

# Annual Report of Operations

# 2020

# Lincoln Avenue Water Company



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# Lincoln Avenue Water Company

March 31, 2021

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



Dear Mr. Clairday:

On behalf of Staff and Management of Lincoln Avenue Water Company (Lincoln Avenue), I am pleased to present the 2020 Annual Report of Operations.

The year 2020 proved to be unprecedented. The COVID-19 pandemic transformed the world and highlighted the responsibilities of critical industries, such as water. It also brought forth the importance of prioritizing the health of customer and employees. Although we could not have predicted the change in our operating environment, the strategies we implemented have proven effective and strengthened our ability to provide safe and reliable water service during uncertain times.

While faced with many challenges, the year wasn't without accomplishments. As a testament to the dedication and resiliency of our staff, Lincoln still completed the majority of capital projects planned for the year.

Our major project for 2020 was the completion of the North Glenrose Reservoir Rehabilitation project. Through capital improvement planning and partial financing we were able to complete this 2 year project under budget and ahead of schedule.

We closed out the year with a major pipeline replacement project on Mountain View Street. This project involved the replacement of over 2,700 feet of 65 year old pipe. This upgrade provides improved fire flow protection along with increased water volume and pressure for all customers in this section of our service area.

While we continue to plan for the next capital project we never lose focus on the importance of maintaining and operating a water system that has served our shareholders for more than 120 years.

The professional staff at Lincoln Avenue remains committed to providing the highest quality and most reliable water service to our customers at the most economically feasible cost.

Sincerely,  
Lincoln Avenue Water Company

A handwritten signature in black ink, appearing to read "J Betancourt Torres". The signature is fluid and cursive.

Jennifer Betancourt Torres  
General Manager

# NORTH GLENROSE RESERVOIR

We entered 2020 continuing our focus on the Glenrose Reservoir Rehabilitation Project. With the new stem wall and column footings completed, we moved on to the installation of the new 18” diameter concrete columns. The larger columns and footings are necessary to support the weight of the new roof.



The Board visits the construction site.



The column form is assembled, then the crane is used to lower it into the reservoir.



The column form is secured into place and prepped for concrete pour.

Following the completion of the columns, scaffolding is erected to support the form for the roof.



# NORTH GLENROSE RESERVOIR



Temporary wood forms are used to shape and level each section of the cast in place concrete roof.

In addition to the regular construction crew and project managers, Lincoln Avenue contracted engineers visited the site regularly to conduct important inspections and take concrete samples to make sure each batch met quality standards.



Rebar is installed to reinforce and strengthen the structure.



The concrete is poured in an alternating patterns to allow the work to be completed in a more efficient manner.



Once the concrete is poured it's covered with heavy curing mats and kept continuously wet for 7 days. This process of water curing improves compression strength and prevents cracking.



An overhead view of the completed roof.

# NORTH GLENROSE RESERVOIR

Several design options were considered for this project. With a service life expectancy of 75 years and minimal maintenance requirements, the concrete structure shown to be more resilient and reliable for the future of this important site. As you can see from the pictures below, the new columns and roof are a considerable upgrade from the previous structure.



# NORTH GLENROSE RESERVOIR

Completed under budget and ahead of schedule, the North Glenrose Reservoir Rehabilitation is our first major reservoir project since 2006. This significant accomplishment is just one of the many projects planned over the next 10 years.

Southwest corner looking northeast.



The reservoir interior.



Northwest corner looking southeast.



A view of the interior as the reservoir is refilled.



The new secured entrance into the reservoir.

The completion of this project not only improves the reliability of this reservoir, the new concrete roof provides a large, stable surface, of substantial strength, for a future solar array system. Utilizing clean energy and reducing energy cost is one of the company's long term goals.

# Mountain View Pipeline

Lincoln Avenue's major pipeline replacement project for the year took place on Mountain View Street. This project included the replacement of 2,700 feet of aged and undersized water main. From Lincoln Avenue to Fair Oaks Blvd, this water main has been providing water to this section of Mountain View for 65 years.



An adjacent water main connection is exposed and prepared to be connected to the new pipeline.



The ditch is covered with a metal plate and secured so traffic can safely resume.



An isolation valve is installed on a section of pipe.



The pipe is lowered into place.





# Mountain View Pipeline

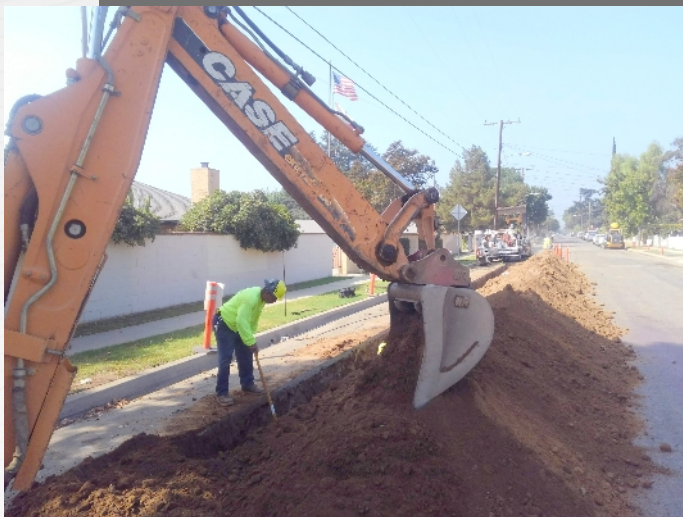


All pipeline projects must be carefully planned and executed to avoid disturbing neighboring underground utilities.

The end of the line at Mountain View and Fair Oaks.



After the installation of each section is completed, the ditch is immediately backfilled.



After backfilling, the soil is compacted.

# Mountain View Pipeline

In addition to the water main, this project entailed the installation of 60 service lines, 4 fire hydrants, 13 isolation valves and 8 tie-ins to the surrounding water mains. This upgrade provides improved fire flow protection along with increased water volume and pressure for all customers in this section of our



New service lines and meters are installed.



Final paving marks the completion of this project.



# Bob Lucas Library Demonstration Garden

In early 2019, Lincoln Avenue was approached by one of our shareholders asking if the company could assist the local library with landscape improvements. Through our imported water supplier, Foothill Municipal Water District, the library was able to secure 100% of the material cost to revitalize the exterior with drought tolerant and California native plants.

This new demonstration garden creates a space the community can enjoy and opportunity for future educational programs.



The library held several events inviting community volunteers to help with the project.



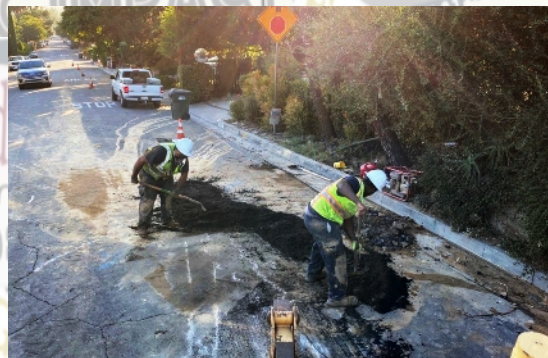
Lincoln Avenue Director and Shareholder,  
Lawrence Duncan, assists with planting.



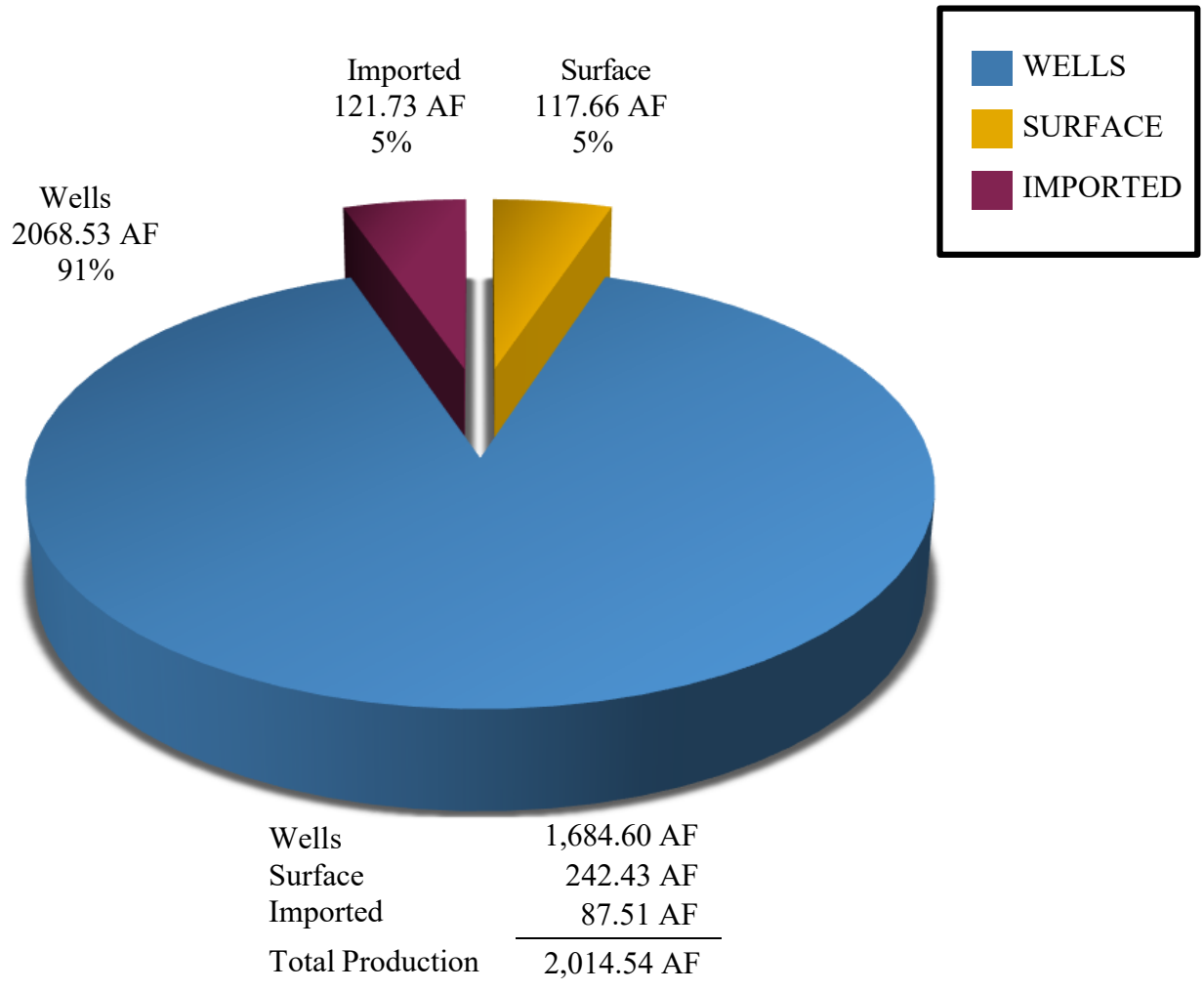
# WATER SERVICE RELIABILITY DURING THE PANDEMIC



March 20, 2020 marked the last in-person Board Meeting held at Lincoln Avenue Water Company. It was also the last time our full staff was in the same building together. We spent the remainder of 2020 adapting to schedule changes, evolving safety & cleaning protocols, difficulties securing personal protective equipment & supplies and trying to stay healthy. While our story is not unique, it demonstrates the resiliency and dedication of our staff to Lincoln Avenue and the community of Altadena.



## 2020 WATER PRODUCTION BY SOURCE



**WATER SALES AND PRODUCTION FOR 2020  
IN ACRE FEET**

MONTH	IMPORTED WATER PURCHASE	WELL PRODUCTION	LOCAL SURFACE WATER	TOTAL PRODUCTION	LEASE WATER DELIVERY	SALES	RAIN FALL (INCHES)
January	0	107.24	19.81	127.05	0	110.07	0.24
February	15.33	117.13	13.47	130.60	0	114.86	0.66
March	0	140.71	15.20	117.24	0	133.23	5.75
April	0	112.22	23.23	135.45	39.40	105.68	6.20
May	0	217.49	28.67	246.16	35.86	143.88	0.41
June	0	199.20	15.29	214.49	44.50	199.85	0
July	13.36	220.24	1.99	235.59	0	217.80	0
August	48.55	201.63	0	250.18	0	228.78	0
September	24.77	202.60	0	227.37	0	232.18	0
October	19.72	196.95	0	216.67	0	203.17	0.01
November	0	181.86	0	181.86	0	187.92	0.19
December	0	171.26	0	171.26	0	168.24	1.54
<b>TOTAL</b>	<b>121.73</b>	<b>2068.53</b>	<b>117.66</b>	<b>2307.92</b>	<b>119.76</b>	<b>2045.65</b>	<b>15.00</b>

**PUMPED FROM WELLS**

WELL #3	0.04
WELL #5	40.18
WELL #6	2028.31
<b>TOTAL</b>	<u>2068.53</u>

Total Production	2307.92
Lease Water Delivery	<u>-119.76</u>
Production for Lincoln	2188.16
Total Sales	<u>-2045.65</u>
Subtotal	142.51
Treatment Plant Operation & Water Quality Control	<u>-46.12</u>
Non-Sales Production	96.39 or 5%

**Non-Sales 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.

## ENERGY COST BY WELLS AND PUMPING STATIONS

2016 - 2020

WELLS & PUMPING STATIONS	2020 ANNUAL		2019 ANNUAL		2018 ANNUAL		2017 ANNUAL		2016 ANNUAL	
	ENERGY COST	COST/AF	ENERGY COST	COST/AF	ENERGY COST	COST/AF	ENERGY COST	COST/AF	ENERGY COST	COST/AF
Well #3 (Pump to Main Plant)	<b>1,798.08</b>		493.40		1,104.99		22,453.11		43,575.63	
	N/A		N/A		84.35		75.47		72.90	
Well #5 (Pump to Main Plant)	<b>2,797.34</b>		17,302.41		5,544.79		11,690.17		65,635.50	
	<b>69.62</b>		68.54		65.23		66.73		65.05	
Well #6 (Pump to Main Plant)	<b>188,913.89</b>		110,599.19		155,201.39		68,304.34			
	<b>93.14</b>		77.24		80.85		100.21			
Main Plant (Pump to Glenrose Resv.)	<b>146,873.32</b>		99,378.19		116,716.73		95,843.33		111,084.41	
	<b>67.21</b>		55.27		54.32		46.33		58.05	
Glenrose Reservoir (Pump to Wapello Resv.)	<b>46,251.85</b>		34,375.46		35,405.63		39,256.78		38,950.26	
	<b>48.75</b>		36.23		32.23		38.47		38.88	
Wapello Reservoir (Pump to Ware & La Vina & Swigart Resv.)	<b>49,713.42</b>		39,396.18		44,594.31		43,256.69		40,686.37	
	<b>61.00</b>		53.91		51.39		53.81		54.70	
Ware Reservoir (Pump to Coulter Resv.)	<b>2901.89*</b>		704.18*		1284.19*		4,153.23		11,356.20	
	<b>20.41</b>		6.10		6.28		23.98		54.46	
<b>TOTAL ANNUAL ENERGY COST</b>	<b>\$439,249.79</b>		\$302,249.01		\$359,852.03		\$284,962.65		\$311,288.37	

\*Total cost after applying Solar Energy Generation Credit.

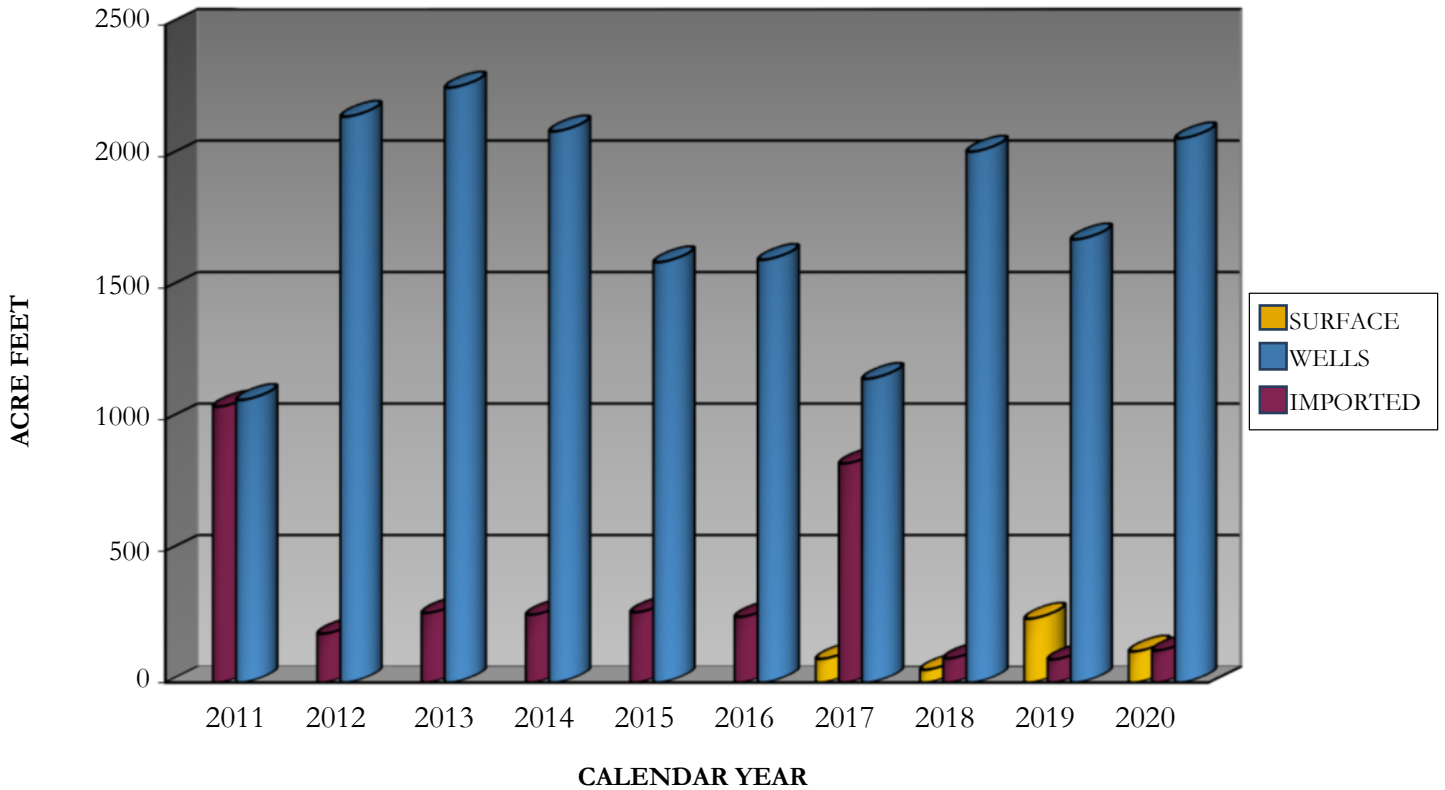
**ANNUAL PRODUCTION IN ACRE FEET**  
2011 - 2020

CALENDAR YEAR	WELL #3	WELL #5	WELL #6	SURFACE	IMPORTED	TOTAL PRODUCTION	LESS LEASE WATER DELIVERY	ACTUAL PRODUCTION (LINCOLN)	RAINFALL (INCHES)
<b>2020</b>	<b>0.04</b>	<b>40.18</b>	<b>2028.31</b>	<b>117.66</b>	<b>121.73</b>	<b>2307.92</b>	<b>119.76</b>	<b>2188.16</b>	<b>15.00</b>
2019	0.27	252.43	1431.90	242.43	87.51	2014.54	0	2014.54	36.16
2018	13.10	85.00	1919.72	48.23	91.55	2157.61	0	2157.61	15.99
2017	297.50	175.19	681.60	89.49	832.43	2076.21	0	2076.21	19.47
2016	597.73	1008.99		0	249.26	1855.98	0	1855.98	18.60
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

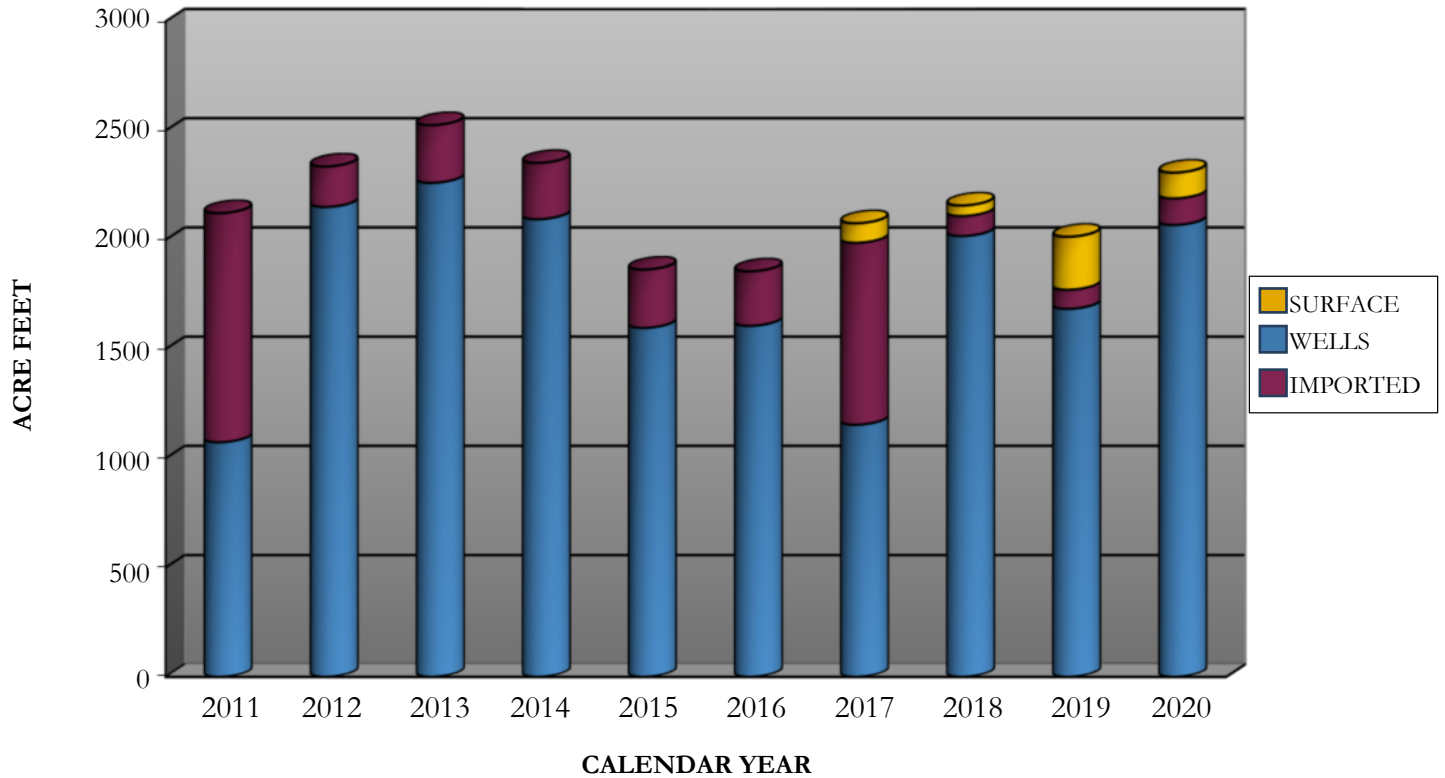
*Note: Well 6 began operation in August 2017*



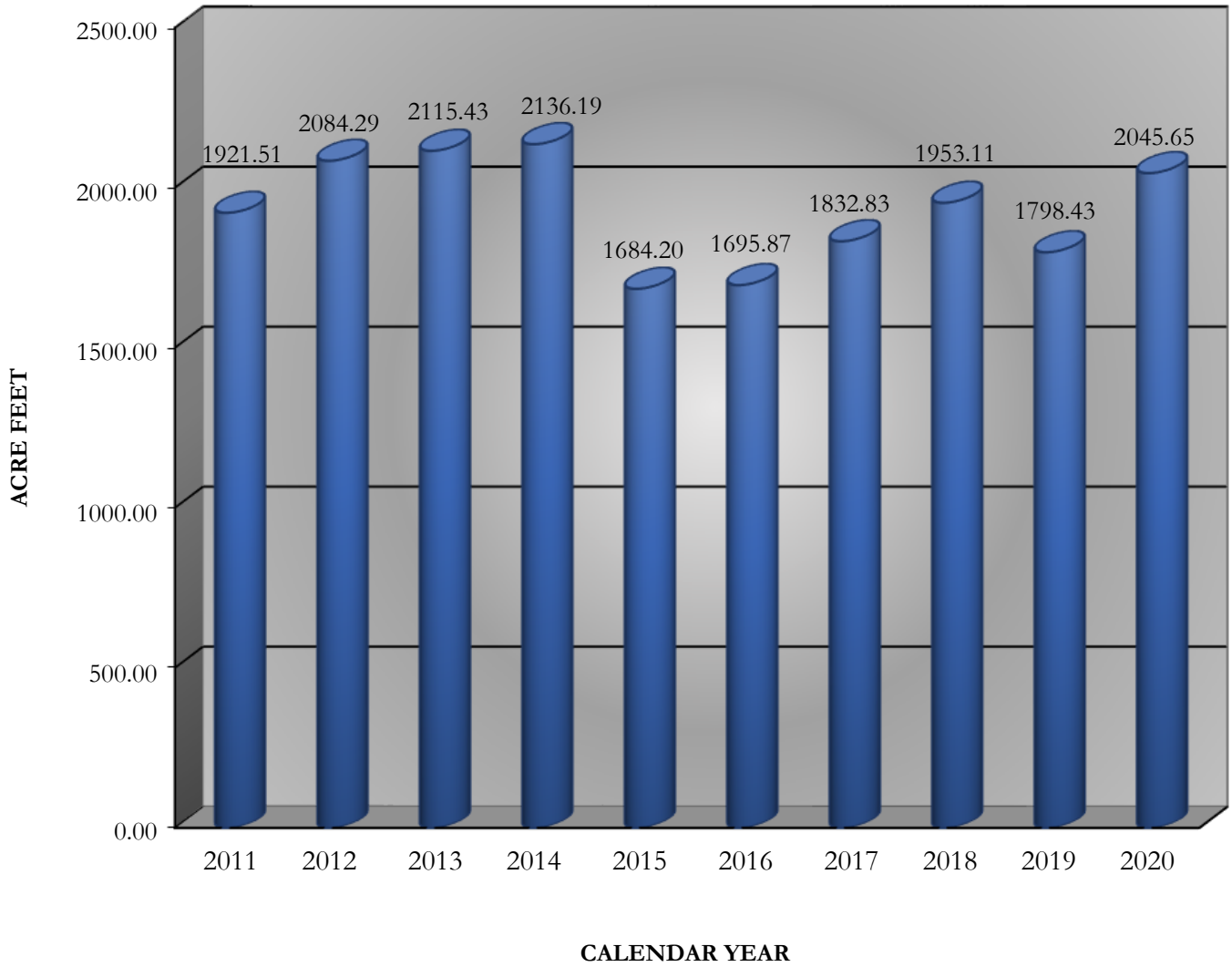
### ANNUAL PRODUCTION BY SOURCE - SURFACE, WELLS & IMPORTED



### TOTAL ANNUAL PRODUCTION - SURFACE, WELLS & IMPORTED



**ANNUAL WATER SALES IN ACRE FEET  
2011 - 2020**



## METERS AND SERVICE CONNECTIONS

New service connections installed in 2020	0
Meters replaced in 2020	265
Distribution system service connections in 2020	4476
2020 average consumption per meter per day - Residential	367 gal.
2020 average consumption per meter per day - Commercial	1572 gal.
2020 average consumption per capita per day - Residential	105 gal.

## NUMBER OF METERS BY SIZE

5/8"	2375
3/4"	1626
1"	368
1½"	28
2"	70
3"	6
4"	3
<b>TOTAL</b>	<b>4476</b>

## WELL PRODUCTION CAPACITY

Well #3 (drilled 1924)	900 GPM
Well #5 (drilled 1971)	1100 GPM
Well #6 (drilled 2016)	2000 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

Swigart	162.60
El Prieto	28.06
Millard/La Vina*	250.38
<b>TOTAL</b>	<b>441.04</b>

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.

\*Maximum allowable spread credit for Millard/La Vina is 0.65 CFS.

## WATER QUALITY



California State Water Resources Control Board, Division of Drinking Water (DDW) 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 DDW water quality standards at all times during 2020.

## BOARD OF DIRECTORS FOR THE YEAR 2020



**JOHN CLAIRDAY**

**PRESIDENT**

John Clairday, a graduate of the University of Southern California and Loyola Law School, has served on Lincoln Avenue's Board since 1993. Mr. Clairday recently retired, after 27 years, from the Metropolitan Water District of Southern California, where he served as Chief Deputy General Counsel within the legal department, and as manager of the District's Real Estate Group. In addition to serving as President of Lincoln Avenue's Board, Mr. Clairday is a member of the San Gabriel Valley Habitat for Humanity Board of Directors.



**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 five 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 represented West 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 53-year Altadena resident. Mr. Duncan is entering his 20th year as a member of the Lincoln Board and also serves as the Company's Community Liaison Officer.



**DIEGO FERNANDEZ**

**TREASURER**

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, Rose City Catering and Hart Pony Baseball & Softball. Mr. Fernandez brings a broad array of business and management skills to Lincoln Avenue. Mr. Fernandez has lived in Altadena for the past 15 years and was appointed to the Board in 2014.



**VICKIE THOMPSON**

**ASSISTANT SECRETARY**

Vickie Thompson graduated from Humboldt State College and went to work at the City of Hope - Beckman Research Institute in Duarte. She retired after working there for 40 years. She started work as a Research Associate, became the Manager of the Research Storeroom, and retired as the Manager of Purchasing. She has lived in Altadena since 1995 and enjoys walking with her husband in the neighborhood and near-by foothills. She was appointed to the Board in November 2020.

# Office Staff

***Maria  
Roxanna  
Autran***

**Years of  
Service  
39**



Office Supervisor  
oversees Bookkeeping/Accounting  
and all administrative compliance.

***Benjamin  
Bowen***

**Years of  
Service  
2**



Water Quality Coordinator  
and Administrative Assistant  
oversees all areas of water quality compliance.



***Wendy  
Childs***

**Years of  
Service  
13**

Customer Service Representative,  
Water Stock Clerk and  
Water Conservation Coordinator



***Jesus  
Bugarin***

**Years of  
Service  
10**

Customer Service Representative  
and Administrative Assistant

# *Field Staff*



## **Name - Title - Years of Service**

### **Back Row:**

**Jeremy Rogers - Water System Operator - 3 years**

**John Earnest - Water System Operator - 1 year**

**Michael Cotter - Field Supervisor - 17 years**

### **Middle Row:**

**Asia Smith - Field Supervisor - 32 years**

**Jack Harms - Water System Operator - 20 years**

### **Front Row:**

**Dave Castillo - Water System Operator - 6 years**