LINCOLN AVENUE WATER COMPANY

ANNUAL REPORT OF OPERATIONS

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Lincoln Avenue Water Company

March 30, 2015

John Clairday, President
Board of Directors
Lincoln Avenue Water Company
564 W Harriet Street
Altadena, CA 91001

Dear Board of Directors:

On behalf of the Staff and Management of Lincoln Avenue Water Company I am pleased to present the Annual Report of Operations.

Two thousand fifteen represented the 4th year of a continued drought. The dry conditions has impacted the entire state with reservoirs declining to their lowest levels in decades. As a result of these conditions the Governor was forced to enact more stringent conservation requirements on all water agencies. Lincoln Avenue was asked to reduce water consumption by 28% or face fines amounting to thousands of dollars per day.

Thanks to our customers we've been able to meet all conversation goals. However, the current conservation mandate is scheduled to remain in place until October 2016.

While meeting our conservation goals we were forced to use reserve funds due to the loss in water sales. The use of reserve was necessary in meeting operation and capital improvement needs. As of today we continue to see a decline in sales while under this conservation mandate. The loss in sales will dictate an adjustment in water rates. Management will continue to study cash flow needs and report back to the Board.

With much discussion on the drought and the impact it has had on cash reserves, I'd also like to report the accomplishments of the company during the year.

As in previous years our focus remains on capital improvements and strengthening the company's aged infrastructure.

We opened the year with a major pipeline replacement project on East Mariposa Street. This project was followed by the complete rehabilitation of the La Vina reservoir system including site upgrades.

During this past year we completed the 10 year multi-phase capital improvement program at our Ware Reservoir site. This final phase involved the installation of our second solar voltaic system.

I would also like to report on the ongoing groundwater remediation work involving Lincoln Avenue and NASA/JPL. This 20 year partnership is pleased to announce the addition of a new state-of-the-art groundwater production well scheduled to go online this summer.

While we welcome the successful completion of the past operating year we remain focused on the needs of the company and the community in which we serve. The professional staff at Lincoln Avenue remains committed to providing the highest quality and most reliable water service to customers at the most economically feasible cost.

Sincerely,
Lincoln Avenue Water Company

Robert J. Hayward
General Manager

2015 California Water Drought Alert

In January 2014 Governor Jerry Brown declared a statewide drought emergency and asked Californians to voluntarily cut water use by 20%.

Following another year of below average rainfall and snow pack, in 2015 the Governor adopted new mandatory water conservation rules. These rules included reducing outdoor watering to 2 days per week along with prohibitions on water wasting with fines of up to $500 per day.

To do our part Lincoln Avenue adopted a Moratorium on New Service Connections. This moratorium was put in place to reduce additional water demand on our system.

With the push for more conservation along with an increase in water conservation rebates, our customers responded with a 20% reduction in water usage.

In May 2015 every water service provider in the state of California were once again challenged by the Governor with a new mandatory water use reduction goal or faced fines of up to $10,000 per day. Lincoln Avenue's mandatory reduction goal was set at 28%.

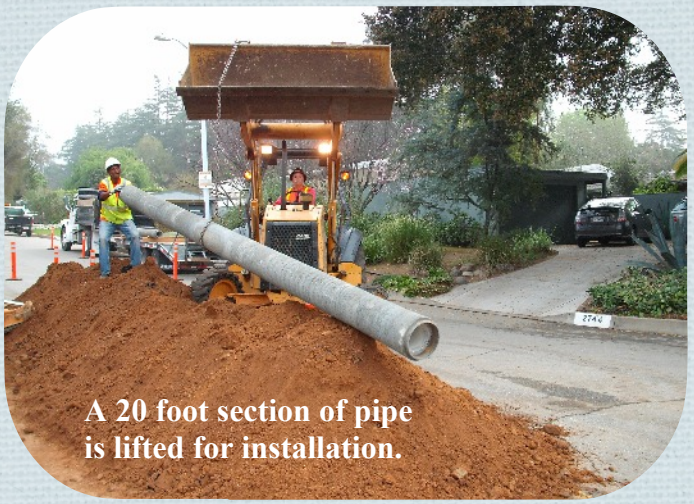
Thanks to the excellent conservation efforts of our customers, the company had an overall water use reduction rate of 30%.

However, with the reduction in consumption we realized a reduction in revenue. This process lead to cutback in Capital projects previously scheduled for the year. We will continue to monitor this trend as we move forward.

EAST MARIPOSA PIPELINE PROJECT

The construction year opened with a water main replacement project on East Mariposa Street. This capital project involved the installation of a new 8-inch main measuring a total of 1,200 feet from Fair Oaks Avenue east to Raymond Avenue.

The trench is excavated.



A 20 foot section of pipe is lifted for installation.

The pipe is prepared for welding.

This was a significant upgrade to our system which was previously serviced by a 56 year old 2-inch main.

A section of pipe is connected.

A pipe fitting is welded in preparation of installing a new fire hydrant.

EAST MARIPOSA PIPELINE PROJECT

In addition to the new water main, 3 new fire hydrants were added to improve fire protection to this area. Each of the 30 customers on this street also received new service lines which increased water availability.

Replacing aged and undersize water mains continues to be a priority when planning and developing future Capital Improvement Budgets.

The trench is filled.

The installation of a new fire hydrant is completed.

The ditch is compacted & prepared for paving.

A section of paving is completed.

La Vina Reservoir Rehabilitation

The original La Vina Reservoir system was built in 1997. The system consists of 2 tanks (East and West) which stores a total of 1 million gallons of water. Following 18 years of service it was time for refurbishment.

During a recent inspection it was noted that while the site was in operational condition the tank interior was experiencing some corrosion of the epoxy lining and other components, which is common in steel tanks such as these. The exterior paint was also fading and needed re-coating.

Interior roof of the East Tank.

Exterior roof of the West Tank.

Pictured above is corrosion of the interior epoxy and exterior paint.

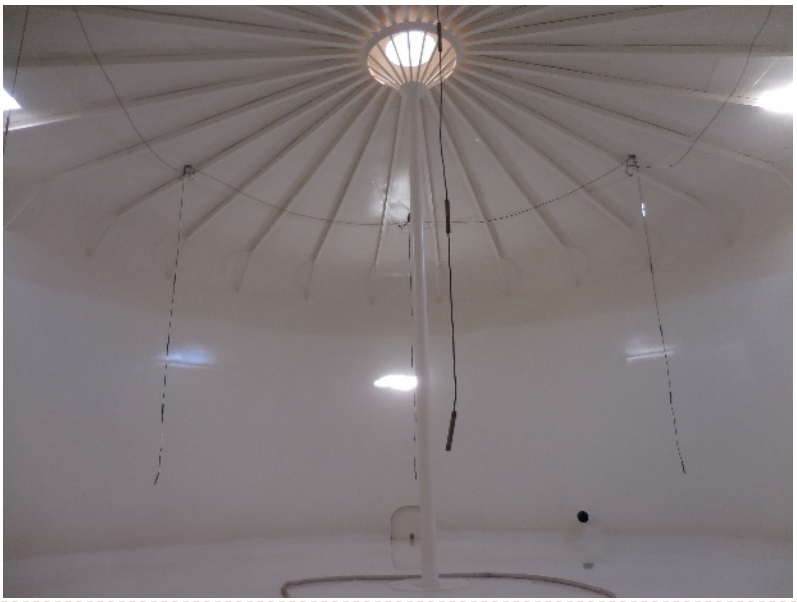
La Vina Reservoir Rehabilitation

The project started with allowing demand to draw down the West tank while the East tank remained in service. It was important that no water was wasted during this process due to the water conversation emergency.

After draining the tank the interior was sandblasted to remove the aged epoxy coating. Steel rafters were replaced along with the roof vents as needed. The entire interior was then coated with new epoxy in compliance with American Water Works Association (AWWA) standards.

A 20 foot high scaffolding was constructed inside the tank.

Once the tank is coated with epoxy it looks as good as new.

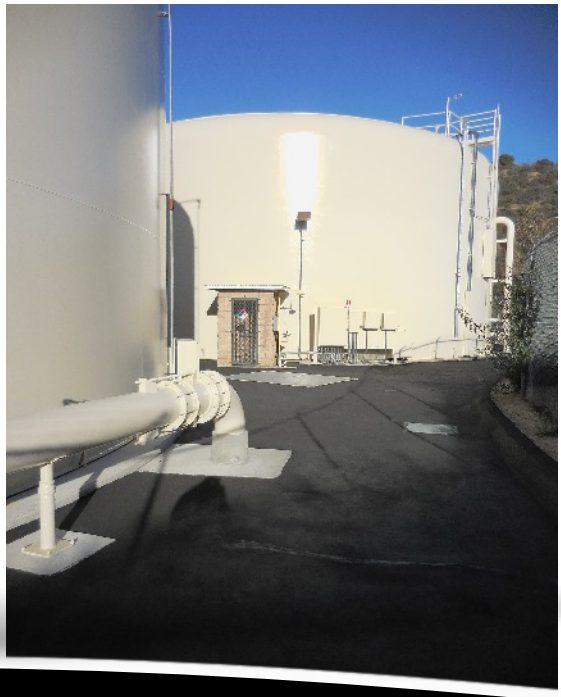


La Vina Reservoir Rehabilitation

The refurbished tank was then cleaned, chlorinated and filled with water. Following the completion of water quality compliance the tank was put back into service and the process was repeated for the East tank.

Once all interior work was completed the tank exterior was sanded and re-coated. The entire site was refurbished including new paving.

The exterior is sanded, recoated and the site was finished with new paving.



La Vina Reservoir Rehabilitation

By maintaining our Facility Inspection & Maintenance Program our reservoirs will continue to provide reliable, safe drinking water service to our customers for years to come.

Ware Reservoir Solar Panel System

In 2015 we realized the completion of the 10 year multi-phase master plan at our Ware Reservoir site. This final phase included the installation of a new state of the art 60 kW Solar Power Generation System. Ware Reservoir booster station pumps water to the highest elevation in our distribution system at 2,000 feet above sea level. This pump station also has the distribution systems highest energy cost per acre foot. This made the Ware Reservoir site a prime location for our second solar system installation.

The future site of our new Solar Energy Generation System.

The site is measured & marked.

Construction begins.

The company will continue to explore the use of solar energy to supplement our power needs.

A 30 foot steel support column is installed.

A birds eye view of the site as construction begins.

Ware Reservoir Solar Panel System

While considering the remote location of Ware Reservoir along with the space needed to build a system large enough to impact energy cost, it was decided that an elevated structure be built to support the system. By incorporating an elevated structure the system is exposed to more sunlight while allowing the area below to be utilized for other needs.

The solar panel support beams are lifted into place making the structure ready for the next phase.

The electrical boxes and microinverters are installed

Microinverters are devices that convert energy generated by the solar panels into an electrical energy current.

The solar panels are installed

Ware Reservoir Solar Panel System

The new solar system went online in June 2015. By December of that year it had produced 58,700 kWh. The estimated annual energy production is approximately 102,000 kWh which will offset most of our power cost at this pump station. We have also generated enough power to offset 40.51 tons of carbon emissions. That is equivalent to carbon sequestered by 1,039 trees or removing 9 cars from the road for 1 year.

The completed system consists of an 18 foot high structure covering an area of 1,600 square feet. A total of 246 solar panels and microinverters were installed will all cabling routed underground.

Exercising & Replacing Valves

Every distribution system has valves that regulate the flow of water as it moves through the system. The ability to operate these valves when necessary is extremely important. In an emergency, sections of a distribution system may need to be isolated without delay. However, when a valve is not used over a period of time it may become inoperable due to corrosion. That is why it is important for an agency to have a Valve Exercising & Replacement Program.

The Field Department attends a valve exercise training class.

In 2015 the company purchased a new hydraulic valve exerciser to assist with this program. The addition of this equipment will make the entire process more efficient.

Once a valve has been exercised, if it is deemed inoperable it is scheduled for replacement.

Groundwater Remediation Enhancement

Lincoln Avenue and NASA/JPL have a long history of working together to address groundwater contamination. As a result of this partnership, in February of 2015 we broke ground on a new groundwater extraction well, Well No. 6.

This new well will optimize the groundwater remediation efforts on the leading edge of the contamination plume. It will also allow Lincoln Avenue to enhance groundwater delivery to its customers. This project is due to be completed in 2016.

Once the area was cleared a 20 foot high sound barrier wall was constructed to reduce the amount of noise heard by our surrounding neighbors due to construction activities.

The drilling rig was also fitted with sound reduction panels.

An overhead view of the project during the well development stage.

Recognition from the University of Southern California

The primary goal of a public water system is to provide clean, safe drinking water to its customers.

To meet this goal the system must be protected against any outside contamination source. Potential cross-connection can pose a danger to drinking water if allowed to go undetected. In order to address this concern, Lincoln Avenue has maintained a Cross-Connection and Backflow Prevention Program for over 25 years. In 2015 the company was recognized by the University of Southern California (USC) for its continued commitment to public health and safety.

Board Member, Lawrence Duncan & Administrative Supervisor, Maria Autran accept the recognition from Program Director J.J. Lee Ph.D., P.E. on behalf of the company.

Foundation for Cross-Connection Control and Hydraulic Research

Certificate of Recognition

In Recognition and Appreciation for your Continuous Support of the USC Foundation Membership Program for more than 25 years, we present this certificate to the

Lincoln Avenue Water Company

on the 8th day of December, 2014

Lucio Soibelman, Chairman
Sonni Astani
Department of Civil and Environmental Engineering

J.J. Lee, Director
Foundation for Cross-Connection Control and Hydraulic Research

WATER SALES AND PRODUCTION FOR 2015
IN ACRE FEET

MONTH	IMPORTED WATER PURCHASE	WELL PRODUCTION	LOCAL SURFACE WATER	TOTAL PRODUCTION	LEASE WATER DELIVERY	SALES	RAIN FALL (INCHES)
January	0	128.91	0	128.91	0	104.79	1.71
February	0.25	129.21	0	129.46	0	123.99	1.48
March	3.58	153.01	0	156.59	0	108.89	0.66
April	5.97	156.12	0	162.09	0	150.86	0.43
May	0	153.79	0	153.79	0	146.08	1.32
June	4.27	163.59	0	167.86	0	132.87	0.31
July	5.51	173.93	0	179.44	0	166.03	2.19
August	25.76	165.49	0	191.25	0	155.82	0
September	25.62	151.45	0	177.07	0	186.06	0
October	82.30	66.02	0	148.32	0	130.68	0.07
November	70.45	78.42	0	148.87	0	143.74	0.25
December	43.00	77.49	0	120.49	0	134.77	1.80
TOTAL	**266.71**	**1597.43**	**0**	**1864.14**	**0**	**1684.57**	**10.22**

PUMPED FROM WELLS

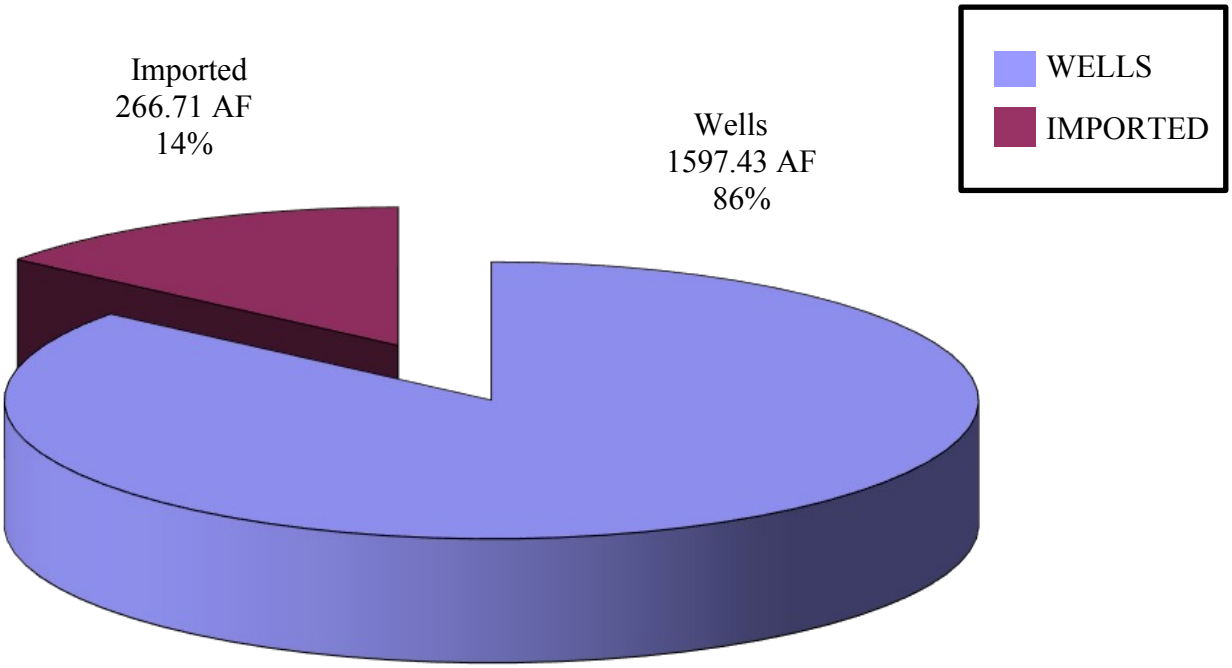
WELL #3	599.02
WELL #5	998.41
TOTAL	1597.43

Total Production	1864.14
Total Sales	-1684.57
Subtotal	179.57
Treatment Plant Operation & Water Quality Control	-55.00
Non-Revenue Production	124.57 or 7%

Non-Revenue Production is water used for routine water quality sampling, evaporation from reservoirs, irrigating at Company sites, water quality flushing, pipeline ditch compaction, fire fighting, fire training, leaks on mains, etc.

The Company's well production consists of 567 acre feet annual decreed right plus spread credit from mountain run-off, and available leased groundwater rights.

2015 WATER PRODUCTION
BY SOURCE



Wells	1,597.43 AF
Imported	266.71 AF
Total Production	1,864.14 AF

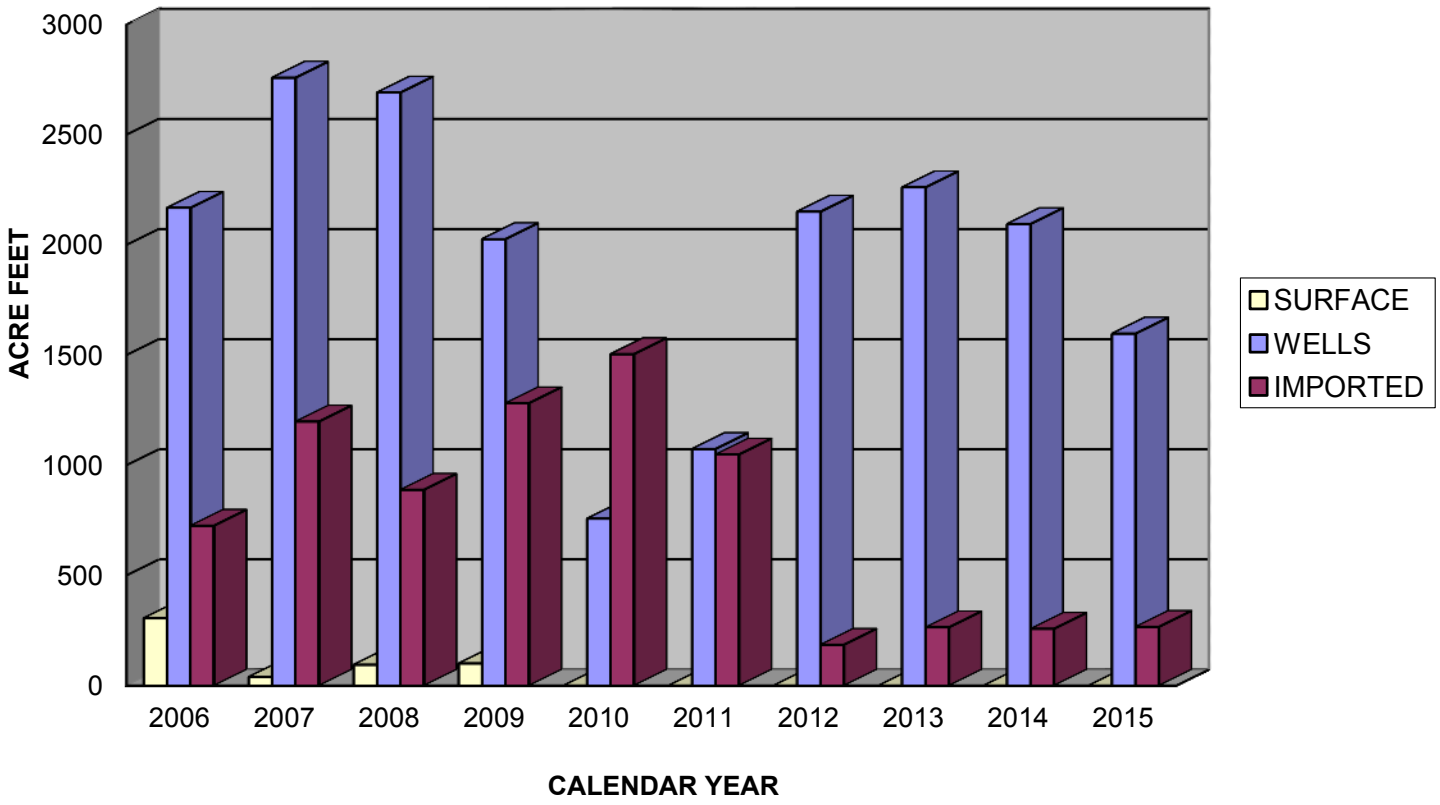
ENERGY COST BY PUMPING STATION AND WELLS
2011 - 2015

PUMPING STATIONS & WELLS	2015 ANNUAL ENERGY COST COST/AF	2014 ANNUAL ENERGY COST COST/AF	2013 ANNUAL ENERGY COST COST/AF	2012 ANNUAL ENERGY COST COST/AF	2011 ANNUAL ENERGY COST COST/AF
Well #3	$46,657.37	$65,176.53	$54,368.65	$34,069.28	$30,563.48
(Pump to Main Plant)	$77.89	$69.03	$54.92	$49.28	$51.01
Well #5	70,407.46	78,535.78	67,918.96	61,223.37	33,115.82
(Pump to Main Plant)	70.52	68.25	53.42	41.95	69.74
Main Plant	108,920.30	138,605.32	130,538.65	94,853.41	81,883.47
(Pump to Glenrose Resv.)	55.52	57.45	52.49	43.78	38.22
Glenrose Reservoir	37,992.59	47,151.47	53,564.53	42,982.41	41,362.66
(Pump to Wapello Resv.)	40.20	39.72	39.63	39.87	41.32
Wapello Reservoir	40,013.54	51,110.93	53,439.08	44,314.94	44,994.53
(Pump to Ware & La Vina & Swigart Resv.)	53.71	48.77	44.98	50.95	51.33
Ware Reservoir	11,267.75	21,049.34	22,370.95	20,205.52	19,959.09
(Pump to Coulter Resv.)	53.58	88.52 (New TOU Rate)	66.03	63.48	63.87
TOTAL ANNUAL ENERGY COST	$315,259.01	$401,629.37	$382,200.82	$297,648.93	$251,879.05

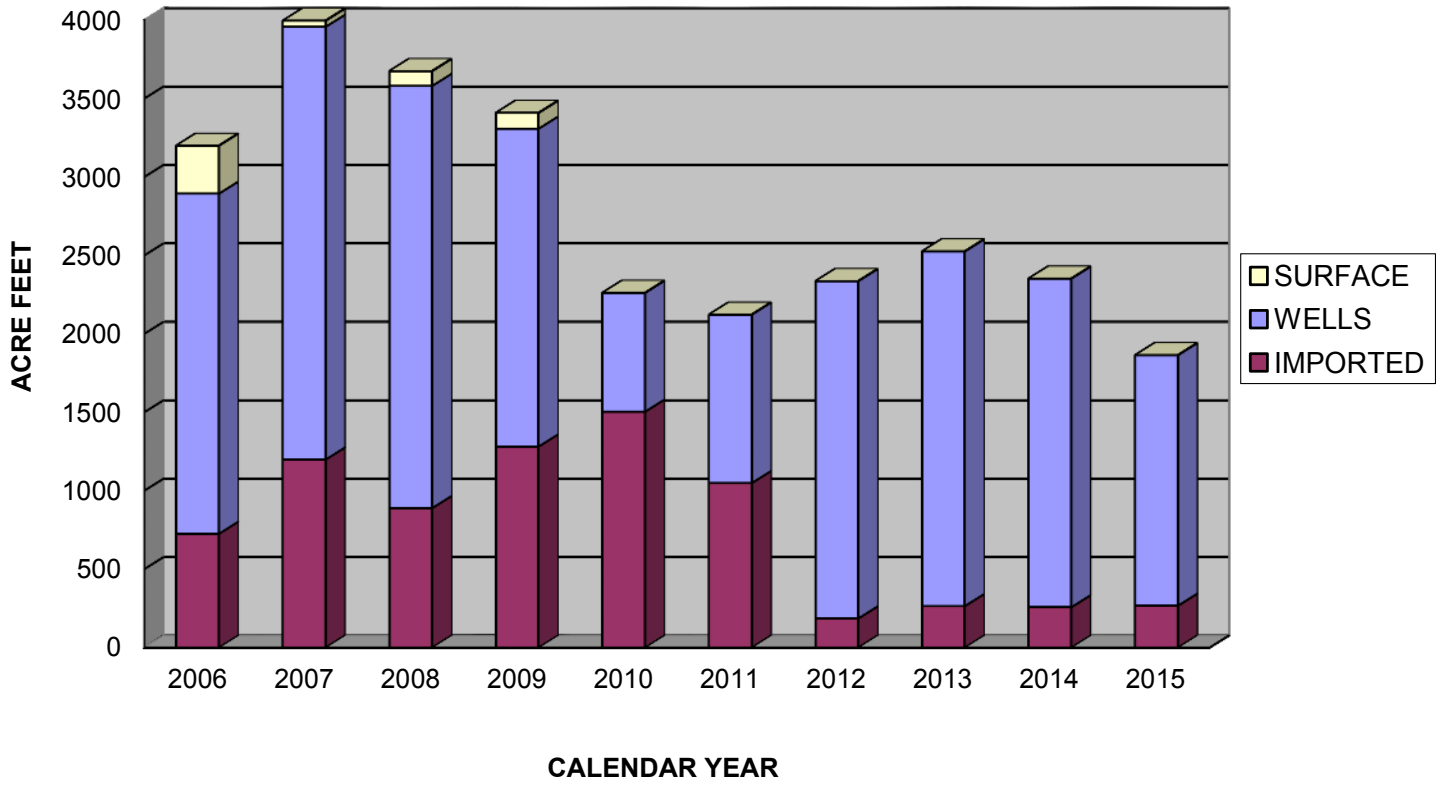
ANNUAL PRODUCTION IN ACRE FEET
2006 - 2015

CALENDAR YEAR	WELL #3	WELL #5	SURFACE	IMPORTED	TOTAL PRODUCTION	LESS LEASE WATER DELIVERY	ACTUAL PRODUCTION (LINCOLN)	RAINFALL (INCHES)
2015	599.02	998.41	0	266.71	1864.14	0	1864.14	10.22
2014	944.15	1150.76	0	257.49	2352.40	0	2352.40	14.88
2013	989.88	1271.38	0	264.35	2525.61	96.39	2429.22	10.13
2012	691.28	1459.58	0	185.33	2336.19	0	2336.19	18.20
2011	599.17	474.85	0	1048.62	2122.64	0	2122.64	17.65
2010	757.68	0.03	0	1504.14	2261.85	108.70	2153.15	37.00
2009	1269.96	756.55	100.55	1281.62	3408.68	915.40	2493.28	16.17
2008	1379.75	1311.92	94.56	888.76	3674.99	944.90	2730.09	30.30
2007	1398.73	1360.11	39.16	1198.16	3996.16	968.50	3027.66	9.54
2006	1183.90	984.60	305.70	725.70	3199.90	269.60	2930.30	21.73

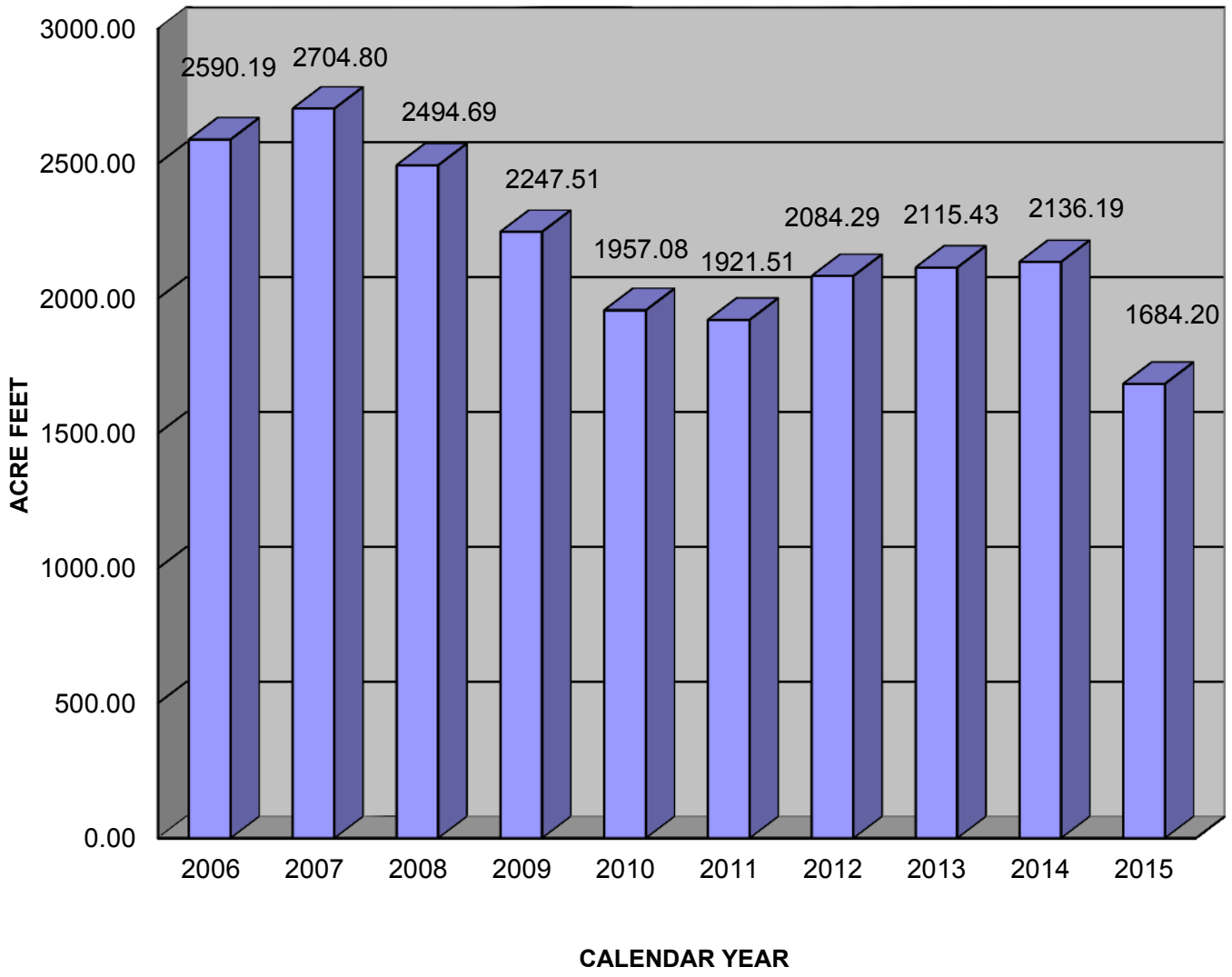
ANNUAL PRODUCTION BY SOURCE - SURFACE, WELLS & IMPORTED



TOTAL ANNUAL PRODUCTION - SURFACE, WELLS & IMPORTED



ANNUAL WATER SALES IN ACRE FEET
2006 - 2015



METERS AND SERVICE CONNECTIONS

New service connections installed in 2015	1	
Meters replaced in 2015	327	
Distribution system service connections in 2015	4471	
2015 average consumption per meter per day - Residential	299	gal.
2015 average consumption per meter per day - Commercial	1294	gal.
2015 average consumption per capita per day - Residential	85	gal.

NUMBER OF METERS BY SIZE

5/8”	3192
3/4”	820
1”	354
1½”	27
2”	70
3”	5
4”	3
TOTAL	**4471**

WELL PRODUCTION CAPACITY

Well #3 (drilled 1924)	900 GPM
Well #5 (drilled 1971)	1100 GPM

DISTRIBUTION LINES IN LINEAR FEET

Distribution System	288,323
Pumping Lines	18,128
TOTAL	306,451 or 58 miles

ANNUAL CANYON WATER BASIN RECHARGE IN ACRE FEET

CANYON WATER BASIN RECHARGE

Millard*	Station Fire Disruption
Swigart	0
El Prieto*	Station Fire Disruption
Millard/La Vina	89.94
TOTAL	89.94

All canyon water that flows to the spreading basin is metered with an allowable extraction the following year based on Raymond Basin Management Board percolation calculations.

*As a result of the devastation caused by the 2009 Station Fire, Lincoln Avenue stream gauging facilities in Millard and El Prieto Canyons are currently off-line.

WATER QUALITY

California Department of Public Health (CDPH) requires Lincoln Avenue Water Company to take distribution system water quality samples which include bacteriological, total trihalomethanes, volatile organic compounds, general physical, general mineral and inorganics, along with other scheduled analyses. Lincoln's system was in compliance with CDPH water quality standards at all times during 2015.

BOARD OF DIRECTORS
FOR THE YEAR 2015

JOHN C. CLAIRDAY — **PRESIDENT**

John C. Clairday, a graduate of the University of Southern California and Loyola Law School, has served on Lincoln Avenue's Board since 1993. A former public high school teacher, Mr. Clairday presently works for the Metropolitan Water District of Southern California. Prior to becoming Manager of Metropolitan's Real Property Group, Mr. Clairday was a Chief Deputy within the Office of the General Counsel.

ROBERT J. GOMPERZ — **VICE PRESIDENT**

Robert J. Gomperz has been a Board member since 1990. He is retired from the Metropolitan Water District of Southern California where he coordinated various communications programs to the public about Metropolitan's programs and policies. Mr. Gomperz has been a public relations professional for more than four decades. He has a degree in Management from the University of Redlands. Prior to joining Metropolitan, he was Pasadena City College's Public Information Director for 12 years. Mr. Gomperz also served a portion of Altadena for 10 years as a Foothill Municipal Water District director and as a Southern California region director on the Association of California Water Agencies Board.

LAWRENCE W. DUNCAN — **1ST VICE PRESIDENT**

Lawrence W. Duncan is a retired textile industry supervisor and a 48-year Altadena resident. Mr. Duncan is entering his 15th year as a member of the Lincoln Board and also serves as the Company's Community Liaison Officer.

ANN R. DOUGHERTY — **TREASURER**

Ann R. Dougherty is a retired Management Consultant. She worked as an Executive Director for various non-profit organizations for 26 years. She currently serves on the Board of Directors for the San Gabriel Valley Habitat for Humanity where she has been involved for 18 years. She is a 44-year resident of Altadena.

DIEGO FERNANDEZ — **ASSISTANT SECRETARY**

Diego Fernandez is an Operating Partner with the El Cholo Restaurant Management Group LLC. He started work with El Cholo at the age of 18 and in 1994 he was promoted to the position of General Manager. In 2000 he became an Operating Partner. As a partner, Diego has been involved with the opening of El Cholo-Pasadena, Dona Rosa Bakery & Taqueria along with Rose City Catering. Mr. Fernandez brings a broad array of business and management skills to Lincoln Avenue. Mr. Fernandez has lived in Altadena for the past 10 years and was appointed to the Board in 2014.

Office Staff

Maria Roxanna Autran
Office Supervisor oversees Bookkeeping/ Accounting and all administrative compliance.

Jennifer Betancourt
Water Quality Coordinator and Assistant Office Supervisor, oversees all areas of water quality compliance.

Wendy Childs
Customer Service Representative, Water Stock Clerk and Water Conservation Coordinator.

Jesus Bugarin
Customer Service Representative and Administrative Assistant.

Field Staff

Left to right: Michael Cotter, Field Supervisor
Michael Crowe, Field Representative
Asia Smith, Field Supervisor
Matthew Zamayoa, Field Representative
Jose Gonzalez, Field Representative
Jack Harms, Field Representative
Bartolo Gonzalez, Field Representative
David Castillo, Field Representative