layout attached	☐ Y	☐ N
F.	Does the array cover no more than half of the total roof area	☐ Y	☐ N
G.	Permit application is completed and attached	☐ Y	☐ N

- In 2015, the City approved plans for Bloom Energy to install energy efficient fuel cells at the Home Depot store in the Gateway Center. The fuel cell system converts fuel directly into energy without combustion, which is an approximately 60% more efficient method of generating electricity. **In 2016,**

installation of Bloom Energy fuel cells at Gateway Center and at Town Center East Home Depots was completed.

2. Climate Change

UEA Goal: Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by twenty-five percent by 2030, and which includes a system for accounting and auditing greenhouse gas emissions.

Signal Hill Goal: To be determined.

Status: Ongoing.

- The State through AB 32 seeks to reduce greenhouse gas emissions to 1990 levels by 2020.

- The City is participating in the SCAG regional Sustainable Community Strategy program through SB 375 which has been given a target of reducing its greenhouse gas emissions 8% by 2020 and 13% by 2035.

- The City is entirely surrounded by the City of Long Beach. Long Beach is conducting an annual emissions report that may be useful for Signal Hill.

- **In 2016, City staff continued to actively participate in the Gateway Cities Council of Governments, which has continued work on the 2016-2040 draft Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) through general plan, zoning, existing land use, and resources data collection.**

- The Gateway Cities greenhouse emission target is to reduce GHG 8.5% by 2020 and reduce GHG 15.02% by 2035. The five strategies to reduce greenhouse gases include: Transportation Strategies (340), TDM Strategies, Land Use (4D's travel behavior), Regional Projects (Measure R) and Interaction Land Use (Measure R). **In 2016, the City continued to participate in regional efforts to reduce GHG and prepare the 2016-2040 RTP/SCS.**

3. Zero Waste

UEA Goal: Establish a policy to achieve zero waste to landfills and incinerators by 2040.

Signal Hill Goal: To be determined.

Status: Ongoing.

- Construction started in 2010 on the EDCO Recycling and Solid Waste Transfer Station. The facility was completed in 2012. It increases the City's recycling rate and also provides a hazardous waste drop off site for the community.

- The new CALGreen standards require a construction debris recovery and recycling rate of 50%. In 2015, additional and more rigorous CALGreen regulations were implemented by the State and the City required all new development projects to submit a construction demolition and debris management plan to divert construction related debris. Construction recycling increased from 50% to 65%. CALGreen water regulations incorporated the State MWELO requirements for new construction including:

    - Water efficient fixtures and irrigation systems.
    - A Building Operations and Maintenance Manual for commercial development.
    - Decreased valuation from $200,000 for new construction or 1,000 square feet for additions.

In 2016, the City Building Inspector reviewed the newest CalGreen changes to the 2013 regulations with the Sustainable City Committee as follows:

Construction Waste Recycling

- **Construction waste recycling is now required for alterations as well as new construction.**

New Definitions

- **Electric Vehicle (EV) Charger. Off-board charging equipment used to charge an electric vehicle.**
- **Electric Vehicle Charging Space (EV SPACE). A space intended for future installation of EV charging equipment and charging of electric vehicles.**
- **Electric Vehicle Charging Station(s) (EVCS). One or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.**

Universal Waste

- **(1) Batteries, as described in Title 22 CCR, Section 66273.2, Subsection (a);**

  - **(2) Electronic devices, as described in Title 22 CCR, Section 66273.3, Subsection (a);**
  - **(3) Mercury-containing equipment, as described in Title 22 CCR, Section 66273.4, Subsection (a);**
  - **(4) Lamps, as described in Title 22 CCR, Section 66273.5, Subsection (a);**
  - **(5) Cathode ray tubes, as described in Title 22 CCR, Section 66273.6, Subsection (a);**
  - **(6) Cathode ray tube glass, as described in Title 22 CCR, Section 66273.7, Subsection (a); and**
  - **(7) Aerosol cans, as specified in Health and Safety Code, Section 25201.16.**

Recycling Containers

  - **Required for multi-tenant residential.**

Commercial Waste Disposers

  - **Required to have automatic shut off valves.**

- In 2010, the City met the State target of 8.9 pounds per person of waste generated by realizing 5.0 pounds per person per day or an equivalent 70% diversion goal. In 2013, the diversion rate of 73.5% met the goal. In 2014, the City achieved a per capita disposal rate of 5.5 PPD (69.1%) diversion rate which is above the State mandate to divert 8.9 PPD (50%). **Data for 2016 waste diversion rate was not available at the time of production of this report. However, the State 2012-2015 AB939 compliance report was recently completed and the City was found to be in compliance. The City received a compliance letter from the State Department of Resources, Recycling and Recovery regarding compliance with AB 939 diversion rates (see final bullet below).**

- The City has given out over 500 reusable shopping bags at community events and at City Hall to reduce the use of plastic bags.

- The City's landscape contractors use mulching mowers to eliminate green waste and tree trimming contractors shred trimmings into mulch.

- The City has a program for free curbside collection and disposal of used motor oil.

- The City purchases park playground equipment and surfacing made with recycled plastic and repaves its roads with recycled rubber shavings.

- In 2009, the City recorded a disposal rate of 4.5 pounds per person. This is a 53% drop from the rate recorded in 2007, 9.7 pounds per person.

- In 2014, the City partnered with EDCO to produce a promotional video for their Household Hazardous Waste Program. The video can be found on the City's webpage. EDCO was also granted a Sustainability Award for the program.

- **The City received a compliance letter from the State Department of Resources, Recycling and Recovery regarding completion of the 2012-2015 review for compliance with AB 939 regarding diversion rates and CalRecycle found that the City of Signal Hill is meeting the requirements.**

4. Manufacturer Waste

UEA Goal: Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least fifty percent in seven years.

Signal Hill Goal: To be determined.

Status: Ongoing.

- In 2009, the City adopted a green purchasing policy.
- Youth programs are using more earth-friendly utensils.

5. Environmental Jobs

UEA Goal: Adopt a policy or implement a program that creates environmentally beneficial jobs in slums and /or low-income neighborhoods.

Signal Hill Goal: To be determined.

Status: Ongoing.

- The Long Beach Conservation Corps constructed a new facility in Signal Hill which is a green building. It offers job training and education for area at-risk youths.

- The City's Redevelopment Agency used to create jobs through development of retail and auto centers that offer job opportunities. As of February 2012, the Redevelopment Agency and its funding for these opportunities were dissolved due to State action.

6. Habitat Protection

UEA Goal: Pass legislation that protects critical habitat corridors and other key habitat characteristics (e.g. water features, food-bearing plants, shelter for wildlife, use of native species, etc.).

Signal Hill Goal: To be determined.

Status: Ongoing.

- Signal Hill does not have protected and critical habitat corridors but does have its share of urban wildlife such as coyotes, opossums, squirrels and skunks. The City provides an information pamphlet on coyotes to protect its citizens and pets.

7. Public Transportation

UEA Goal: Develop and implement a policy which expands affordable public transportation coverage to within half-a-kilometer of all City residents in ten years.

Signal Hill Goal: To be determined.

Status: Ongoing.

- Signal Hill is served by Long Beach Transit (LBT) and the Metropolitan Transit Authority (MTA) with its Blue Line. There are LBT bus stops on the city's major streets such as Cherry, Willow, Orange, Redondo and Spring. The only residential area that is beyond a half-kilometer of a transit stop is a central part of the Hilltop generally bounded by the Panorama Promenade and 21st Street (north and south) and Stanley and Orizaba (west and east). Due to the topography of the Hilltop it is unlikely that this area will ever be serviced by public transportation, however, there are other services such as Dial-A-Lift and Dial-A-Taxi that provide curbside pick-up for the mobility impaired. **In 2016, construction of the Zinnia development for 72 affordable housing units at 1500 E. Hill Street started. The project is within close proximity to retail centers and the Cherry Avenue and Orange Avenue bus lines. In addition, permits for the two model homes for the Crescent Square residential development adjacent to Town Center West were issued. Approved plans included a trail segment to and from the Hilltop Trail System, Historic District and Town Center.**

8. Clean Vehicles

UEA Goal: Pass a law or implement a program that eliminates leaded gasoline (where it is still used); phases down sulfur levels in diesel and gasoline fuels, concurrent with using advanced emission controls on all buses, taxis, and public fleets to reduce particulate matter and smog-forming emissions from those fleets by fifty percent in seven years.

Signal Hill Goal: To be determined.

Status: Ongoing.

- The City has purchased a number of hybrid vehicles and several heavy duty vehicles used by Public Works run on natural gas.

- Long Beach Transit is on its way to becoming one of the cleanest transit fleets in the country. It is increasing its fleet of hybrid buses which have outperformed even liquefied natural gas (LNG) and compressed natural gas (CNG) vehicles in fuel efficiency, emissions and maintenance costs.

- The City has entered into a contract to install an electric vehicle charging station (EV) in its Legion Drive employee parking lot. This station will provide a charging point for future City vehicles that are electric-powered and will be available to the public and visitors to the Civic Center. The contract was approved by the Council on October 4, 2011 and was reviewed by the City Attorney.

- City Ventures, the developer of the Signal Hill Collection of townhomes at Pacific Coast Highway and Orizaba, has formed a partnership with Nissan to prewire all their homes for EV charging units. This will make it possible for owners to easily install charging units that will power the new LEAF and other EVs.

- In the 2013-14 fiscal year, the City purchased 2 CNG Public Works trucks. The two new CNG vehicles replaced two gasoline power vehicles, making the City's vehicle fleet more efficient. In 2015, the Public Works Department did not purchase any new vehicles. **In 2016, one forklift and four vehicles (two Police vehicles; and two Public Work trucks (CARB/AQMD certified gasoline engines) were purchased.**

- In 2013, charging stations for electric vehicles were installed at the Glenn E. Thomas FIAT dealership at 2002 E. Spring Street. In 2014, charging stations were installed at a commercial office building for private use and at the Fresh & Easy stores on Cherry and Atlantic for customer use.

- The 76 station at 2790 Cherry Avenue offers diesel fuel. The California Air Resource Board mandated that all diesel fuel retail sales in California must meet 15 ppm maximum sulfur limit as of September 1, 2006. Ultra-Low Sulfur Diesel fuel economy is 20-40% better than regular gasoline and reduces greenhouse gas emissions. In 2014, the Costco gas station opened. The gas station sells diesel fuel.

9. Traffic Congestion

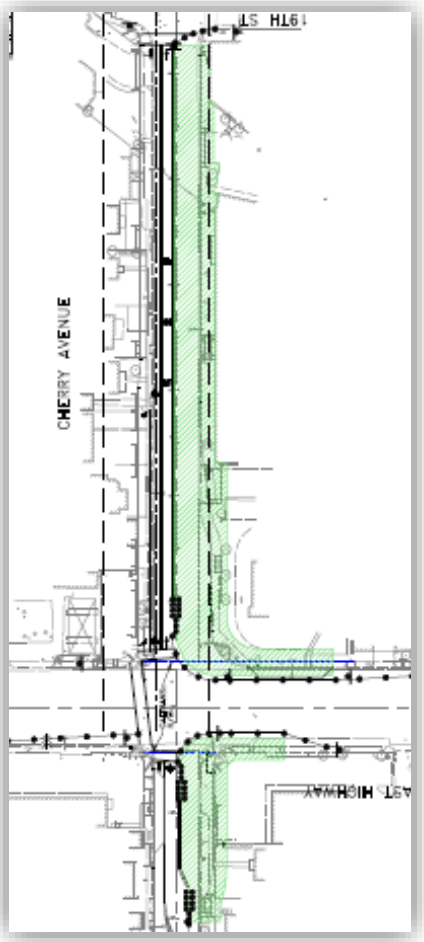
UEA Goal: Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by ten percent in seven years.

Signal Hill Goal: To be determined.

Status: Ongoing.

- The City has increased its usage of email and electronics communications such as providing information on its website which helps reduce trips to City Hall.

- In 2015, construction for the Cherry Avenue Widening Project was completed. The project's goal was to increase the overall efficiency of the Cherry Avenue and Pacific Coast Highway (PCH) intersection. The Project calls for the addition of two new traffic lanes, one in the southbound direction, and one in the northbound direction of Cherry Avenue between PCH and 19th Street. The project is identified as a Federal Transportation Improvement Program project in the 2016-2040 RTP.



- **In 2016, final approval was given by CalTrans for the plans for a $1.0 million Federal Highway Administration grant widening and reconstruction project on California Avenue between Willow and Spring Streets. The Long Beach City Council awarded the construction contract for this project at their December 2016 Council meeting. Construction of the project commenced in spring of 2017. As a result of the pending Widening Project, the City of Long Beach will construct the required ROW improvements. Design of the ROW improvements is pending and the work will be in coordination with the City of Long Beach (see response for Section I, Sub-section 4, and Policy 2.f).**

10. Toxic Reduction

UEA Goal: Every year, identify one product, chemical, or compound that is used within the City that represents the greatest risk to human health and adopt a law and provide incentives to reduce or eliminate its use by the municipal government.

Signal Hill Goal: To be determined.

Status: Ongoing.

- In 2013, the City installed material safety data sheet software that allows staff to look up the safety information on products used by the City. The City follows OSHA standards in regards to use of any products, chemical or compound.

11. Organic Foods

UEA Goal: Promote the public health and environmental benefits of supporting locally-grown organic foods. Ensure that twenty percent of all City facilities (including schools) serve locally-grown and organic food within seven years.

Signal Hill Goal: To be determined.

Status: Ongoing.

- In 2010, City staff formed a team to promote First Lady Michelle Obama's national 'Let's Move!' campaign. This campaign promotes healthy eating and exercise. The City will provide information on its website about this program with links to local organic food vendors, community supported agriculture (CSAs) and farmers markets and is also promoting the program at its community events.

- In 2014, the City's Community Garden opened at 1917 E. 21st Street. The Community Garden includes 26 spaces with two of those available for people with disabilities. The design also includes a small gathering space for gardener meetings and presentations, two shared tool sheds, two work benches, stabilized decomposed granite paths and hose bibs shared by 2 plots. **In 2016, the garden has one plot available out of 24 plots. The gardeners have started to do monthly plot cleanups for the health of the garden as a whole. They are also hosting workshops to become more familiar with bugs and seasonal gardening techniques.**

12. Air Quality

UEA Goal: Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by ten percent in seven years the number of days categorized in the AQI range as “unhealthy” or “hazardous”.

Signal Hill Goal: To be determined.

Status: Ongoing.

Signal Hill under the jurisdiction of the South Coast Air Quality Management District which measures air pollution levels and sets pollution reduction goals.

- **In 2016, the City continues to participate with the Gateway Cities COG and SCAG by providing local data for development of the 2016-2040 RTP/SCS aimed at improved air quality through reduction of traffic volume and congestion through local and regional coordination of planning and development practices.**