

MEMORANDUM

TO: NATALIE STORK

FROM: RITA P. MAGUIRE, ESQ.

CC: KEN PETRUZZELLI, ESQ.

DATE: JULY 11, 2016

RE: NWNA RESPONSE TO ARROWHEAD WATER RIGHTS INQUIRY

Dear Ms. Stork:

We appreciated meeting with you, Victor Vasquez, Cathy Mrowka and Ken Petruzzelli on June 16 to follow-up on your inquiry of May 4, 2016 regarding Nestlé Waters North America's (NWNA) pre-1914 water rights in Strawberry Canyon.

We submit this memorandum in response to your request to "clarify the underlying basis of the California Consolidated Water Company (CCWC) water right prior to the *Del Rosa* Judgment."

Given the amount of time that has passed since the issuance of the *Del Rosa* Stipulated Judgment in 1931 and the underlying age of the water rights it adjudicated, the facts below provide additional evidence of the pre-1914 status of NWNA's water rights in Strawberry Canyon.

I. Sale of Arrowhead Springs Hotel's Water Rights to California Consolidated Water Company

The *Del Rosa* case stems from the implementation of a series of agreements executed by Arrowhead Springs Corporation (ASC) and California Consolidated Water Company (CCWC) between 1929 and 1931. These agreements convey certain water rights held by ASC in East Twin Creek and its tributaries to CCWC. The first of these agreements was a deed dated February 27, 1929 (the 1929 Deed) and recorded in the County Recorder's office of San Bernardino County in Book 694, page 270 (see Attachment 1). The 1929 Deed included a description of the property and water rights conveyed from ASC to CCWC:

"all subterranean waters....in Strawberry and Cold Water Canyons (aka East Twin Creek), belonging to the grantor, including all waters now being developed and produced by said grantor in said Canyons, together with such additional subterranean waters now belonging to the grantor as the grantee, its successors or assigns, may hereafter desire to develop..."

CCWC understood that it had acquired from ASC the right to develop and take water for its commercial uses without restriction or limitation from the East Twin Creek watershed. However, soon thereafter, it appears that a dispute arose between the two parties. To resolve it, ASC and CCWC entered into a second agreement dated August 6, 1930 (the 1930 Agreement) and recorded in the County Recorder's office of San Bernardino County in Book 648, page 122 (see Attachment 2). Pursuant to the 1930 Agreement, CCWC agreed to construct a pipeline to the springs at the upper reaches of Strawberry Canyon. Specifically, it stated:

"Arrowhead hereby grants to Consolidated (without any warranty whatsoever, except the warranty that Arrowhead has not conveyed or transferred to any other person the same right, or any, title or interest therein) the sole and exclusive right to develop water from any and all sources whatever, whether surface, subterranean, seepage or

otherwise, in Strawberry Canyon, and whether within or without the real properties now owned by Arrowhead, and hereby grants to Consolidated (without any warranty whatsoever, except the warranty that Arrowhead has not conveyed or transferred to any other person the same right, or any right, title or interest therein) one-half of all water developed from any and all sources whatever in Strawberry Canyon, reserving to itself one-half of all such water.”

In a third agreement dated September 26, 1931 and recorded in Book 1016, page 303, of the Official Records of San Bernardino County (the 1931 Agreement), ASC’s reservation of one-half of the water developed in Strawberry Canyon was reduced to 20% (see Attachment 3). The 1931 Agreement made the following grant from ASC to CCWC:

“...Arrowhead grants to Consolidated any and all right, title or interest which Arrowhead now has to develop water from any and all sources whatever, whether surface, subterranean, seepage, or otherwise, in Strawberry Canyon and the lateral canyons northerly of the said northerly line of the said South half of said Sections 31 and 32 above described.

“Arrowhead also grants to Consolidated all right, title or interest which it now has or heretofore had in or to the title to, or ownership of, any and all water that Consolidated has heretofore or may hereafter develop from any and all sources whatsoever in Strawberry Canyon and lateral canyons northerly of said Sections 31 and 32 subject, however, to the right of Arrowhead to have delivered to it by Consolidated at the point of delivery aforesaid, twenty percent (20%) of all such water developed and saved by Consolidated.”

Each of these agreements gave CCWC a successively larger piece of ASC’s water rights, such that the last agreement granted CCWC all of the surface water and groundwater from all the water sources in Strawberry Canyon and the lateral canyons in the northern half of Sections 31 and 32. Not surprisingly, the rapid expansion of CCWC’s water rights, in addition to ASC’s remaining rights in East Twin Creek, led Del Rosa Mutual Water Company (DRMWC) to sue the two due to a concern that these agreements would interfere with or lessen the quantity of water DRMWC believed it had the right to take from East Twin Creek.¹ Ultimately, the three parties agreed to share the water resources in East Twin Creek and its tributaries, as recorded in *Del Rosa*. In order to understand the nature and scope of ASC’s historic water rights, it is necessary to understand the development of the Arrowhead Hot Springs Hotel and its related business enterprises.

II. History of the Water Rights at Arrowhead Hotel

In *Del Rosa*, Judge Leonard found that ASC and its predecessors-in-interest had been operating the Arrowhead Springs Hotel and putting the waters of Strawberry Canyon to beneficial use for over 50 years (at least since 1881). In 1865, David Noble Smith first filed a possessory claim to the lands where the Arrowhead Hotel is located, and a subsequent patent from the United States was recorded in 1882. See Pioneer Title Report at p. 1. Mr. Smith initially opened an infirmary on the site and later a hotel to take advantage of the naturally occurring hot springs in the area. One of the original notices of water appropriation filed by A.F. Coulter, President of Arrowhead Hot Springs Hotel Company in 1887 “claims the water here flowing or to flow in this Strawberry Canon... of one hundred and forty inches measured under a four inch pressure for irrigation domestic, mechanical, manufacturing, oatning (sic) and medical

¹ *Del Rosa Mutual Water Company v. D.J. Carpenter, et al.*, No. 31798, San Bernardino County Superior Court, October 31, 1931.

purposes upon its lands....” See Pioneer Title Report at #0545. Undoubtedly, the water from Strawberry Canyon was put to beneficial use downstream at the Hotel prior to 1914. It also appears to have been a substantial volume of water. What started out as a health resort and spa soon became secondary to a bottling business selling spring water to hotel residents and to customers in and around the Los Angeles area.

According to a publication produced by Arrowhead Puritas Waters in celebration of its Diamond Jubilee (1894-1969), the Arrowhead Springs Corporation began selling spring water in Los Angeles from the San Bernardino Mountains starting in 1905 (see Attachment 4). The first bottling took place in the basement of the Arrowhead Hot Springs Hotel. Initially, the spring water was sold to the Hotel’s residents but as the popularity of the spring water grew, the water was bottled in 5-gallon units and shipped to customers in Los Angeles via the Pacific Electric Railway. A Pacific Electric document titled “Local Rail Lines in the Orange Empire” corroborates this history (see Attachment 5).

“The San Bernardino-Redlands group of lines was controlled by the San Bernardino Valley Traction company....The Eastern Division (District) was formed on 30 August 1913 by merging the San Bernardino and the Riverside Divisions, which had been created on 30 September 1911.”

According to Mark Landis, author of “*Arrowhead Springs, California’s Ideal Resort*” published in 2013, the Pacific Electric Railway built the Arrowhead Line in 1912. Specially designed rail cars were filled with spring water at the terminus of the lines near the hotel “to maintain the purity and fresh taste of the spring water during transit to the Los Angeles bottling plant.”²

In 1909, the Arrowhead Springs Company was formed for the purpose of bottling and commercially marketing water from the Arrowhead Hot Springs. Advertisements for the sale of bottled water from the Resort appeared in the Los Angeles *Times* on July 25, 1909.

“Arrowhead Spring Water. From the famous Arrowhead Springs Resort. 50 cents case, 5-gal. demijohn 40 cents. Carbonated splits, \$1 per doz. Phone F4446. 411 Currier Bldg.”

A long-time Nwana employee who has gathered an extensive file on Arrowhead’s operations from its earliest days, determined that distribution of spring water in Los Angeles began in 1909, and that bottling began in Los Angeles sometime between 1912 and 1915. Before bottling operations began in Los Angeles, the facility was used for distribution of spring water bottled at the Arrowhead Hotel property. His information is substantiated by listings in the Los Angeles phone directory for the Arrowhead Springs Water Co. starting in 1910 at 1515 E. 7th St.³ In 1918, the Arrowhead Springs Co Inc. was listed at 1566 E. Washington St., the current address of Nwana’s LA bottling facility, celebrating its 100-year anniversary next year (in 2017).

Thus, although the *Del Rosa* Judgment did not expressly describe the early bottling and sale of Arrowhead spring water in Los Angeles, there is substantial evidence of such activities. This evidence supports a pre-1914 appropriative right to the flows in East Twin Creek in addition to riparian uses on the Arrowhead Hotel property. It is also consistent with the language in *Del Rosa* acknowledging that ASC held water rights in East Twin Creek as a “riparian owner and as appropriator and by prescription.” *Del Rosa* at p. 7, line 7.

² Landis, “*Arrowhead Springs*” at p. 75.

³ City Phone Directories are available online at <http://rescarta.lapl.org/ResCarta-Web/jsp/RcWebSimpleSearch.jsp>.

The water rights conveyed by ASC to CCWC pursuant to the 1929 Deed, the 1930 Agreement, and the 1931 Agreement were both riparian and appropriative. The forms of such transfers are not unusual when dealing with water rights, particularly those that pre-date statutory permitting requirements.

In California, appropriative rights are quantified based upon the continuous beneficial use of the water. One of the ways to quantify the beneficial use of water from Strawberry Creek is through the obligation imposed on CCWC in the 1930 Agreement. As noted above, CCWC agreed to build a pipeline to the springs at the upper reaches of Strawberry Canyon (now known as Arrowhead Springs). Records indicate that the pipeline was “at least 3” in diameter,”⁴ and ASC’s pipeline to which it connected.⁵ Today, NWNA’s pipeline is 4” in diameter and has been in continuous use since the 1930’s.

Prior to the 1930’s, there was likely other infrastructure such as ditches and flumes that were used to convey the water down the steep canyon but were destroyed long ago. For example, we know that in addition to a myriad of uses for the water from Strawberry Creek at the Hotel, railroad tanker cars regularly transported the spring water to Los Angeles as early as 1912 to be bottled at facilities there. ASC had clearly developed an active, growing business concern involving the bottling and distribution of spring water from Strawberry Canyon. CCWC was acquiring that business through the three agreements discussed above. Evidence of the continuing diversion of the pre-1914 volume of water is the fact that Arrowhead initially split the volume of water with CCWC in half and ultimately reduced its take to 20% rather than seeking to appropriate additional water for its own use or that of CCWC.

Even though A.F. Coulter’s 1887 Notice refers to flows in “Strawberry Canon,” we do not know where those diversions originally occurred. Even if the diversion occurred downstream, the Notice indicates that the Hotel was reliant upon the flows from Strawberry Canyon. Under the California Water Code, an appropriator may change the point of diversion so long as the change does not operate to the injury of any legal user of the water. Water Code Section 1706 states:

“The person entitled to the use of water by virtue of an appropriation other than under the Water Commission Act or this code may change the point of diversion, place of use, or purpose of use if others are not injured by such change, and may extend the ditch, flume, pipe, or aqueduct by which the diversion is made to places beyond that where the first use was made.”

Pursuant to that statute, the court in *Orange County Water District v. City of Riverside* (1959) 343 P.2d 450, 173 Cal.App. 2d 137, 192 found no legal impediment to the cities of Redlands, San Bernardino, and Riverside changing their places of diversion as appropriators at will, provided no one else was injured. The court stated “[t]he source of the supply remains the same – the Santa Ana River system.” *Id.* If a court could find that any place of diversion along the entire Santa Ana River could be changed for any other place of diversion so long as it did not injure one with a superior right, it could certainly find that a change in the place of diversion from one section of East Twin Creek was not a new appropriation of water, but simply a change in an existing appropriation allowed by Section 1706 of the Water Code. Strawberry Creek, Coldwater Creek, Waterman Creek, all flow into East Twin Creek forming a portion of the headwaters of the Santa Ana River. The use of springs at Strawberry Creek by NWNA and its predecessors-in-interest is a change in the place of diversion of a pre-1914 right. Only DRMWC claimed injury by the change, and its injury was remedied by the payment of damages as ordered by the *Del Rosa* court.

⁴ Agreement between Arrowhead Springs Corporation and California Consolidated Water Company dated August 6, 1930, p. 2.

⁵ *Id.*

III. Del Rosa Mutual Water Company's Water Rights in East Twin Creek

A review of local historical documents indicates that DRMWC and its predecessors-in-interest also held water rights in East Twin Creek. Its water rights date from 1876, perhaps earlier.⁶ Water from East Twin Creek was diverted into a ditch that took water just upstream from the mouth of the Creek and delivered the water to irrigated farmland immediately south of the Arrowhead Hot Springs Hotel. The capacity of this ditch was estimated to be 60-70 miner's inches. *Id.* Two subsequent ditches were constructed in the 1880's, both of which headed farther up the canyon than the 1876 ditch. An association called the Kansas City Real Estate Investment Corp. built the second of these two ditches following its acquisition of the former irrigators' water rights.

In 1890-91, the Kansas City corporation acquired a tract of land just south of the Arrowhead Hot Springs Hotel and subdivided it into 10-acre lots. (See attached map, Attachment 6). The deed to each lot included rights to East Twin Creek water and to pipelines built at the same time. In December 1901, the individual water right owners formed the Del Rosa Water Company and conveyed all rights in water, water distribution, and easement to the new company. In 1922, the Del Rosa Water Co. became DRMWC. It appears that the East San Bernardino County Water District and the City of San Bernardino now own much of the stock in DRMWC.⁷ Copies of the original claims for the water rights held by DRMWC are included in the Pioneer Title Insurance Trust Company Report previously given to the SWRCB, beginning on page 10 and continuing through page 16. These recorded notices are further evidence that like ASC, the water rights of the DRMWC were pre-1914 water rights properly recorded in the San Bernardino County Recorder's Office in conformance with the legal requirements to establish a water right in California at the time.

What is clear from the history of DRMWC is that the water rights it held were pre-1914 appropriative rights first diverted from a ditch constructed in 1876 that carried water from East Twin Creek to non-contiguous land for irrigation, domestic and ultimately, municipal uses. *Del Rosa* also recognized the appropriative nature of its rights. (See *Del Rosa* at p. 4, lines 1-3.) This history becomes important because in addition to the water rights CCWC acquired from ASC, it is reasonable to conclude that it acquired some of DRMWC's pre-1914 rights as part of the *Del Rosa* Judgment.

Del Rosa recites a finding that CCWC's taking of water from Strawberry Creek was injurious to DRMWC but that the injury could be compensated in damages and such damages were ordered to be paid to DRMWC.

“(d) That plaintiff have and recover of and from the defendant, California Consolidated Water Company, the sum of fifteen thousand dollars (\$15,000.00), and from defendant, Arrowhead Springs Corporations, Ltd., the sum of five thousand dollars (\$5,000.00).”

While *Del Rosa* is silent as to the purpose of the \$20,000 payment, it either relates to DRMWC's subordinating its claims in East Twin Creek to the rights of CCWC and ASC, or the mitigation of damages to DRMWC as a result of any impacts of the upstream diversions by the two defendants. The amount of the rights are unquantified but we do know that DRMWC as a party to the stipulated judgment was satisfied with the financial compensation it received for any harms to its water right resulting from CCWC's upstream diversion.

⁶ “Development of Water Facilities in the Santa Ana River Basin, California, 1810-1968” prepared by the U.S. Geological Survey.

⁷ *Id.*

III. Conclusion

Del Rosa affirms that the plaintiff was a bona fide appropriator of “all” the water of East Twin Creek and its various tributaries *except for* the diversions and use by ASC, CCWC, and the miscellaneous defendants as adjudicated in the judgment. Thus, it is clear that Judge Leonard was aware that he was adjudicating the rights of all of the water users in the entire East Twin Creek watershed and that their respective water rights would encompass all of the available water. *See Del Rosa*, p. 4, para. 3.

Against this background, *Del Rosa* concludes that ASC is entitled, whether as riparian, appropriator or prescriptive user, to “continue so to take and use water” from East Twin Creek in priority above DRMWC. *Del Rosa*, p. 7, para. 4. Insofar as CCWC’s express water rights are concerned, paragraph (b) of *Del Rosa* provides that, subject to the provisions of subdivision (i), CCWC is “the owner of the right to take, impound, divert, transport and carry away...any and all of the water of all springs situated or obtainable in the part of East Twin Creek known as ‘Strawberry Creek and Canyon.’” *Del Rosa* at p. 10. The language here is significant because Judge Leonard is determining that amongst all of the water users, including the co-defendants and cross-claimants, CCWC “owns” the right to divert and use the waters of Strawberry Creek at its then point of diversion (and now Nwana’s) north of the half-section line in Sections 31 and 32.

By 1931, California water law had undergone significant changes from its initial beginnings. In 1913, the Legislature had passed legislation creating the California Water Commission (Stat. 1913, Ch. 586, p. 1012; effective December 19, 1914). The new law declared that a permit issued by the Commission must precede all appropriations of water after the law’s effective date. *Del Rosa* does not refer to a permit, or more importantly, a lack thereof. Further, in 1928, Cal. Const. Art. X, Sec. 2 was adopted, declaring “the general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of the use of water be prevented....” This amendment to the California Constitution has been construed as “an effort ‘on the part of the state, in the interest of the people of the state, to conserve our waters’ without interference with the beneficial uses to which such water may be put by the owners of water rights, including riparian owners.” In re: *Waters of Long Valley Creek Stream System*, 25 Cal. 3d 339, 353 (1979) (quoting *Gin S. Chow v. City of Santa Barbara*, 217 Cal. 673, 700 (1933)).

In light of the establishment of the Water Commission in 1914, and the adoption of Art. X, Sec. 2 of the Constitution, Judge Leonard would have understood the significance of determining the “ownership” of the water rights of ASC, CCWC and co-defendants in the waters of East Twin Creek. Having these rights pursuant to a judicial adjudication is the single best evidence of the existence of Nwana’s rights, as successor to both ASC’s and CCWC’s rights to the waters in East Twin Creek and its tributaries. See *Pleasant Valley Canal Co. v. Borrer*, 61 Cal. App. 4th 742 (1998). No private party either before or since *Del Rosa* has sought to obtain a permit to appropriate water from Strawberry Creek or Canyon, and perhaps more importantly, no party with standing has sought to challenge the ruling.

Attachment 1

cents, issues and profits thereof.

WITNESS our hands this 5th day of March 1929.

Witness to signatures: -

A. B. Kirkland (SEAL)
Ruth M. Kirkland (SEAL)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN BERNARDINO)

On this 5th day of March in the year one thousand nine hundred and twenty-nine, before me, EVERETT BEZISH, a Notary Public in and for the said County and State, residing therein, duly commissioned and sworn, personally appeared A. B. KIRKLAND AND RUTH M. KIRKLAND, his wife known to me to be the persons whose names are subscribed to the within instrument and they acknowledged to me that they executed the same.

WITNESS my hand and official seal at said county.

Everett Bezish,

(NOTARIAL SEAL)

Notary Public in and for the County of San Bernardino,
State of California.

My Commission Expires Feb. 10, 1932.

No. 69. "Endorsed" Recorded at Request of Pioneer Title Insurance & Trust Co., Mar. 12, 1929, at 9 A.M. in Book 476, Page 174, OFFICIAL RECORDS, San Bernardino County, Calif. Fulton G. Ferand, County Recorder. By A. R. Schultz, Deputy. Fee \$1.10.

Compared

L. Hale

E.L. Glenn

o o o o

*For instrument affecting this record
See Book 474, Page 222, Official Records*

WARRANTY DEED.

KNOW ALL MEN BY THESE PRESENTS:

That for and in consideration of the sum of Ten Dollars (\$10.00) to it in hand paid, and of other good and valuable consideration, receipt of which is hereby acknowledged, ARROWHEAD SPRINGS CORPORATION, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having its principal place of business in and for the State of California in the City of Los Angeles, in said State, does hereby grant to CALIFORNIA CONSOLIDATED WATER COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, all that certain property situated in the County of San Bernardino, State of California, described as follows to-wit:

1. A perpetual right and easement to use, operate, maintain, repair and replace the reservoirs, pipe lines, tunnels and collecting basins hereinafter described, together with the easement to enter and go across other property of the grantor hereinafter described, in order to use, operate, maintain, repair and replace such facilities and the other facilities hereinafter mentioned. The reservoirs, pipe lines, tunnels and collecting basins above mentioned are described as follows:

Water Lot No. 1 as shown and delineated on Licensed Surveyor's Map "Showing Certain Pipe Lines and Easements Arrowhead Springs Corporation", recorded in Book 2, Record of Surveys, Pages 18 and 19.

Water Lot No. 2 as shown and delineated on said Licensed Surveyor's Map recorded in Book 2, Records of Surveys, Pages 18 and 19.

Also the existing reservoir site and tanks as shown on said Licensed Surveyor's Map.

Also the proposed reservoir site as shown on said Licensed Surveyor's Map.

Also a right of way 10 feet wide for pipe line the center line of which is designated as "Waterman Canyon Pipe Line" on said Licensed Surveyor's Map.

Also a right of way 10 feet wide for pipe line, the center line of which is designated as "Indian Springs Pipe Line" on said Licensed Surveyor's Map.

Also a right of way 40 feet wide for pipe line designated as "Proposed Pipe Line B", the

center line of which is center line of Pacific Electric Railway as shown on said Licensed Surveyor's Map.

Also a right of way 10 feet wide for pipe line the center line of which is designated as "Proposed Pipe Line 'A'" on said Licensed Surveyor's Map.

Also a perpetual easement to lay, construct, erect, use, operate, maintain, repair and replace necessary additional reservoirs, pipe lines, tunnels, collecting basins and similar facilities as may be hereafter needed by the grantee, its successors or assigns, in, on and across other property of the grantor, hereinafter described.

Also all pipe lines, pipe racks and loading facilities for the transportation of water from the existing collecting basins and tunnels of the grantor to Pacific Electric Railway, or elsewhere, and also all reservoirs and tanks of the grantor, now being used by it in the development and distribution of its water.

2. All subterranean waters in Waterman Canyon (also known as West Twin Creek) and in Strawberry and Cold Water Canyons (also known as East Twin Creek), belonging to the grantor, including all waters now being developed and produced by said grantor in said Canyons, together with such additional subterranean waters now belonging to the grantor as the grantee, its successors or assigns, may hereafter desire to develop, together with necessary rights of way for pipe lines to convey such water to the reservoirs of the grantee, its successors or assigns, and the right to go upon the premises of the grantor and erect necessary tunnels and collecting basins for the development of such water; excluding, however, all water of the grantor from surface streams and hot springs.

3. Also whatever rights and interests ARROWHEAD SPRINGS CORPORATION owns and possesses in water flowing from Indian Springs and in the tunnels located at and adjoining said Springs.

4. Also, in the event of emergency creating a shortage in the supply of water available to grantee, its successors or assigns, from the above sources of supply, the right and privilege on the part of the grantee, its successors or assigns, to take hot water from any of the springs or other sources of supply owned or controlled by the grantor in such amounts and at such times as will not interfere with or interrupt the hot water uses and service of the grantor.

SUBJECT to the lien of taxes for the last half of the fiscal year 1928-29.

TO HAVE AND TO HOLD unto the said grantee, its successors or assigns forever.

The grantor hereby covenants with the grantee, its successors or assigns, that the grantor will warrant to the grantee, its successors or assigns, all the said property against every person lawfully claiming the same.

The other property of the grantor hereinbefore mentioned is that certain real property situated in the County of San Bernardino, State of California, particularly described in the indenture dated as of July 1, 1925, from said Arrowhead Springs Corporation to the Pacific-Southwest Trust & Savings Bank and recorded August 22, 1925, in Book 14, page 1, Official Records of said County.

IN WITNESS WHEREOF, said ARROWHEAD SPRINGS CORPORATION has caused its corporate name and seal to be affixed hereto and this instrument to be executed by its respective officers, thereunto duly authorized, this 27th day of February 1929.

ARROWHEAD SPRINGS CORPORATION

(CORPORATE SEAL)

BY Chas. G. Anthony, Vice-President

BY C. M. Rice, Secretary

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.

On this 27th day of February 1929, before me, C. E. CULVER, a Notary Public in and for said County, residing therein, duly commissioned and sworn, personally appeared CHARLES G. ANTHONY, known to me to be the Vice-President and C. M. RICE, known to me to be the Secretary

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of ARROWHEAD SPRINGS CO. INC, the corporation that executed the within foregoing instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(NOTARIAL SEAL)
My Commission Expires June 24, 1930.

C. E. Culver,
Notary Public in and for the County of Los Angeles,
State of California.

No. 116. "Endorsed" Recorded at Request of Security Title Ins. & G'tee Co., Mar. 12, 1929, 11:01 A.M. in Book 476, Page 175, OFFICIAL RECORDS, San Bernardino County, Calif. Fulton C. Peraud, County Recorder. By Eva Bemis, Deputy. Fee \$1.60.

Compared

L. Hale

E.L. Glenn

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STATE CORPORATION DEPARTMENT OF THE STATE OF CALIFORNIA.

IN THE MATTER OF THE APPLICATION)
OF) AMENDED SUPPLEMENTAL PERMIT
CALIFORNIA CONSOLIDATED WATER) LA - 6109.
COMPANY, for a certificate authorizing)
it to sell its securities.)

THE ISSUANCE OF THIS CERTIFICATE IS PERMISSIVE ONLY AND DOES NOT CONSTITUTE A RECOMMENDATION OR ENDORSEMENT OF ANY SECURITIES OR OTHER MATTERS HEREIN CONTAINED.

The Supplemental Permit heretofore issued to CALIFORNIA CONSOLIDATED WATER COMPANY, a Delaware corporation, on February 25, 1929, is hereby amended to read as follows:

CALIFORNIA CONSOLIDATED WATER COMPANY, a Delaware corporation, is permitted to sell and issue to Pacific Public Service Company for cash, lawful money of the United States, so as to net applicant the full par or face value thereof, plus accrued interest to date of delivery and for the uses and purposes recited in its application, its FIRST MORTGAGE AND FIRST LIEN FIFTEEN YEAR SIX PER CENT GOLD BONDS, not exceeding in their aggregate par or face value \$1,500,000.00 of that certain issue authorized by it to be issued in and by proceedings of its board of directors and of its stockholders, as recited in the application.

This permit is issued upon each of the following conditions:

(a) That the payment of all of said bonds shall be secured by a mortgage or indenture of trust substantially in the form of the copy of such indenture filed with its application, upon all of that real and personal property therein described and referred to; and that said bonds shall be substantially in the form and tenor of the bond set forth in said indenture, and shall be executed, certified, and issued only in accordance with the conditions of said indenture, and as herein permitted.

(b) That, said indenture shall be first duly recorded so as to constitute a first lien or charge of record upon all of the real property described therein, and upon all of the personal property described therein, situate in Los Angeles, San Bernardino, San Diego and Ventura Counties, subject only to the lien of taxes not delinquent, easements and rights of way of record, conditions, restrictions and reservations affecting the real property in the City of Los Angeles therein described, rights of way for roads or highways affecting the San Bernardino County property therein described, and lease to Arthur R. Peck and Carrie A. Peck, recorded in Book 262, Page 304, Official Records of San Bernardino County, California.

(c) That none of the said bonds herein authorized to be sold and issued, shall be issued unless and until applicant shall have furnished the Trustee with a true and correct copy of this permit.

Attachment 2

IN WITNESS WHEREOF, the said parties of the first part have hereunto set their hand and seal the day and year first above written.

Walter E. Holt
Margaret E. Holt

STATE OF CALIFORNIA)
) ss
COUNTY OF SAN BERNARDINO)

On this 19th day of July, A.D., 1930, before me, M. E. Grane, a Notary Public in and for said County and State, personally appeared Walter E. Holt and Margaret E. Holt, his wife, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(NOTARIAL SEAL)

M. E. Grane
Notary Public in and for said County and State

No. 3, "Endorsed" Recorded at request of SECURITY TITLE INS. & GUARANTEE CO. Aug. 21, 1930, at 9 A.M. in book 648, page 121, Official Records, San Bernardino County, Calif. Fulton G. Ferand, County Recorder, by Eva Bemis, Deputy. Fee \$1.00.

Compared
A. Larmore M. Smith

o o o o

THIS AGREEMENT made and entered into this 6th day of August, 1930, by and between ARROWHEAD SPRINGS CORPORATION, a corporation organized and existing under and by virtue of the laws of the State of Delaware duly qualified to do business in the State of California (hereinafter called "Arrowhead"), and CALIFORNIA CONSOLIDATED WATER COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, duly qualified to do business in the State of California (hereinafter called "Consolidated"),

WITNESSETH: THAT, WHEREAS, on the 4th day of December, 1928, Charles G. Anthony entered into a certain agreement with California Consumers Company, a Delaware corporation, relative to the purchase by California Consumers Company from Arrowhead of certain real estate, personal property, water and water rights of Arrowhead, all as more particularly described in said agreement and in certain exhibits and schedules attached thereto and made a part thereof; and

WHEREAS, on the said 4th day of December, 1928, the said Charles G. Anthony and California Consumers Company entered into a certain agreement amending the agreement as above described, which latter agreement was entitled "Amendatory Contract", and, among other things, amended paragraph eleventh of said contract first above described; and

WHEREAS, subsequent to the said 4th day of December, 1928, the said contract so entered into by and between Charles G. Anthony and California Consumers Company was fully approved and ratified by Arrowhead, as if the same had been originally entered into by the duly authorized officers of Arrowhead and was fully approved by stockholders of Arrowhead; and

WHEREAS, on the 19th day of December, 1928, the said Charles G. Anthony, California Consumers Company and Arrowhead entered into a contract entitled "Second Amendatory Contract", further amending said contract of December 4, 1928, as amended by the amendatory contract; and

WHEREAS, on the 25th day of February, 1929, Arrowhead and Consolidated entered into an agreement relative to the carrying out of said agreements aforesaid, and amending additional

covenants and agreements thereto; and

WHEREAS, all right and interest of California Consumers Company in and to said contract, said amending contract and said second amending contract were, subsequent to the execution thereof, transferred by California Consumers Company to Consolidated; and

WHEREAS, subsequently Arrowhead made, executed and delivered to Consolidated certain bills of sale, assignments and other instruments in consummation of the terms of said agreements and particularly a certain warranty deed, which deed was recorded on the 15th day of May, 1929 in Book 476, page 175, Official Records of San Bernardino County, California, which warranty deed granted to Consolidated, among other things, certain easements and water rights belonging to Arrowhead situate in San Bernardino County, California; and

WHEREAS, since the execution and delivery of said instruments and warranty deed a controversy has arisen between the parties hereto as to the character and amount of water to which Consolidated is entitled under the terms of said contracts and said deed, and as to the character and amount of water which Arrowhead has retained under said contracts and deed, and during such controversy each of the parties hereto has made such examination of the said premises of Arrowhead and contiguous properties with reference to the amount and flow of water, both surface and sub-surface, thereon and thereunder, as to satisfy it in the execution of this agreement; and

WHEREAS, the parties hereto now desire to enter into an agreement for the purpose of completely compromising and settling all disputes, controversies and matters of every kind and nature as between the parties relative to the amount of water to be received by Consolidated and the amount of water to be retained by Arrowhead,

NOW, THEREFORE, for the purpose of fully compromising and settling all of said questions of every kind or nature, and for and in consideration of the premises and of the covenants and agreements herein contained, the parties hereto do agree as follows:

First: Consolidated agrees that it will, as soon as practicable after the execution of this agreement, and at its own cost and expense, construct and build a pipe line at least three inches outside diameter from the intake of the present pipe line of Arrowhead in Strawberry Canyon, constructed in 1929, to the springs located in upper Strawberry Canyon, twelve thousand three hundred (12,300) feet, more or less, north of the present pipe line intake of Arrowhead in Strawberry Canyon, and also that it will construct a pipe line of at least three inches outside diameter from the end of said pipe line in Strawberry Canyon belonging to Arrowhead one hundred (100) feet north of the tunnel in Cold Water Canyon to a point ten (10) feet north of the existing storage reservoir, having dimensions of 50' x 100', belonging to Arrowhead, back of the existing hotel building of Arrowhead, and also that it will construct a pipe line from the said reservoir to storage tanks and loading depot owned and operated by Consolidated west of Hot Water Canyon.

Second: Upon the completion of said pipe line by Consolidated, it may thereafter, without interference from Arrowhead, conduct all water developed by it in Strawberry Canyon through the pipe line so constructed by it, and also through the present pipe line constructed in 1929 by Arrowhead, which latter pipe line consists of six inch, four inch and three inch outside diameter steel pipe, and Arrowhead hereby grants Consolidated an easement to use for the purpose aforesaid Arrowhead's said pipe line and any line, whatever the size thereof, constructed by way of replacement thereof or substitution therefor. Of the water so developed and conveyed through said pipe line, Consolidated shall be entitled to one-half thereof, and Arrowhead shall be entitled to one-half, and the point of delivery of that portion of said water to which Arrowhead is entitled shall be the point in said pipe line ten (10) feet north of the said rectangular reservoir having a dimension of 50' x 100', back of the hotel building of Arrowhead. The method of measurement of said water, so that both Consolidated and Arrowhead shall receive their proper proportioned part thereof, shall be agreed upon by and

between an engineer designated by Arrowhead and an engineer designated by Consolidated. If the two engineers so designated shall fail to agree, then they shall designate a third engineer who shall be impartial and the decision of any two of the three engineers thus designated shall be binding upon the parties hereto as to the method of measurement of said water.

Arrowhead hereby grants to Consolidated (without any warranty whatsoever, except the warranty that Arrowhead has not conveyed or transferred to any other person the same right, or any right, title or interest therein) the sole and exclusive right to develop water from any and all sources whatever, whether surface, subterranean, seepage or otherwise, in Strawberry Canyon, and whether within or without the real properties now owned by Arrowhead, and hereby grants to Consolidated (without any warranty whatsoever, except the warranty that Arrowhead has not conveyed or transferred to any other person the same right, or any right, title or interest therein) one-half of all water developed from any and all sources, whatever in Strawberry Canyon, reserving to itself one-half of all such water.

Third: The pipe line above referred to, that is to say, that portion thereof constructed by Consolidated and that portion thereof constructed in 1929 by Arrowhead and now belonging to it, shall continue to be maintained at all times hereafter by Consolidated, at its own cost and expense, but Consolidated shall not be required to replace the whole, or any portion, of the said pipe line constructed by Arrowhead in 1929 and above referred to. Consolidated shall make all replacements required in that portion of said pipe line constructed or to be constructed by it, and Arrowhead shall make all replacements required in that portion of said line constructed by it. The officers, agents and representatives of each of said parties shall at all times have the right to inspect all springs, pipe lines, structures and measuring devices without interference from the other party.

Fourth: If at any time Consolidated is not using, selling, distributing or storing all of the one-half of the water flowing through said pipe line to which it is entitled hereunder, Arrowhead shall have the right to use for domestic purposes, human consumption, irrigation purposes or such other beneficial use upon its property as it may deem suitable, that portion of said one-half of such water not used, sold, distributed or stored by Consolidated, and whenever the storage facilities of Consolidated are full and can receive no more water without overflow, then Arrowhead shall be conclusively deemed to be entitled to the use, for the purpose aforesaid, of that portion of the water in said pipe line to which Consolidated is entitled hereunder but which Consolidated is not using, selling, distributing or storing, until the storage facilities of Consolidated can receive such water. If at any time Arrowhead is not using for domestic purposes, human consumption, irrigation purposes or such other beneficial use upon its property as it may deem suitable, all of the one-half of the water flowing through said pipe line to which it is entitled hereunder, Consolidated shall have the right to use, sell, distribute and store the portion thereof not used by Arrowhead. Consolidated agrees that it shall not be deemed to be using, selling or distributing water, within the meaning of this Paragraph Fourth or of Paragraph Sixth below, which is used for irrigation purposes outside of the watershed in which such water is obtained or which is used for irrigation purposes within such watershed upon real property not owned by Consolidated at the time of such use.

Fifth: In consideration of the purchase, Consolidated does hereby wholly release, surrender and quitclaim unto Arrowhead any right whatsoever which it may have obtained by virtue of said contracts and/or said warranty deed, or otherwise, to any surface or sub-surface water existing in Cold Water Canyon within or outside of the boundaries of the real estate owned by Arrowhead.

Sixth: Consolidated agrees that Arrowhead shall have the right to use for domestic purposes, human consumption, irrigation purposes or such other beneficial use upon its property as it may deem suitable, that portion of the water developed and stored by Consolidated

in Waterman Canyon not used, sold, distributed or stored by Consolidated, and whenever the storage facilities of Consolidated are full and can receive no more water without overflow, then Arrowhead shall be conclusively deemed to be entitled to the use, for the purposes aforesaid, of that portion of said water which Consolidated is not using, selling, distributing or storing, until the storage facilities of Consolidated can receive such water.

Seventh: Arrowhead and Consolidated agree that their respective engineers shall as early as practicable determine the exact descriptions for perpetual easements in favor of Consolidated in respect of additional reservoirs, pipe lines, tunnels, collecting basins and similar facilities as may be hereafter needed by Consolidated, its successors or assigns, in so far as it may be feasible to determine such descriptions at this time. When such descriptions shall have been determined, Arrowhead agrees to grant to Consolidated perpetual easements in respect thereof, and to grant such additional perpetual easements, not limited by specific description, as may be reasonable in order to assure to Consolidated, its successors and assigns, the right to develop, collect, store and distribute water in accordance with the warranty deed, as modified by this agreement; and thereupon Consolidated agree to quitclaim to Arrowhead the perpetual easement granted to Consolidated in said warranty deed in the following words:

"Also a perpetual easement to lay, construct, erect, use, operate, maintain, repair and replace necessary additional reservoirs, pipe lines, tunnels, collecting basins and similar facilities as may be hereafter needed by the grantee, its successors or assigns, in, on and across other property of the grantor, hereinafter described."

reserving and excepting, however, the easements to be granted by Arrowhead to Consolidated as provided in this paragraph Seventh.

Eighth: It is understood and agreed that notwithstanding any expression in said contracts and/or deed to the contrary, Consolidated shall not have the right to use any hot water arising on the property owned by Arrowhead that would interfere in any manner with the use of said water by Arrowhead, whether said water at the time of such use by Arrowhead is hot or cold, and Consolidated does hereby release and quitclaim unto Arrowhead any right to the use of hot water, except as aforesaid, which it may have obtained by virtue of any expression in said contracts and/or warranty deed.

Ninth: Notwithstanding any expression in said warranty deed, Consolidated shall not be entitled to any water flowing from Indian Springs and/or from the tunnels located at and adjoining said springs, except such surplus of said water as may exist after Arrowhead has made use of the same for all drinking and culinary purposes in and about its hotel, bungalows and out-buildings, and Consolidated does hereby release and quitclaim unto Arrowhead any right to the use of said water from Indian Springs and/or tunnels adjacent thereto, which it may have obtained by virtue of said contracts and/or warranty deed, except the right to the surplus above described. Consolidated hereby quitclaims to Arrowhead a perpetual easement to use, operate, maintain, repair and replace the Indian Springs pipe line of Consolidated, and Arrowhead agrees to maintain said pipe line and replace the same in whole or in part when and as often as it or any part thereof becomes worn out.

Tenth: In consideration of the foregoing and of all the contracts and warranty deed described in the recitals of this agreement, it is hereby expressly covenanted and agreed by and between the parties to this agreement that this final adjustment and modification of the said contracts and warranty deed shall operate as and be the final adjustment of all obligations and liabilities in respect of water rights in anywise arising out of any or all previous negotiations, liabilities and agreements between the parties hereto, or any of their respective predecessors in interest, officers and/or agents, and each of the parties hereto does hereby release and discharge the other of and from any and all causes of action which have arisen between the parties hereto in respect of water rights, or on account of which either of the parties hereto may be liable to the other in respect of water rights, and this final agreement

shall and does entirely absolve each of the parties hereto from any suit or claim to be made or asserted by either of the parties against the other in respect of water rights, except for matters hereafter arising based on this agreement or on said warranty deed as modified hereby. Except as modified hereby, however, said warranty deed and each and all of the agreements, terms and provisions thereof, shall be and remain in full force and effect.

IN WITNESS WHEREOF, the said parties have caused this instrument to be executed by their respective officers, thereto duly authorized, and their respective corporate seals to be hereunto affixed the day and year first above written.

(CORPORATE SEAL)

ARROWHEAD SPRINGS CORPORATION
By G. E. Rice, Vice President
And J. C. Macfarland, Assistant Secy.

(CORPORATE SEAL)

CALIFORNIA CONSOLIDATED WATER COMPANY
By T. W. Brown, Vice Pres.
And C. A. Burns, Asst. Sec'y.

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss

On this 6th day of August, 1930, before me, Mary S. Alexander, a notary public in and for the said county and state, residing therein, duly commissioned and sworn, personally appeared G. E. Rice, known to me to be the Vice president and J. C. Macfarland known to me to be the Assistant secretary of ARROWHEAD SPRINGS CORPORATION, one of the corporations that executed the foregoing agreement known to me to be the persons who executed the foregoing agreement on behalf of such corporation and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(NOTARIAL SEAL)

Mary S. Alexander
Notary Public in and for the County of
Los Angeles, State of California

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss

On this 6th day of Aug. 1930, before me, Olive H. Peters, a notary public in and for the said county and state, residing therein, duly commissioned and sworn, personally appeared T. W. Brown known to me to be the Vice president and C. A. Burns, known to me to be the Asst. secretary of CALIFORNIA CONSOLIDATED WATER COMPANY, one of the corporations that executed the foregoing agreement, known to me to be the persons who executed the foregoing agreement on behalf of such corporation and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(NOTARIAL SEAL)

Olive H. Peters
Notary Public in and for the County of
Los Angeles, State of California

Re. 92, "Entered" Recorded at request of ATTORNEY, Aug. 21, 1930, at 11:30 A.M. in book 646, page 122, Official Records, San Bernardino County, Calif. Fulton S. Farnham, County Recorder, by Eva Davis, Deputy. Fee \$3.30.

Compared
A. Larrore K. Smith

.....

Attachment 3

GRANT DEED

GARRIE THOMAS, a widow, in consideration of Ten Dollars, to her in hand paid, the receipt of which is hereby acknowledged, does hereby GRANT TO Ethel Thomas, a single woman, all that real property in the County of San Bernardino, State of California, described as: The South half of Lot 185, in Baldwin Lake Tract No. 1724, as per plat of said Tract of record in the office of the County Recorder of said County in Book 25 of Maps, at page 71 thereof.

SUBJECT TO taxes, assessments, conditions, restrictions, reservations, easements, rights and rights of way of record.

TO HAVE AND TO HOLD to the said grantee, her heirs or assigns forever.

WITNESS my hand this 16th day of October, 1934.

Consideration less than \$100.

Garr.e Thomas

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } SS

On this 16th day of October, 1934, before me, the undersigned, a Notary Public in and for said County, personally appeared Garrie Thomas, known to me to be the person whose name is subscribed to the within instrument, and acknowledged that she executed the same.

WITNESS my hand and official seal.

(NOTARIAL SEAL)

Vance C. Kibbe

Notary Public in and for said County and State

No. 55. "Endorsed." Recorded at Request of Grantee, Dec 3 1934 at 11:12 A. M. in Book 1016, Page 303, Official Records, San Bernardino County, Calif. Fulton G. Ferand, County Recorder, By A. R. Schultz, Deputy. Fee \$1.00.

Compared

F. Cooley

E. Quinn

o o o o o

THIS AGREEMENT made and entered into this 26th day of September, 1931, by and between ARROWHEAD SPRINGS CORPORATION, LTD., (formerly Arrowhead Springs Corporation), a corporation organized and existing under and by virtue of the laws of the State of Delaware, duly qualified to do business in the State of California, (hereinafter called "Arrowhead") and CALIFORNIA CONSOLIDATED WATER COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Delaware, duly qualified to do business in the State of California, (hereinafter called "Consolidated"),

WITNESSETH:

WHEREAS, on the 6th day of August, 1930, the parties hereto entered into a certain agreement, which agreement was thereafter recorded in the office of the County Recorder of San Bernardino County, California, in Book 648, at page 122 of Official Records of said County; and

WHEREAS, the parties hereto have determined to enter into a new agreement, whereby each will acquire certain rights and will agree to perform certain obligations distinct and different from the rights and obligations existing under or on account of said agreement of August 6, 1930, (which agreement, for convenience, will be hereinafter referred to as the "principal agreement").

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements herein contained, the parties hereto do agree as follows:

First: Consolidated agrees that it will forthwith, upon the execution of this agreement, and at its own cost and expense, develop to the fullest reasonable extent all springs,

seepages and other sources of water, if reasonably available, existing in Strawberry Canyon and all lateral canyons opening into Strawberry Canyon, lying north of the northerly line of the south half of Section 31 and of Section 32, Township 2 North, Range 3 West, S.B.S. & M., and produce and continue to produce from said sources of water sufficient water to fill the pipe line built by Consolidated, under and in accordance with the terms of said principal agreement, in ordinary seasons of dry weather.

Second: Consolidated shall hereafter at all times conduct all water developed and saved by it in Strawberry Canyon, and in the lateral canyons northerly of said line established in paragraph First hereof, through the said pipe line, and agree that all of the water so developed, saved and produced by it from said sources of supply shall be conducted through said pipe line, and not otherwise, to the point of delivery hereinafter referred to. Of all such water so developed and saved and conveyed through said pipe line, Consolidated shall be entitled to eighty per cent (80%) of the constant flow thereof and Arrowhead shall be entitled, without cost, to twenty per cent (20%) of the constant flow thereof. The point of delivery of said 20% of said water to which Arrowhead is entitled (which is the point of delivery referred to hereinabove in this paragraph) shall be a point in the aforesaid pipe line ten (10) feet north of the rectangular reservoir having dimensions of 50 x 100 feet back of the hotel building of Arrowhead. The method of measurement of said water, so that both Consolidated and Arrowhead shall receive their proportionate part thereof, as hereinabove set out, shall be agreed upon by and between an engineer designated by Arrowhead and an engineer designated by Consolidated. If the two engineers so designated shall fail to agree, then they shall designate a third engineer, who shall be impartial, and the decision of any two of the three engineers thus designated shall be binding upon the parties hereto as to the method of measurement of said water.

Third: Arrowhead grants to Consolidated any and all right, title or interest which Arrowhead now has to develop water from any and all sources whatever, whether surface, subterranean, seepage, or otherwise, in Strawberry Canyon and the lateral canyons northerly of the said northerly line of the said South half of said Sections 31 and 32 above described.

Arrowhead also grants to Consolidated all right, title or interest which it now has or heretofore had in or to the title to, or ownership of, any and all water that Consolidated has heretofore or may hereafter develop from any and all sources whatsoever in Strawberry Canyon and lateral canyons northerly of said northerly line of the south half of said Sections 31 and 32; subject, however, to the right of Arrowhead to have delivered to it by Consolidated at the point of delivery aforesaid, twenty per cent (20%) of all such water developed and saved by Consolidated.

The aforesaid grants are without warranty except the warranty that Arrowhead has not conveyed or transferred to any other person the same right, or any right, title or interest therein.

If, within three (3) years from the date of this agreement, Consolidated does not develop a flow of water in Strawberry Canyon and/or canyons lateral to it, southerly of said line above established, additional to the flow of water developed by Consolidated northerly of said established line, then Arrowhead shall be exclusively entitled, so far as Consolidated is concerned, to develop and produce such additional flow of water at any and all places southerly of said established line, provided that such development and production of water shall not affect or impair the right of Consolidated to develop and produce water northerly of said established line. In the event of the development of any water southerly of said established line, by either party hereto, and northerly of the

south section lines of said Sections 31 and 32, Arrowhead and Consolidated shall each be entitled to an equal one-half part thereof. In the event of the development by Arrowhead of any water southerly of the south section lines of Sections 31 and 32, Arrowhead shall be entitled to the whole thereof, so far as Consolidated is concerned.

Fourth: It is understood and agreed that all of the covenants, terms and conditions of paragraph Fourth of said principal agreement are hereby agreed to and reaffirmed, except that the same shall be deemed to have been amended so as to substitute the words "eighty per cent (80%) of the water flowing through said pipe line" wherever reference is made to the water to which Consolidated is entitled, in lieu of the words "one-half of the water flowing through said pipe line," and except that the same shall be deemed to have been amended so as to substitute the words "twenty per cent (20%) of the water flowing through said pipe line" wherever reference is made to the water to which Arrowhead is entitled, in lieu of the words "one-half of the water flowing through said pipe line."

Fifth: Consolidated agrees that upon the execution of this agreement it will pay to Arrowhead the sum of fifteen thousand dollars (\$15,000.00) towards the development by Arrowhead of water in Cold Water Canyon. Arrowhead agrees that said payment of \$15,000.00 was induced by its promise, which it hereby obligates itself to perform, to actually commence the development of water in said Cold Water Canyon within one (1) year from the date hereof, and at its own cost (not exceeding said sum of \$15,000.00) to diligently prosecute such work to completion; such work to be done in such manner and to involve the construction of such pipe lines, reservoirs and other facilities as Arrowhead may deem advisable.

Sixth: Except as amended hereby, said principal agreement shall not be affected hereby and each and every sentence, clause or paragraph of said principal agreement not amended hereby, and with which this agreement is not inconsistent, and particularly paragraphs Third, Fifth, Sixth, Seventh and Ninth of said principal agreement, are hereby reaffirmed, and the parties hereto agree that said paragraphs shall not in anywise be affected by anything contained in this agreement.

Seventh: Arrowhead does hereby grant, without warranty, to Consolidated the right to use one miner's inch constant flow of the water arising from Penyugal Springs, or from other springs in the vicinity thereof, but not for sale as mineral medicinal water, and does also hereby grant to Consolidated the necessary easement for a pipe line to run from said Penyugal Springs or vicinity to the reservoirs of Consolidated, the exact course and description of such easement to be hereafter agreed upon by the parties hereto. Consolidated does hereby agree that it shall not have any right to the hot water arising on the property of Arrowhead Springs Corporation, Ltd. other than the one miner's inch above described in this paragraph.

Eighth: WHEREAS, Consolidated has stated to Arrowhead that certain false and fraudulent representations were made by Arrowhead and/or by certain of its officers, agents and/or employes prior to and at the time of the purchase by Consolidated and/or California Consumers Company, its predecessor in interest, of the properties and business as set forth and described in that certain agreement of the 4th day of December, 1928, the Amending Contract of the same date, the Second Amending Contract of the 19th day of December, 1928, and the agreement of February 28, 1929, which agreements are recited in the principal agreement of August 6, 1930, and that Consolidated and California Consumers Company, its predecessor, relied upon such false and fraudulent representations in the making of all of such agreements and in the purchase of said properties; and

WHEREAS, Arrowhead has denied that any of such false or fraudulent representations were so made by it, or any of its officers, employes or agents, and the parties hereto desire to fully release and discharge any and all claims and causes of action arising on

account of any such alleged false or fraudulent representations,

NOW, THEREFORE, for and in consideration of the premises and of the covenants, terms and provisions of this agreement, the parties hereto do hereby fully and completely release and discharge each other of and from any and all causes of action, claims, demands or obligations arising out of or on account of any representations, false, fraudulent or otherwise, of any kind or nature, made or alleged to have been made by either party hereto, or any of their respective officers, agents or employees, in connection with or preliminary to, or otherwise affecting or having to do with, the transfer of the business and properties of Arrowhead to Consolidated or to California Consumers Company, a corporation, or in connection with the amount of water developed or to be developed upon the properties of Arrowhead or the amount of water sold by it, or the source of said water, or in connection with the execution of said principal agreement and/or this agreement, and do hereby release and discharge each other from any and all other obligations, causes of action, claims or demands of every kind or nature whatsoever arising out of, or on account of, or in any manner connected with, the sale by Arrowhead to Consolidated, or to California Consumers Company, of its water distribution business and certain water rights, as provided in said agreement of the 4th day of December, 1928, and subsequent agreements hereinbefore designated, except such as are contained in, or arise out of, or on account of the following:

(a) The warranty deed of February 27, 1929, recorded on the 12th day of May, 1929, in Book 476, Page 175 of Official Records of San Bernardino County, California, as amended by said principal agreement of August 6, 1930;

(b) The principal agreement of August 6, 1930, as amended by this agreement;

(c) The agreement dated January 2, 1931, executed by Arrowhead Springs Corporation and California Consolidated Water Company, entitled "Memorandum of Agreement," as amended by agreement of even date herewith.

(d) The agreement dated August 6, 1930, executed by Arrowhead Springs Corporation and California Consolidated Water Company, entitled "Special Distributors Agreement," as amended by agreement of even date herewith.

(e) This agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their respective officers, thereunto duly authorized, and their respective corporate seals to be hereto affixed, the day and year first above written.

(CORPORATE SEAL)

ARROWHEAD SPRINGS CORPORATION, LTD.

By C. M. Rice, Vice-President

And J. C. Macfarland, Assistant Secretary

CALIFORNIA CONSOLIDATED WATER COMPANY

By S. C. MacPherson, Exec. Vice President

And C. A. Werns, Asst. Secretary

(CORPORATE SEAL)

{ Prepared by _____
{ Attorney's Approval _____
{ Pillsbury, Madison & Sutro By _____
{ Other Attorneys _____
{ or Lawler Degan _____
{ Form previously approved by _____
{ Description approved J. Paul Jones _____
{ R. of W. Approval _____
{ Approved _____
{ Approved _____
{ Manager's Approval for Execution _____

STATE OF CALIFORNIA }
COUNTY OF LOS ANGELES } SS

On this 28th day of September, 1931, before me, Mary S. Alexander, a notary public in and for the said county and state, residing therein, duly commissioned and sworn, personally appeared C. M. Rice, known to me to be the Vice-President, and J. C. Macfarland, known to me to be the Assistant Secretary of ARROWHEAD SPRINGS CORPORATION, LTD., one of

the corporations that executed the foregoing agreement, known to me to be the persons who executed the foregoing agreement on behalf of such corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

(NOTARIAL SEAL) Mary S. Alexander
Notary Public in and for the County
of Los Angeles, State of California

No. 70. "Endorsed." Recorded at Request of G. M. Rice, Dec 3 1934 at 1101 P. M. in Book 1016, Page 303, Official Records, San Bernardino County, Calif. Fulton G. Ferand, County Recorder, By A. R. Schultz, Deputy. Fee \$3.80.

Compared
F. Cooley E. Quinn
o o o o o

NOTICE
NON-RESPONSIBILITY

TO ALL WHOM IT MAY CONCERN:

NOTICE is hereby given that I, H. H. EASTWOOD, am the owner of certain premises described as follows, to-wit: Lot 34, Block 50, Tract 2439, of _ recorded in Book 34, page 78 of Official Records of San Bernardino County, State of California; That I have obtained knowledge that building is in course of construction on said property; that ten days have not elapsed since I obtained this knowledge; and that I will not be responsible for the construction of said building, or for the material or labor used or to be used therein, or for any alteration or repair thereof, or for any work done upon said building, or any addition thereto, or which has been performed, furnished or used in any manner or way upon said land, or upon the building thereon, or addition thereto, or which may hereafter be performed, furnished, or used upon said land, or building, or addition thereto, or for the service of any architect.

THAT HAL WILSON and MORTENCE WILSON are the purchasers of said property under a contract of purchase.

THAT _ is the lessee of said property.

No. and Street _ H. H. Eastwood
STATE OF CALIFORNIA }
COUNTY OF SAN BERNARDINO } SS

H. H. Eastwood being duly sworn deposes and says: That the above and within notice is a true copy of a notice posted on lot 34, block 50, tract 2439, Records of San Bernardino County, California, on the third day of December, 1934 by H. H. Eastwood and tht the facts therein stated are true of his own knowledge.

H. H. Eastwood

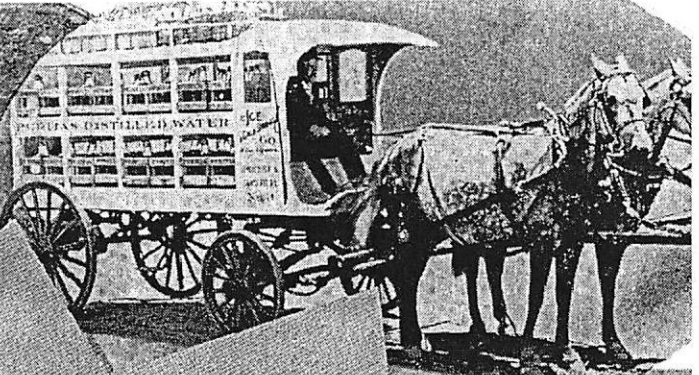
Subscribed and Sworn to before me this 3rd day of December, 1934.

(NOTARIAL SEAL) Mae A. C. Fanning
Notary Public in and for said County and State

STATE OF CALIFORNIA }
COUNTY OF SAN BERNARDINO } SS

On this third day of December, A. D., 1934, before me, Mae A. C. Fanning, a Notary Public in and for said County and State, personally appeared H. H. Eastwood known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same.

Attachment 4



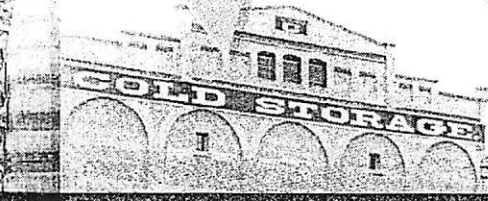
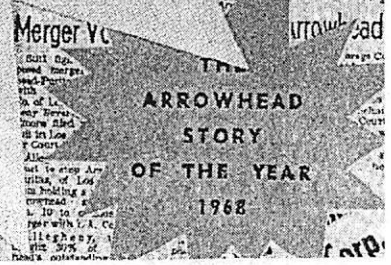
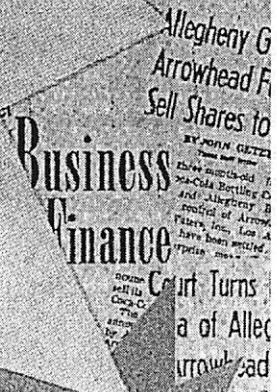
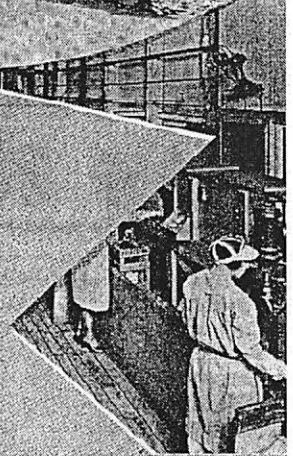
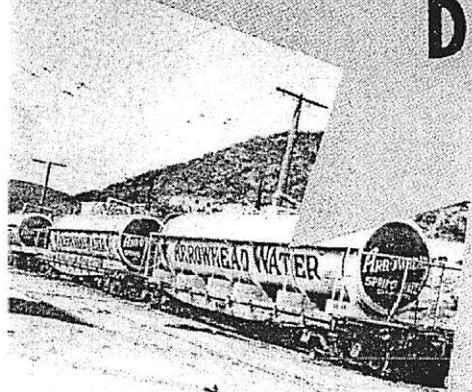
ARROWHEAD PURITAS WATERS

Arrowhead Puritas Waters is celebrating its Diamond Jubilee this year. For 75 continuous years our Company has offered bottled drinking water and related services to the people of Southern California... most certainly an impressive record in the annals of business and industry.

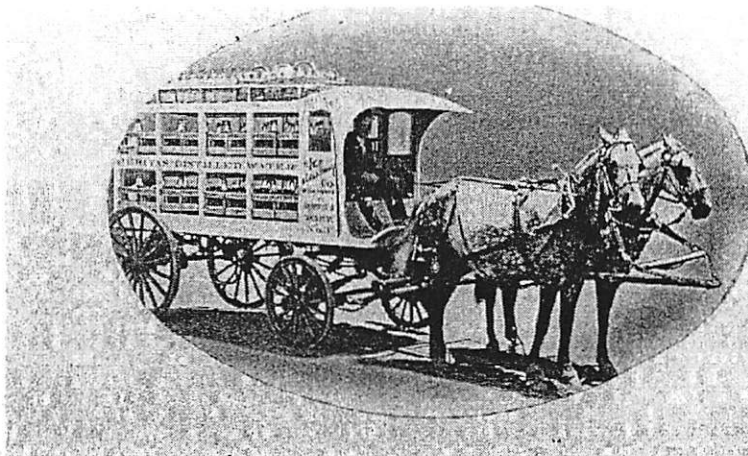
occurring 40 years ago and the last happening this year. Some of the principals' names are now legend; others have endured. However, by tracing the steps of ownership during these past 75 years, one can appreciate fully the growth and development of Arrowhead Puritas as it has evolved from a 19th Century "small business" to a multi-million-dollar complex in this final third of the 20th Century.

The history of the Company is documented by a series of acquisitions and mergers, the first

DIAMOND JUBILEE 1894 - 1969



ARROWHEAD LINES



1894—The Ice and Cold Storage Company of Los Angeles introduces bottled drinking water—Puritas Distilled—in modern, horse-drawn conveyances.

Early advertising . . . front page of the Orpheum Theater programs of the late 1800's features Puritas Sparkling Distilled Water. (Note price of admission to theatre in those days!)

PURITAS
SPARKLING DISTILLED WATER

❁❁
 PURE WATER and pure
 Ice in the household
 are just as essential to good
 health as pure air and
 pure food.
 The most prominent
 physicians in this city
 recommend our product.
 ❁❁

The Ice and Cold Storage Co.
 TEL. 228
MOSES & HELM N.Y.

The Orpheum
Programme
LOS ANGELES
THEATRE SOCIETY VAUDEVILLE THEATRE

GEORGE WALKER, Director General
 C. E. BRAY, Assistant Director
 CHAS. SCHIFF, Resident Manager
 PERFORMANCES EVERY EVENING, INCLUDING SUNDAY

Box Office 11c 15c Orchestra & Dress Circle, 50c Family Circle & Balcony, 25c
 Gallery, 10c 20c MATINEES: Wednesday, Saturday and Sunday.
 For seat post of the Street, 23 South Children 50c, not more.

PURE WATER
PURE ICE

In the Household are just as essential to good health as pure air and pure food.

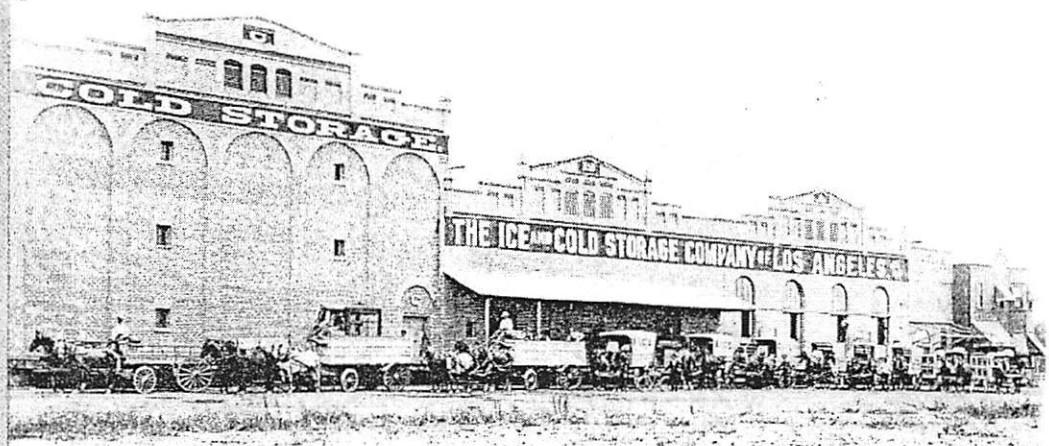
The most prominent Physicians in this city recommend our Product.

The Ice and Cold Storage Company
Phone 228, Main

PURITAS
SPARKLING DISTILLED WATER

ICE & COLD STORAGE CO.

The fleet! Ice wagons load up for day's deliveries in front of the early Eagle Rock headquarters.



Los Angeles Ice and Cold Storage Company

The bottled water industry in Southern California began with the Ice and Cold Storage Company of Los Angeles.

Just as today's yellow delivery trucks are a familiar sight on the streets of Southern California, so were the horse-drawn water wagons at the turn of the century, for it was in 1894 that Los Angelenos got their first taste of bottled drinking water. Puritas Distilled Water was produced from municipal water supplies in much the same fashion as it is today and sold in 5-gallon bottles to the residents of the City.

The first plant was located on the Arroyo near Eagle Rock and later was moved to more modern headquarters at Seventh Street and Santa Fe Avenue in Los Angeles.

In mid-1928, the company was sold to the California Consumers Company, which also had various ice cream, ice and cold storage operations.

Arrowhead Springs Corporation

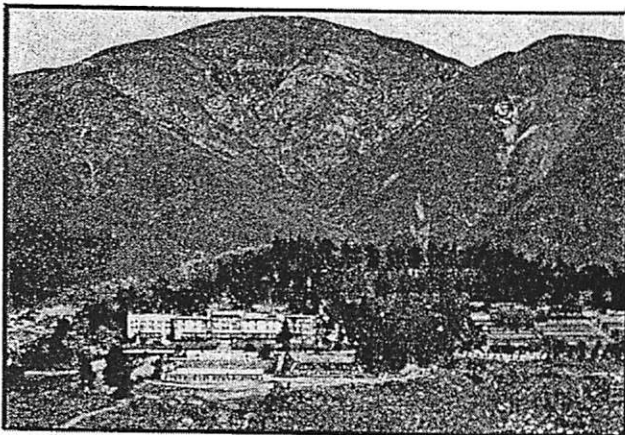
Puritas Distilled Water was unrivaled until 1905, when the Arrowhead Springs Corporation began selling spring water in Los Angeles. The water came from the San Bernardino Mountains, the name taken from the great natural arrowhead design on the mountain-side above Arrowhead Springs, a health spa noted for its mineral-rich hot springs.

The first bottling was done in the basement of the Hotel, where the water was packaged in pints, quarts and gallons. As its popularity increased, the water was bottled in 5-gallon units and shipped to customers via the Pacific Electric Railway.

Then in 1917 the company constructed a bottling plant in Los Angeles, and the September 23 issue of the *Los Angeles Times* heralded its opening:

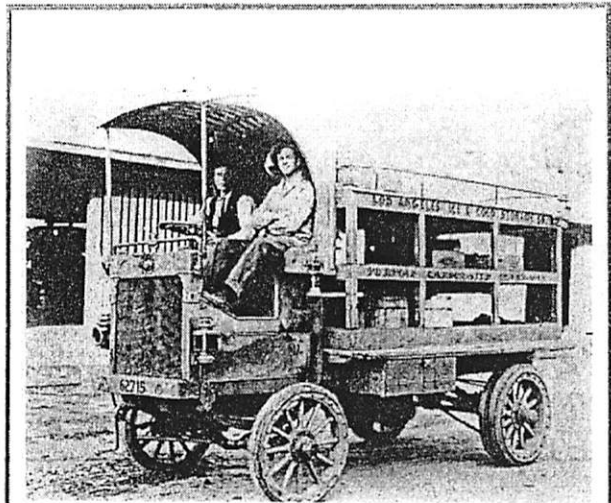
"One of the most important of the recent industrial acquisitions of Los Angeles is the new and modern bottling plant of the Arrowhead Springs Company at the corner of Washington Street and Compton Avenue. The plant is understood to have cost, with its elaborate equipment, over \$200,000 and is one of the largest establishments of its kind in the West."

A pipeline had been constructed at the springs, and water was transported to a reservoir above the Hotel and brought to the Los Angeles plant in glass-lined railroad tank cars, where it was bottled and distributed.

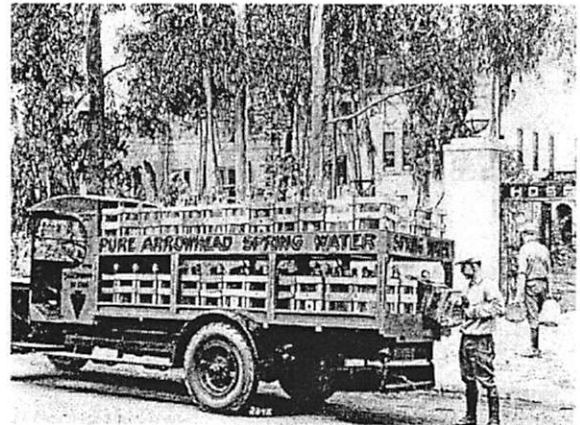


Early photo of the Arrowhead Springs Hotel and spa with famous arrowhead on mountainside.

OCTOBER, 1969

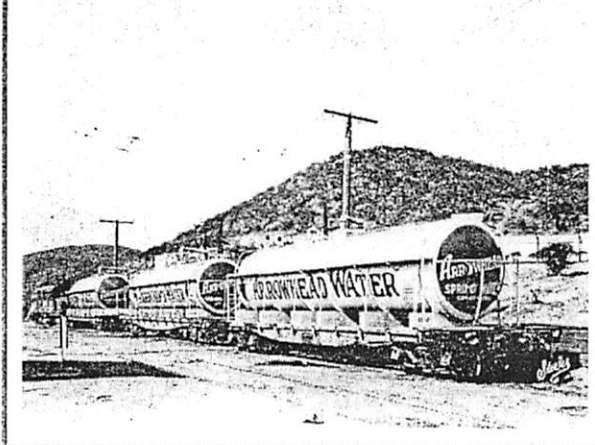


First Puritas bottled water truck is introduced in 1912. Note that old horsedrawn body has been placed on truck chassis.



Delivery Salesmen in natty new uniforms deliver Arrowhead Spring Water to Los Angelenos. (Photo circa 1917.)

At Arrowhead Springs siding, glasslined railroad tank cars "fill up" for journey to Los Angeles plant.



Merchants Ice and Cold Storage Company

Little data is available about the third member of this bottled water trio—Merchants Ice and Cold Storage Company. However, records at the Los Angeles County Court House indicate that the company was incorporated on January 6, 1906.

In addition to the ice and cold storage operations, there was also a bottled water division which sold a drinking water called "Liquid Steam."

\$5 Million Merger

All three companies operated independently until 1929. The March 3 edition of the Los Angeles Times announced the merger:

"A merger involving property worth \$5 million and

pany; T. W. Braun (now President of Braun & Co. public relations) was Vice President and General Manager; and another Vice President and Director was Dean Witter, founder of the stock brokerage company which bears his name.

All three divisions were to be administered by the California Consolidated Water Company which, 6 months earlier, had been organized as a subsidiary of the Pacific Public Service Company (which headquartered in San Francisco). In turn, Pacific Public Service Company was owned by the Standard Oil Company of California!

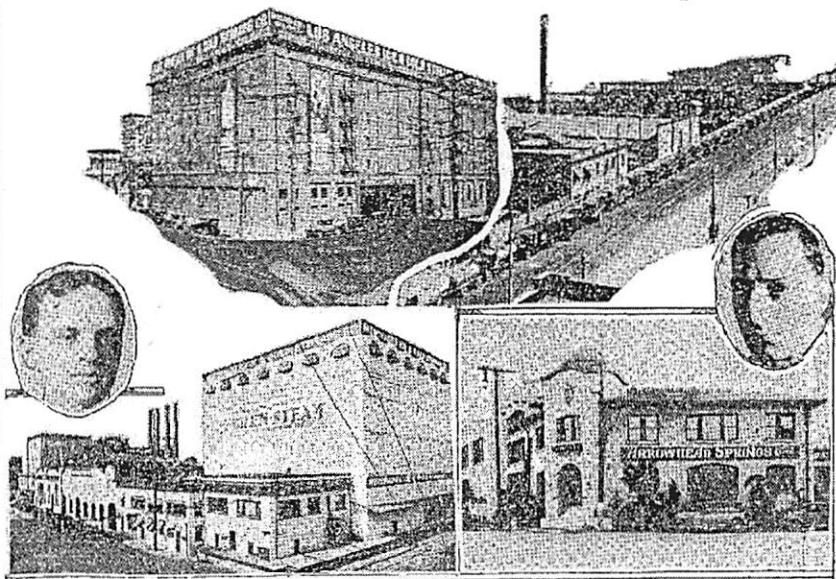
Consolidation & Expansion

A few months after the merger, the company announced

Los Angeles Times

SUNDAY MORNING, MARCH 3, 1929.

Consolidation Unites Bottled Water Companies



Three Involved in Deal

Three plants merged in the \$5,000,000 consolidation are shown above. At the top is the Puritas water division of the California Consumers Company. At the left is the bottled water division of the Merchants Ice and Cold Storage Company. The plant of the Arrowhead Springs Corporation is shown at the right. The insert at the left shows A. V. Wainright, president of the new company, and the right insert is T. W. Braun, vice-president.

MERGER JOINS *** THREE PLANTS

First Announcement Made of
\$5,000,000 Deal

Combined Units Will Serve
150,000 Homes

No Immediate Change in
Product Planned

BY ROSS GRANT

A merger involving property worth \$5,000,000 and uniting the three largest distributors of bottled water in Los Angeles and vicinity is today made known exclusively in The Times with the announcement of the consolidation of the Arrowhead Springs Corporation, Puritas Water division of the California Consumers Company and the bottled water division of the Merchants Ice and Cold Storage Company.

All of these properties will be administered under the direction of the California Consolidated Water Company, which was recently organized. The three companies produce water under the

uniting the three largest distributors of bottled water in Los Angeles and vicinity is today made known with the announcement of the consolidation of the Arrowhead Springs Corporation, Puritas Water Division of the California Consumers Corporation and the bottled water division of the Merchants Ice and Cold Storage Company.

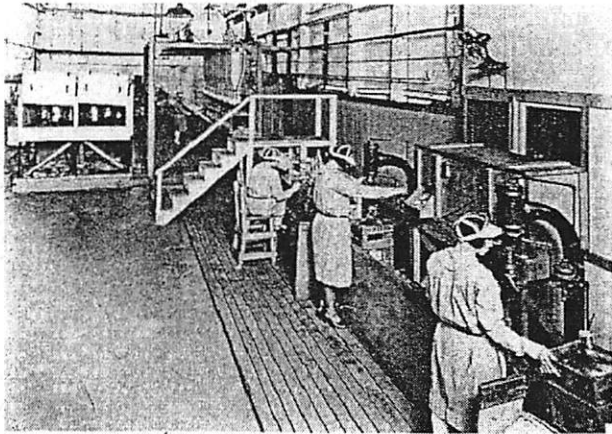
"No change is contemplated in the name of the products, nor is any immediate change expected in the distribution of the waters. The combined buying power resulting from the consolidation will permit more economic purchase of such items as glass bottles, coolers, stands and other equipment required in the distribution of the products."

A. V. Wainright was named President of the new com-

pany for the expansion of the Washington Boulevard facilities and the relocation of all of the bottled water holdings to that site. The August 23 Los Angeles Times reported this story:

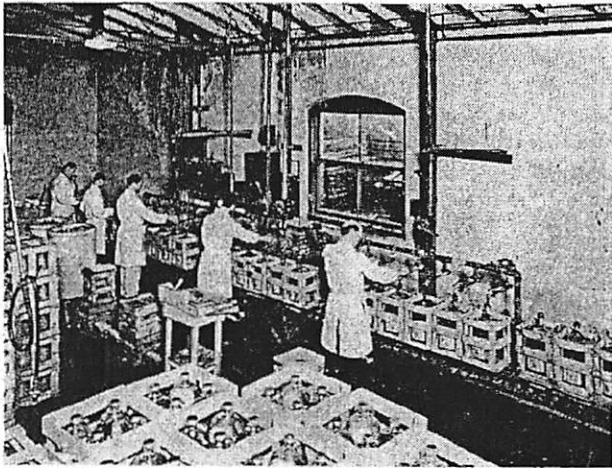
"Expending more than \$200,000 in a program of expansion that will almost triple its facilities, the California Consolidated Water Company . . . is constructing a group of buildings on new land acquired adjoining its present site at the corner of Washington and Compton.

The entire block, with the exception of one lot, has been purchased, covering 162,000 square feet. A reinforced concrete building is being constructed to accommodate new cooling tanks, a battery of stills, sterilizers and automatic filling machines."



At California Consumers plant, women "man" the assembly line for inspection and hand-capping of Puritas Water.

"Frozen Steam" drinking water is sold by Merchants Ice & Cold Storage Co. from its plant at 518 Seaton Street in Los Angeles.



In the late '20s employees at Arrowhead Springs Corporation manually fill each bottle of water as it rolls down the assembly line.

The present site of Arrowhead Puritas headquarters on Washington Boulevard looked like this 52 years ago when the building was constructed.



Oil & Water Do Mix!

For twenty-five years, from 1929 through 1953, the company was owned and operated by this Standard Oil/Pacific Public Service/California Consolidated Water complex.

The Standard Oil Bulletin dated August, 1930, cited these facts about the company to its employees:

"The California Consolidated Water Company is by far the largest bottled water concern in the world. The volume of its business is estimated to be about 5 times as great as that of any other company in Los Angeles.

"Both Arrowhead Spring Water and Puritas Distilled Water are available through local distributors from San Luis Obispo to the Mexican Border and into Arizona. Branch bottling plants are located in San Diego, Ventura, Santa Paula, Imperial Valley, Venice and at the Springs itself.

"Small wholesale shipments are made to many Eastern cities on order. The Fred Harvey system has Arrowhead Spring Water on sale throughout all of its dining rooms from Los Angeles to Kansas City. Interesting . . . are shipments in gallon bottles to the Shanghai-Hong Kong Hotel Company for use in its establishments in China and Japan."

1929 - MILESTONES - 1953

During this period, the following events took place which have had a lasting effect on the history of the Company:

1. In 1937 a program was adopted to purchase the routes and convert them to company operation. Prior to this time most of the 160 bottled water routes were owned by independent distributors to whom the Company "wholesaled" the water. This conversion took 20 years to complete, the last distributorship purchased in June, 1957.
2. On December 31, 1938, the name of the company was officially changed to Arrowhead and Puritas Waters Inc.
3. Three employees of Pacific Public Service Company in San Francisco were transferred to Arrowhead Puritas, each of them to play a major role in the future direction of the Company. In 1949, Everett Bruce was transferred to Los Angeles as Manager, Accounting Department. In 1947, Robert Suttle was hired as Marketing Analyst, assigned to San Francisco in 1950 and returned to APW in 1951. Hugo W. Druehl, Manager, Organization, Planning & Personnel at Pacific Public Service, came to Arrowhead Puritas in 1951 as General Manager of the Company.
4. Toward the close of 1951 and during a large part of 1952, the Company's organization structure was altered and strengthened. At that time, a Sales Department was created and staffed; the Company was divided into 5 Districts; District Managers were appointed and were delegated authority for local management and administration; and an Intensive Route Supervision Program was adopted.
5. In 1952, the Company introduced a new bottled water — Puritas Water Fortified With Fluorine, the first fluoridated bottled water to be marketed in Southern California.



Hugo Druehl



Robert Suttle



Everett Bruce

On assignment from Pacific Public Service were Hugo Druehl, Robert Suttle, Everett Bruce. In later years they were to serve respectively as President and Vice Presidents of Arrowhead Puritas Waters.

Rheem & Public Ownership

In 1953 the Pacific Public Service Company was dissolved and the assets of Arrowhead Puritas sold as an investment to a Trust Fund of the Rheem Manufacturing Company, one of the country's leading manufacturers of water heaters. Rheem owned the company for a little over a year when, on December 3, 1954, it disposed of most of its holdings through a public sale of securities.

The first stockholders' meeting was held a few months later, where directors were elected. The Board was comprised as follows: Chairman, Hugo W. Druehl; and Directors, Robert S. Suttle, Everett C. Bruce, Richard M. Link, and William E. Zander.

Thus a new era in ownership of Arrowhead Puritas Waters was inaugurated—public ownership via the purchase of shares of stock. For the next 15 years, from 1954 through 1968, the company was to be owned by approximately 2,000 shareholders from all over the United States and abroad.

"The Allegheny Affair"

In October, 1968, the Allegheny Beverage Company of Baltimore made a surprise tender offer in an effort to seize control of Arrowhead Puritas.

This attempt to wrest ownership of the company was vigorously opposed by management and stockholders alike. The Board of Directors proposed—and the shareholders concurred—that the company be merged with the Coca-Cola Bottling Company of Los Angeles. The action was ratified at the last Arrowhead Puritas meeting of shareholders in March, 1969, one week after ratification by Coca-Cola shareholders—and the rest is all current history.

Reflection

Thus from the horse-drawn wagonloads of Puritas Distilled Water which jugged over the cobblestone streets of early Los Angeles to the present-day mechanized fleet of trucks and motorized equipment which deliver water by small package, 5-gallon bottles and bulk loads, the Company has passed through many hands of ownership. However, at the same time, each owner has sought to preserve the original elements of quality and service which have enabled Arrowhead Puritas to expand and thrive in the marketplace for these many decades.

The intervening years have seen an expansion into related fields where we could fill a need, and the enlargement of our operations to produce items we had formerly purchased from others.

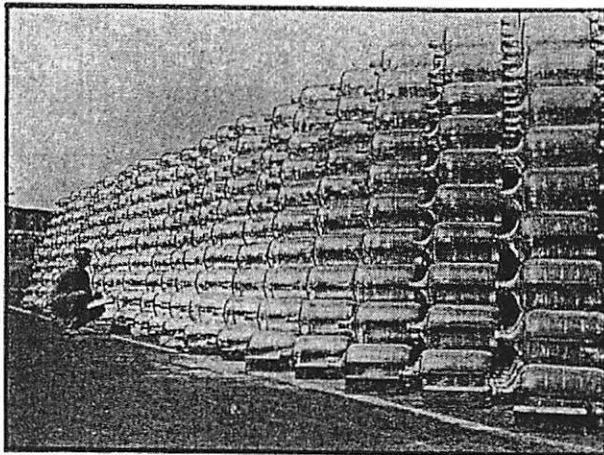
On the following pages are recapped the major events in the current history of Arrowhead Puritas Waters which cover the last 15 years from the date of its becoming a public corporation to the present time.

1954

- Three-way-tilt glass half-gallon is introduced receives Package Designers Council award and is displayed at International Package Design Exposition in New York.
- New branches open in Buena Park and Santa Ana.
- Old Oceanside branch is relocated in new, larger quarters in Vista.
- Truck and trailer fleet is modernized with addition of high-powered truck and trailer combinations.



1954 outdoor advertising features new half-gallon package.



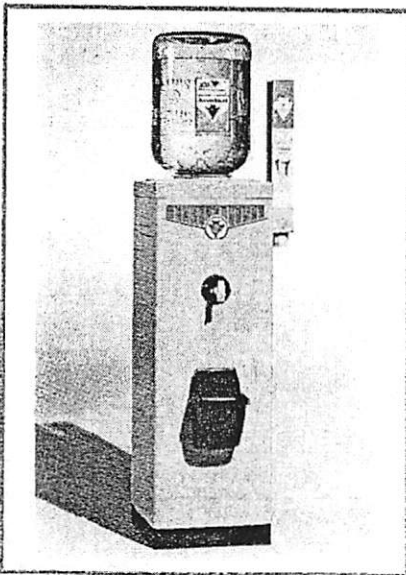
1956—McLaughlin Glass Company becomes Glass Products Division.

1955

- Company pays its first dividend under public ownership on February 15 . . . 12¢ per share.
- Half-gallon package is exhibited in Europe.
- Company purchases leased property on which Ventura plant and 5 Los Angeles County branches are located.

1956

- Assets and patent rights of McLaughlin Glass Company of Gardena are purchased and facility is renamed Glass Products Division.
- Distillation equipment installed at San Diego, eliminating rail shipment from Los Angeles and increasing production capacity.
- Contract distributorships in Needles and Blythe are sold.
- Santa Maria and San Luis Obispo operations are combined into new branch at Arroyo Grande.



1957

- Distillation equipment installed at Ventura.
- West Los Angeles branch is relocated on La Cienega Place.
- At the annual meeting, stockholders adopt a Retirement Plan for company employees.
- Avalon distributorship closed.
- Deluxe Aero Cooler is placed on the market.
- Wilmington distributorship operation assumed by Long Beach branch.

1958

- Polar Water Company of Los Angeles is acquired and absorbed into company operation.
- Glass Products Division develops line of Decorator Bottles.

1957—Deluxe Aero Cooler is marketed.

1959 - -

- New Branch is established at Lompoc.
- Arrowhead Electric Cooler is test-marketed in San Diego area.
- Packaged beverage ingredients are offered for sale.
- New, improved design route trucks are placed in service.
- Glass Products Division begins manufacturing 13-gallon carboys.



1960 - -

- Arrowhead Electric Cooler is marketed companywide.
- Railroad haul of Arrowhead Spring Water from San Bernardino is replaced by modern, diesel tank trucks.
- Electric Cooler Maintenance and Accounting Department are relocated in new facilities near Los Angeles headquarters.
- Colton branch and bottling plant constructed.

Puritas Vitamins are added in 1961.



Arrowhead Electric test-marketed in 1959.

1960 - -

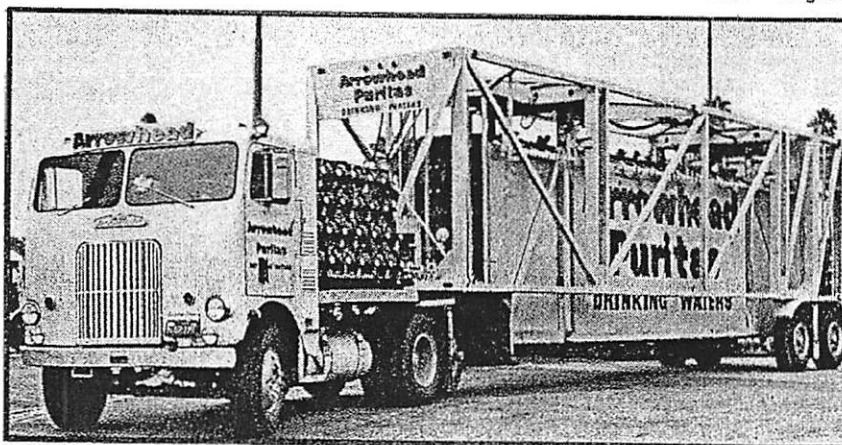
- Company acquires Del Manufacturing Company, which makes Arrowhead Electric Cooler and line of parts for aircraft and missile industries. Property is purchased adjacent to main plant, where Del is relocated into two divisions—Missile Products and Cooler Manufacturing. Manuel Delgado, former owner, becomes Vice President of APW.

1961 - -

- Puritas Vitamins are added to the product line.
- Santa Barbara branch is constructed in nearby Goleta.
- New springs are developed in San Bernardino Mountains to provide additional supply of Arrowhead Spring Water.



1961—"Bag-in-a-Box" is new look for small packages.



PAGE EIGHT

1961 - -

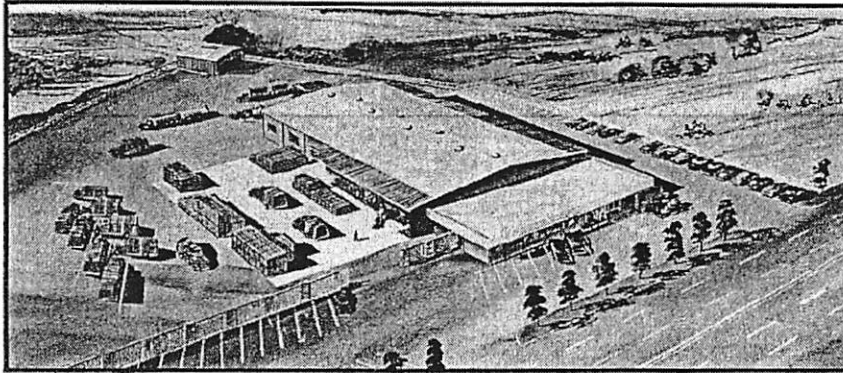
- Perfection Distilled Water of Los Angeles is acquired.
- One-way disposable half-gallon carton—"Bag-in-a-Box"—is introduced in supermarkets.
- "Straddle Trailer" type delivery is used to transport products to branches and small packages to supermarket warehouses.
- Engineering Department is organized.

Straddle Trailers join the fleet in same year.

OCTOBER, 1969

1962 - -

- Missile Products Division is sold.
- Continental Water Conditioning Company franchise is purchased.
- All small packages become "no deposit, no return." New one-way half-gallon glass bottle added to line.
- The Del Duo-Temp cooler, new low-cost hot and cold unit, is developed by Cooler Manufacturing Division.
- New plant is constructed in San Diego.



New San Diego plant opens in 1962.



Del Duo-Temp is introduced in 1962.



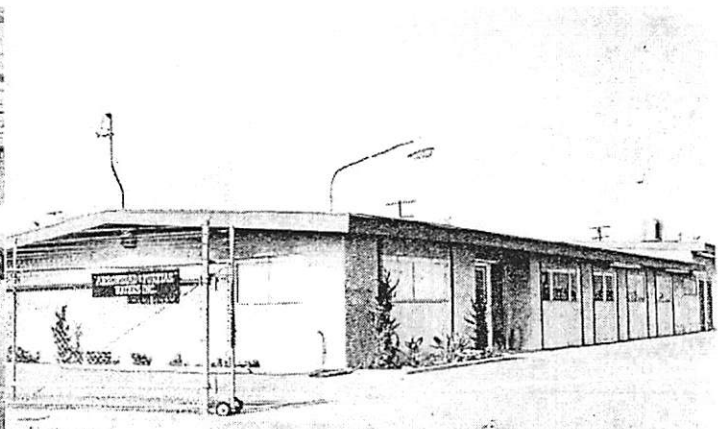
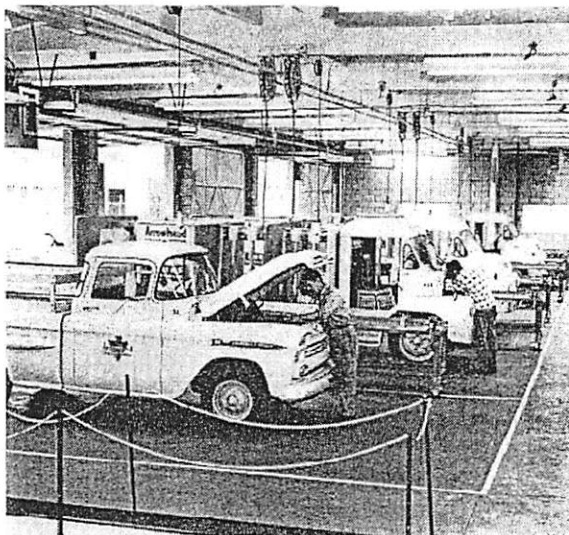
... Twin-Temp debuts in 1963.

1963 - -

- Ventura plant is remodeled and expanded.
- The Twin-Temp Cooler is developed by Cooler Manufacturing Division. CMD also begins making Tilters for company use.
- Automotive Fleet Maintenance Center is constructed adjacent to Los Angeles headquarters. A "mobile unit" is designed at Center for at-branch repairs.
- New branch is constructed at Long Beach.

1964 - -

- A new unified brand name, Arrowhead Puritas, is developed for all 3 types of drinking waters.
- Mountain Spring Water Company of Los Angeles is acquired.
- Bulk Distilled Water operation and Continental Water Conditioning Division are combined to form Industrial Water Division.



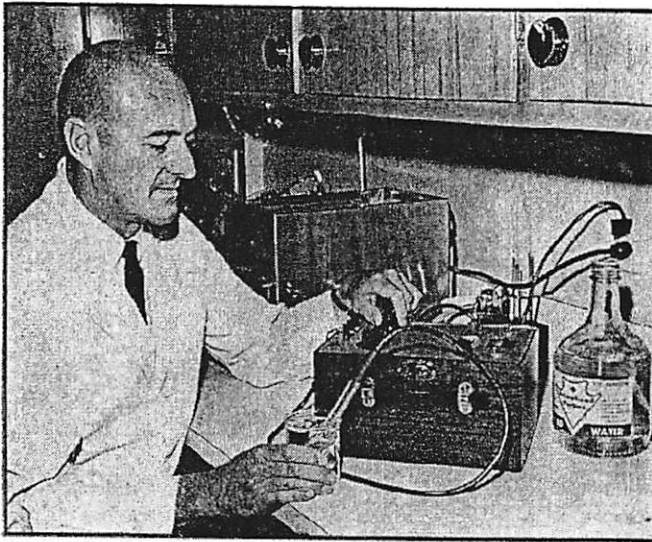
Automotive Fleet Maintenance Center at Los Angeles (left) and new Long Beach Branch (above) are completed in 1963.

1965 - -

- Net income exceeds the \$1 million mark for the first time in history.
- Constwide Water Cooler Company is purchased.
- New San Fernando Valley branch opens in Chatsworth, replacing Van Nuys branch.
- Small package line expands to include quarts, half-gallons and gallons, all "no deposit, no return."
- Filcore Water Conditioning Company is purchased and assimilated into Industrial Water Division.
- Upon the retirement of Everett Bruce, Ben F. Smithton is elected Director of the Corporation. L. I. Sands is elected Vice President of the Company.
- Orange County bottling plant is constructed, replacing old Santa Ana and Buena Park branches.



1965 Small Package product line.



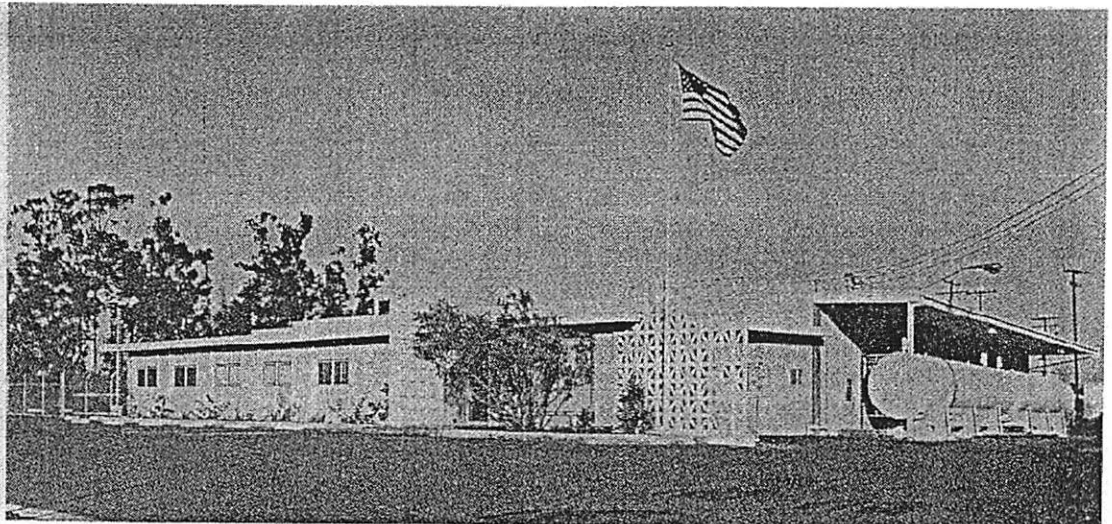
Dr. Brad Ward operates new laboratory.

- Properly adjacent to main Los Angeles plant is leased to house Los Angeles District.
- Company establishes and staffs its own bacteriological and chemical laboratory at Los Angeles.

1966 - -

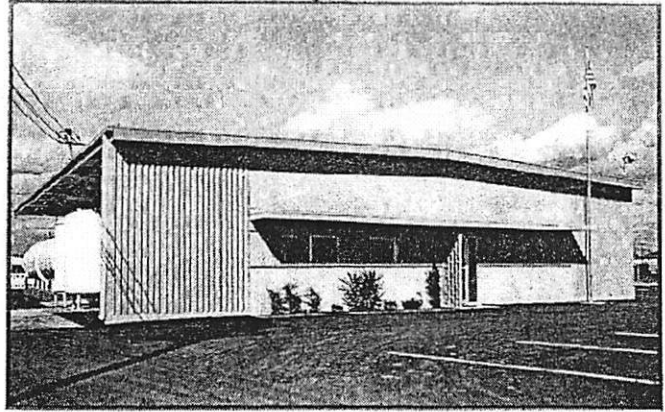
- Arrowhead Puritas extends its drinking water operations beyond the Southern California market with the acquisition of the Ozarko Water Company of Eureka Springs, Arkansas.
- Industrial Water Division designs and constructs new mobile detanization units capable of producing 100,000 gallons of purified water a day.

Orange
County
Branch
and
Bottling
Plant
opens for
business
in 1965.



1967 - -

- The company acquires Columware, Inc., producer and marketer of tea, cocoa and coffee dispensers and manufacturer of porcelain enamel products and electric water heaters.
- Ozarka Water Company of Houston is acquired, renamed Ozarka-Houston, Inc., and managed by APW personnel.
- The company is reorganized internally into 3 groups — Bottled Water, Industrial and Columware, to better manage the growing business of the company.
- Spring Pure water is manufactured and distributed in the Ventura District.
- CMD begins manufacture of 5-gallon metal crowns, this being the only such plant in the West to produce these bottle caps.



Bakersfield branch and plant constructed in 1968.

1968 - -

- Ozarka-Houston plant is expanded and modernized.
- The new Bakersfield bottling plant is constructed . . . begins manufacturing of Spring Pure water.

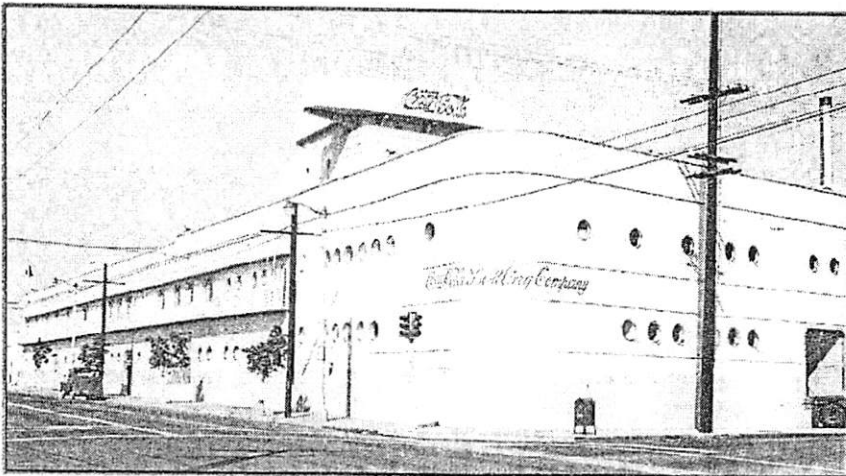
- Walkers Distilled Water Company of Houston is acquired by Ozarka-Houston, Inc.
- Distillation equipment is installed at branch bottling plants.
- Allegheny Beverage Company of Baltimore, through acquisition of APW stock, attempts to gain control of the company.



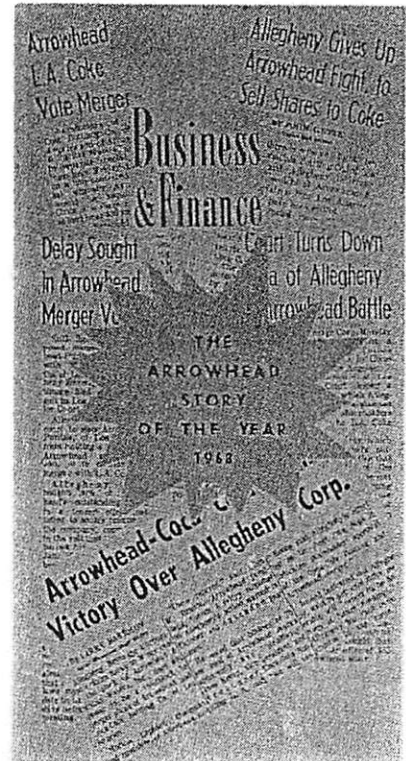
Columware dispenser division's full line (circa 1969).

1969 - -

- Through stockholders' approval, Coca-Cola Bottling Company of Los Angeles acquires ownership of Arrowhead Puritas Waters.

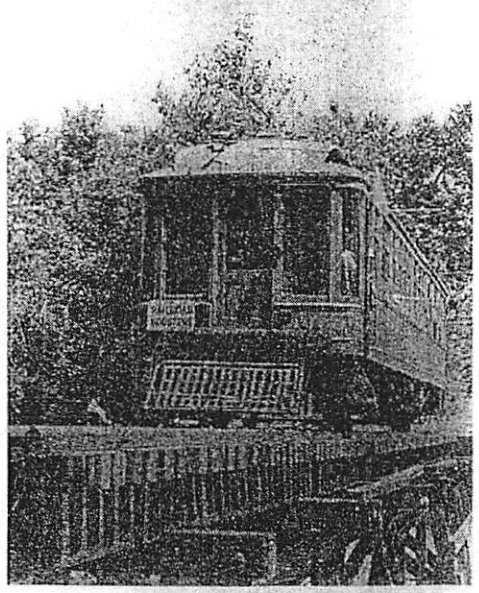
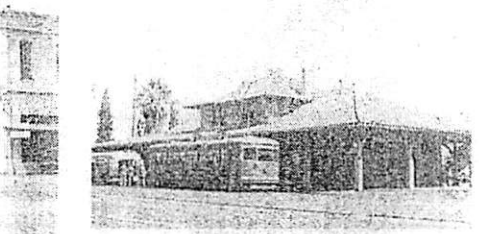
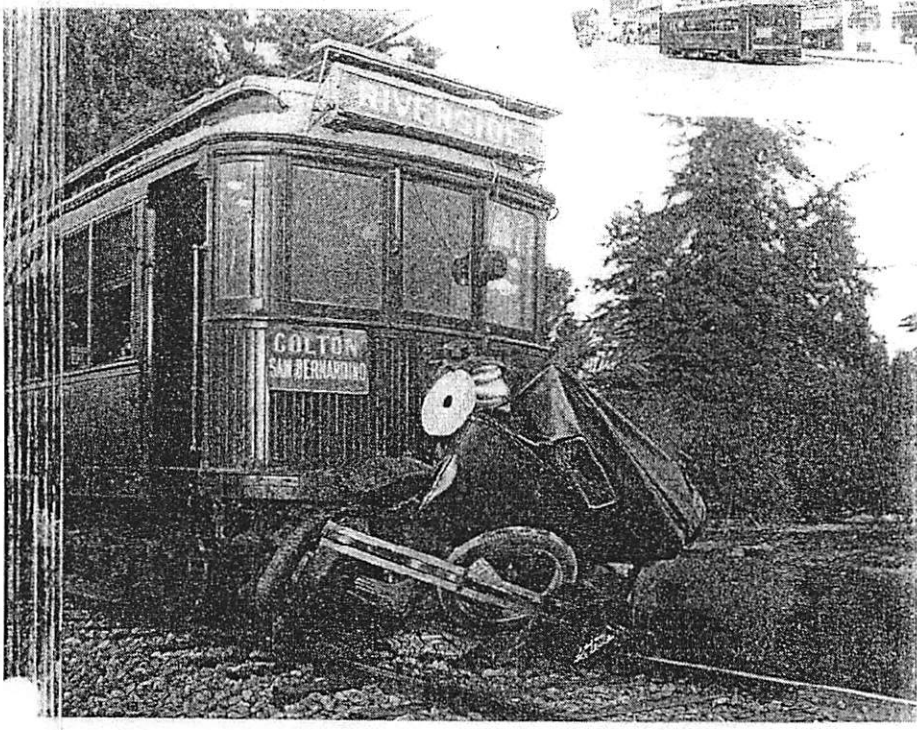
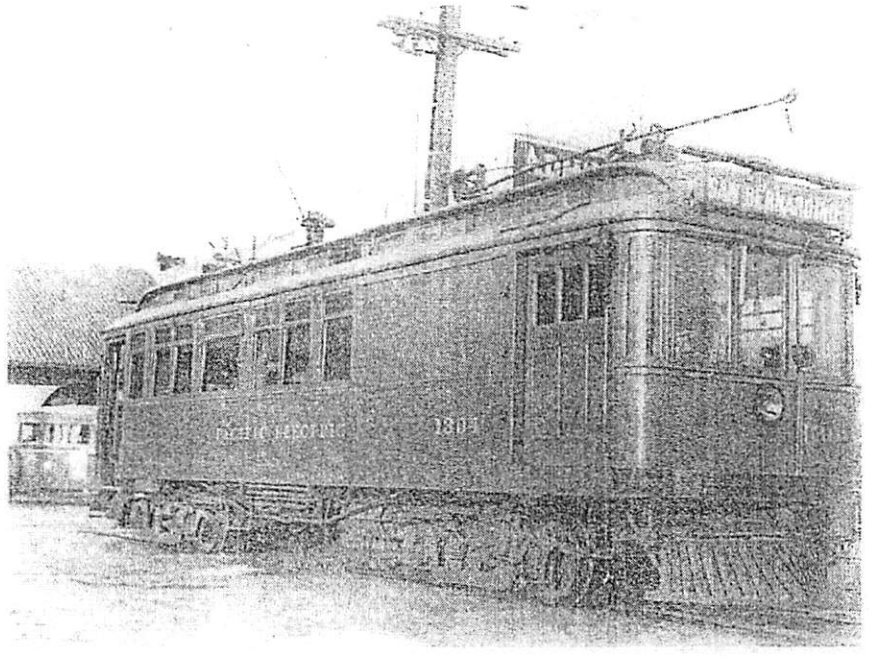
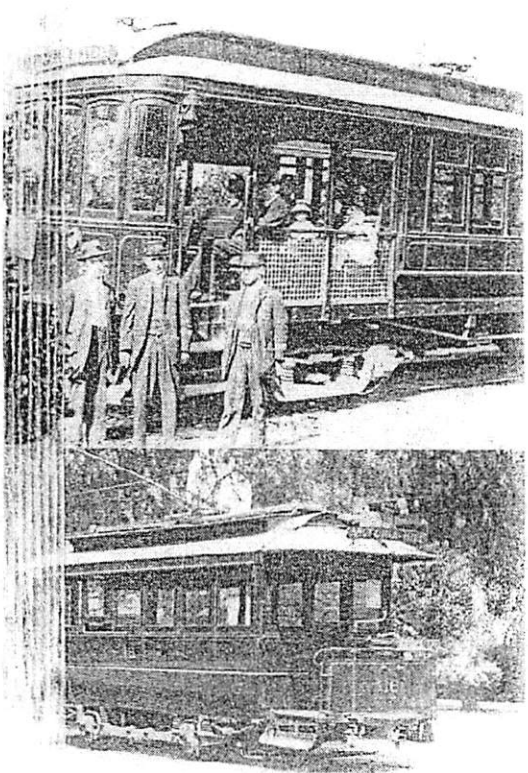


OCTOBER, 1969



Attachment 5

LINES OF PACIFIC ELECTRIC

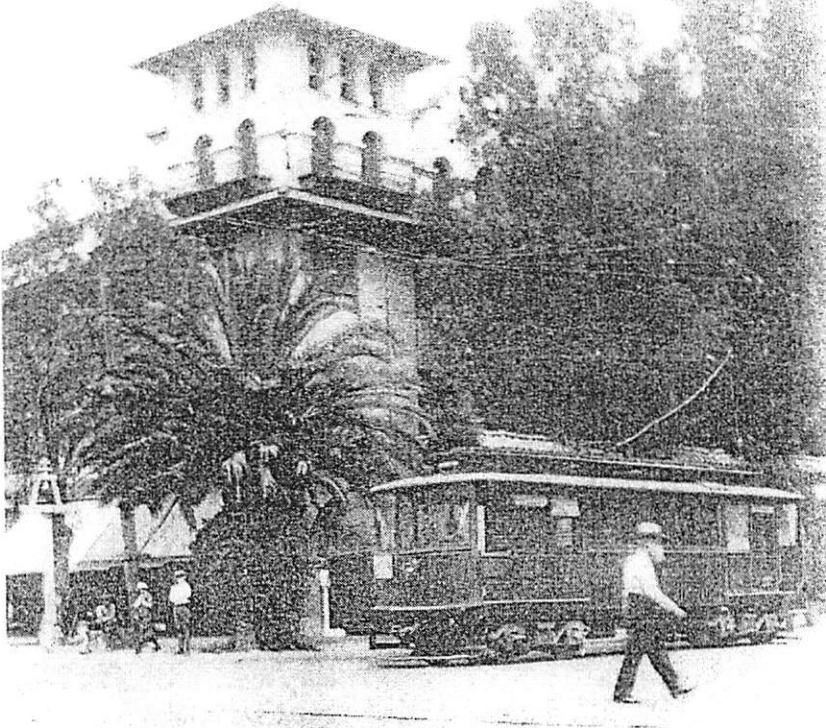


EASTERN DISTRICT

EASTERN DISTRICT

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(Left) Typical of Eastern District local service is this photo of one of the 195 Class cars on the Boulevard-7th St. line, Riverside. In background is part of Riverside's famous Mission Inn. (SM)

Grofftholdt was ably assisted by Assistant Superintendent G. H. Holt—and business was centered at the SP-PE Station in San Bernardino; additional space was added to the old SP Depot to accommodate the new electric railway administrative offices.

Without the population density enjoyed by the other Districts, the Eastern District was handicapped in the battle against automobiles and busses. It is not surprising, then, to find that many of the lines of this District were abandoned comparatively early. Without taking into consideration apportioned items of cost such as superintendence, practically all of these lines were operated either at an actual loss to PE or with a very small margin of profit. It is said on good authority that none of the Redlands lines save Sibley Heights ever showed a profit!

To combat the downward trend, PE installed Birney cars in 1916 in Pomona, Riverside, Redlands and San Bernardino. In 1920 the traditional 5¢ fare went up to 6¢. This was all in vain, and the excuse of a power shortage in 1924 enabled PE to cut many lines. 1925 saw more go, including all city lines in Pomona. One by one other lines followed, culminating in the final abandonment of Riverside service in 1943.

FACILITIES: Substations in the Eastern District were: No. 22-North Pomona, 23-Stilwanda, 47-Rialto, 27-Riverside, 48-Corona, 24-San Bernardino, 25-Arrowhead, and 26-Redlands. All local lines were 600 volts except the following which were 1200: Ontario-San Antonio Heights, San Dimas shuttle, and Pomona-Claremont-Upland east of North Pomona. Line cars used were 00157 and 00162 after 1916.

Car houses and capacities were: Redlands (4), Riverside (4), Pomona (4), San Bernardino B St. (4), San Bernardino Third St. (4), all as of 1912. The small shops at Riverside and San Bernardino were capable of overhauling one car each per month. The erection of the new San Bernardino Shops in 1918 focused all maintenance and light repair work there; heavy repairs required the 600-volt cars to be transported to Torrance Shops on flat cars. Photos of this San Bernardino facility appear on pages 1 and 20 of Special 16.

In the pages to follow, each suburban line of the Eastern District is given a page, and city lines are consolidated under the name of the city in which they operated. Accompanying each is a sketch map by Ray Youngmans; an additional map is included on the Riverside-Arlington line, this by Jack Whitmeyer.

We acknowledge the valuable aid extended by Messrs. Marler and Stevens of PE who made company records available for our use. Other data came from files of the Public Utilities Commission (California), the Electric Railway Journal and INTERURBANS' own files.

The PE's Eastern District comprised those of its lines east of Upland. For the sake of convenience, we have included the Pomona city lines and the San Dimas shuttle line, plus the Pomona-Claremont-Upland line. The headquarters of the Eastern District was located at San Bernardino, with an Assistant Superintendent in charge.

As of 1916, the Eastern District compared with PE's other districts as follows:

Northern:	279.41 miles	22 lines
Southern:	402.85 "	17 "
Western:	257.50 "	12 "
Eastern:	121.87 "	11 "
TOTAL:	1061.63 "	62 "

HISTORY: Electric traction in the Orange Empire of Southern California centered about three nuclei: San Bernardino-Redlands, Riverside, and Pomona. Each of these areas enjoyed well-developed electric railway service before the Great Merger of 1911.

The San Bernardino-Redlands group of lines was controlled by the San Bernardino Valley Traction Company, although an independent company operated one line in Redlands (Redlands Central Railway).

The Riverside situation was controlled by the Riverside & Arlington Railway, which had been a Huntington enterprise since 1903. An independent company built the line from Riverside to Rialto (Crescent City Railway Co.) but E&A, under agreement, provided all passenger service over the line.

Pomona was an Old PE operation, as was the San Dimas shuttle. An independent company, the Ontario & San Antonio Heights Railway, owned and operated two lines: Ontario-San Antonio Heights, and Ontario-Pomona.

It is not our intention at this time to delve into the pre-1911 histories of these lines. Part II of Special 16 will devote itself mainly to the lines after they became a part of the far-flung PE rail empire. Only a cursory history is outlined to enable readers to appreciate properly the origins of these once-important passenger routes.

The Eastern Division (District) was formed on 30 August 1913 by merging the San Bernardino and the Riverside Divisions, which had been created on 30 September 1911 (Pomona was included in the Riverside Division). This was coincidental with the linking up of the Riverside system with the San Bernardino system at Colton-West Highgrove. Superintendent

LOCAL RAIL LINES IN THE ORANGE EMPIRE

Pomona Local Lines

The thriving city of Pomona was founded in 1875, and soon grew large enough to support street railways. At one time in the early days, five street car lines operated there: The Second Street Line, The Orange Avenue Line, The Pomona Heights Railway, The Holt & San Antonio Line, and the Pomona Street Railway Company. The first four lines were operated by horses, but the last was spectacular; on it operated the "North Pomona Flier," a steam dummy combining passenger car and locomotive in one vehicle—it went puffing and puffing down the street, billowing clouds of smoke and steam, visual evidence to the awe inspired citizenry that the machine age had arrived.

The "North Pomona Flier" operated from Garey Ave. & Bertie St., Pomona, north along Garey Ave., Grange Grove Ave., Hiwassee St., Laurel St. to Railroad St., then west to a point opposite the Santa Fe Station in North Pomona. It operated continuously from November or December, 1887, to November, 1907. During 1895 the SP acquired control and operated it until operation ceased. SP then sold the line to PE (except the real estate it owned), giving PE its first entry into Pomona. PE tore up the old rail on Garey Ave. and put down an electric railway constructed of 70-lb. steel rails. PE did retain enough P&Sry real estate to furnish a site for its substation at Garey & Bertie Sts.

PE at once began the development of its Pomona city lines, doing the work through the PE Land Company. This work was performed from 1 Oct 1907 to 15 Sept 1911. When completed, the Pomona city lines aggregated 10.43 miles of equivalent single track, divided thusly: 1.24 miles double track, 7.09 miles single track, 0.06 miles spurs and sidings.

Trackage in Pomona was laid as follows:

Garey Ave., 4th to Walnut:	Tracks laid	December, 1907
Walnut St. to Park Ave.:	"	December, 1909
West Holt Avenue:	"	December, 1907
East Holt Avenue:	"	June, 1909
West Second Street:	"	March, 1910
S. Garey & E. Fifth St.:	"	September, 1910
S. Garey & Franklin Ave.:	"	August, 1910
Ganeshia Park Lines:	"	December, 1909

GAREY & PARK AVE. LINE: Route: From Palomares St. & Franklin Ave. (Pomona Valley Cemetery), west on Franklin Ave. to Garey Ave., north on Garey to Holt Ave., west on Holt to Huntington Blvd., north on Huntington to Ganeshia Park, then the Park to Walnut & Garey, south on Garey to Holt, then to starting point, Palomares & Franklin.

OPERATIONS: As of 1 Feb 23, car left Cemetery at 6:20 AM and every 40 minutes until 6:20 PM; then car left Franklin & Garey at 7:30 AM and hourly until 10:30 PM. From Ganeshia Park, car left at 6:00 AM and every 40 minutes until 6:40 PM; then 7:15 PM and every 30 minutes until 10:45 PM with 15-minute car running via Holt Ave., 45-minute car running via N. Garey.

W. SECOND & PARK AVE. LINE: Route: From W. Second & Oak St., via Second to Garey, north on Garey to Park Jct., west through Ganeshia Park to Huntington, north on Huntington to Holt, east on Holt to Garey, south on Garey to starting point, the end of W. Second St.

OPERATIONS: As of 1 Feb 24, car left end of W. Second at 6:40 AM, then every forty minutes until 6:00 PM; returning, car left Ganeshia Park at 7:00 AM and every forty minutes until 5:40 PM, then 6:20 PM car to Third & Garey only; later service furnished by Garey & Park Ave. cars alternating (see above).

HOLT & E. FIFTH ST. LINE: Route: From E. Fifth & County Line (the 1900 block), west on Fifth to Garey, north on Garey to Holt, east on Holt to Reservoir Ave. (Garfield Park).

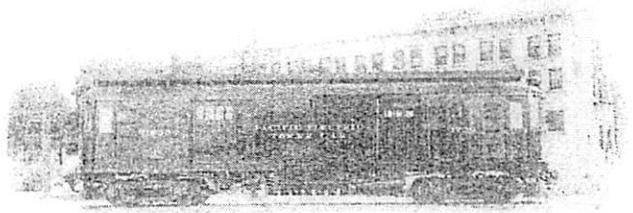
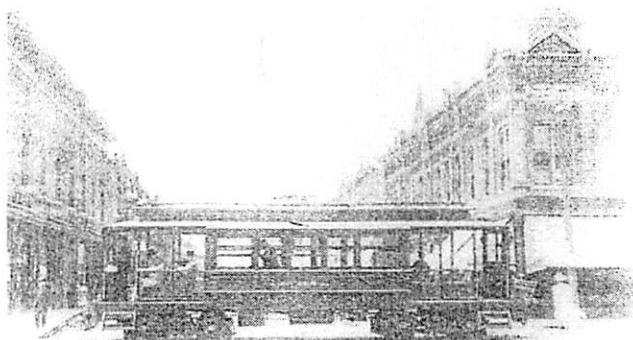
OPERATIONS: As of 1 Feb 24, car left end of E. Holt Ave. at 6:20 AM, then every forty minutes until 6:20 PM; then 9:10 PM, 9:40 and 10:20 PM. Returning, car left end of E. Fifth St. at 6:00 AM, then every forty minutes until 10:00 PM; then 10:40 PM to Third & Garey only.

MISCELLANY: PE's original substation in Pomona was located at 1st & Garey Ave.; in October 1910 the output of this substation was doubled; two years later it was abandoned, its equipment taken into Los Angeles, and a new substation erected at North Pomona. Pomona was never given a station commensurate with its size; the two-block-long yard at Fifth & Garey had a corrugated iron shed in former years, but it disappeared about 1922. Although PE announced as early as 1912 it would build a station building there, it never came to pass. A passenger shelter was built at Walnut St.

The E. Fifth St. line was intended to be PE's direct route to Ontario and was built with heavy (90 lb.) rail for this reason. In April 1912 PE acquired the Ontario & San Antonio Heights Railway; its round-about route thereafter became unassailable.

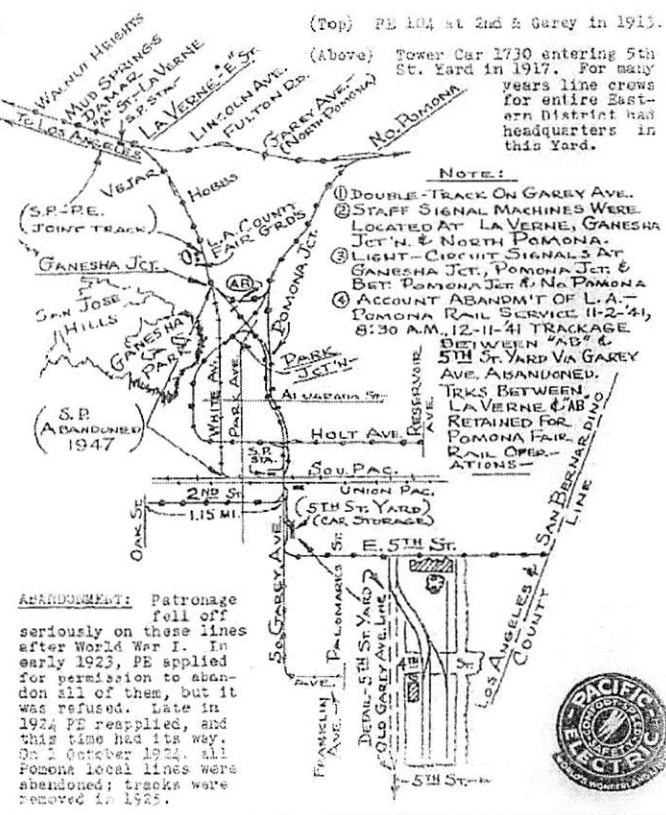
Pomona was somewhat unique in the matter of car types used. The C&SA used its wooden California cars on Garey Ave.; with the putting of Pomona local lines into the Riverside Division in 1911, Pomona was assigned a number of old Riverside cars. Birneys came in 1918 but gave way to the 170 Class steel center-entrance locals; these put in more time at Pomona than anywhere else on PE, with all eight being assigned to Pomona area from 1920 to 1926, with two or three staying until final abandonment of the Clearmont Line.

Working out of Pomona was the San Dimas shuttle car, running between Lone Hill (San Dimas Jct.) and the San Dimas PE Station. This was a 170, one to 1200 volts in the trolley wire.



(Top) PE 104 at 2nd & Garey in 1913.

(Above) Tower Car 1730 entering 5th St. Yard in 1917. For many years line crews for entire Eastern District had headquarters in this yard.



ONTARIO - SAN ANTONIO HEIGHTS LINE

This was the original line of the Ontario & San Antonio Heights Railway Company. The line began operating with mule cars in 1888, a mile heading the little single-track car from State St. (Ontario) due north to San Antonio Heights, about ten miles north and 1200 feet higher; on the return trip the motive power climbed aboard a tiny trailer and coasted down with the car. When O&S&A electrified the line in 1897, the mules became the property of a nearby rancher; the story goes that the temperamental animals pulled the plough fine uphill, but refused to work downhill.

A thirty acre amusement park was built by the company at San Antonio Heights, with a powerhouse adjoining. Heavy crowds were transported along Euclid Ave. in the early days, for the line connected Ontario with Upland, provided connections between the SP Station at Ontario and the Santa Fe Station at Upland, and cared for the throngs bound for pleasure-seeking at the Park. Euclid Ave. was famous for its divided highway; in the wide center strip was a double line of huge pepper trees, and between the rows of trees, set in a grass-covered private way, went the single track of this line.

Owned after electrification by Ontario Electric Company, the line became the property of the Pacific Light & Power Corporation in a merger in 1908. Mr. William G. Zerkowoff, at that time president of PL&P, energetically pushed the expansion of the O&S&A by building its branch to Pomona and projecting another branch to San Bernardino. However, the O&S&A was purchased by SP on 13 April 12 and this line, plus the line from Upland to Pomona, passed into PE hands.

Route: From Ontario Chamber of Commerce at Depue St., north on Euclid Ave., passing the Central School at G St., the Jeffrey Union High School at 4th St., making a crossing of the Santa Fe main line at A St., to PE Station, Upland, from here the line continued due north on Euclid Ave. to 24th St. (La Cima), where it turned west on private way to San Antonio Heights.

History: Acquired by PE 1912. In 1914 established as Ontario-San Antonio Heights Line (branch to Pomona separated and became Pomona-Clairemont Line at this time). Line cut back to La Cima on 4 July 24; on 1 Nov 24, cut back to Upland. On 6 October 28, Ontario-Upland Line abandoned.

Operation: The main function of this line after 1914 was to provide a shuttle service between Ontario and the main line at Upland. This round about way to get to the L.A. area suffered heavily when motor bus operation began on direct highway route. In the abandonment hearing in 1928, PE produced records which tended to show that this line was hopelessly incapable of earning even operating expenses. Passenger traffic fluctuated widely, as the following figures show:

Year	Passengers	Car Miles	Revenue
1913	918,728	295,840	\$73,491
1914	812,478	232,916	\$6,181
1915	184,750	74,724	8,745
1916	133,239	73,928	7,019
1920	182,768	124,074	20,747
1923	163,321	124,649	27,798
1924*	190,418	62,099	14,180
1924†	66,947	23,776	5,821
1924‡	37,692	11,621	3,113

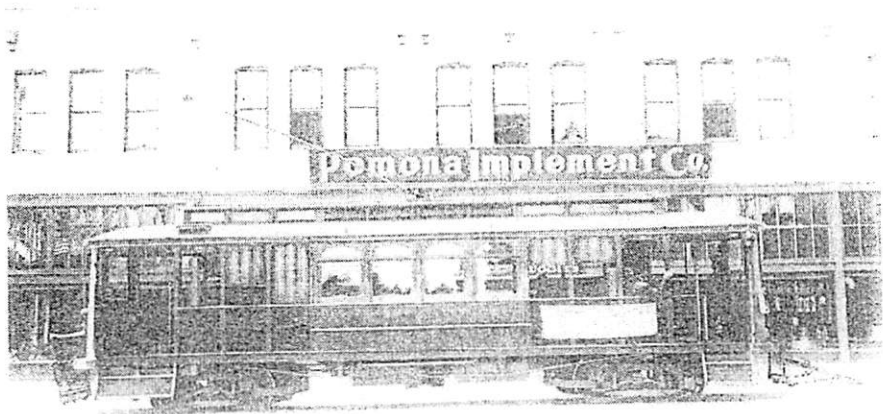
* Ont-SA Hts. cut back July 3

† Ont-La Cima Line to October 31

‡ Ont-Upland only

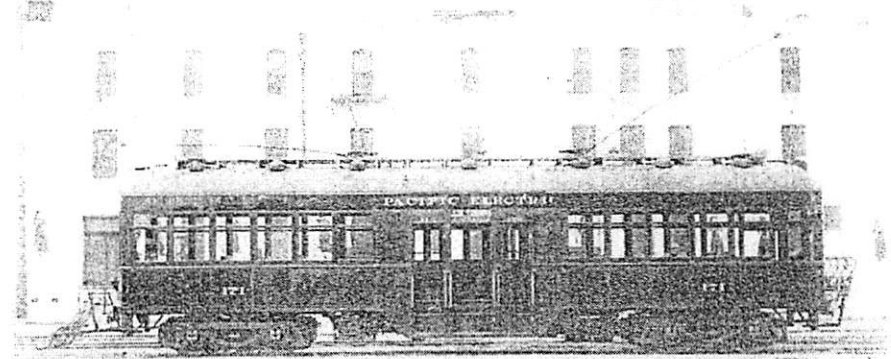
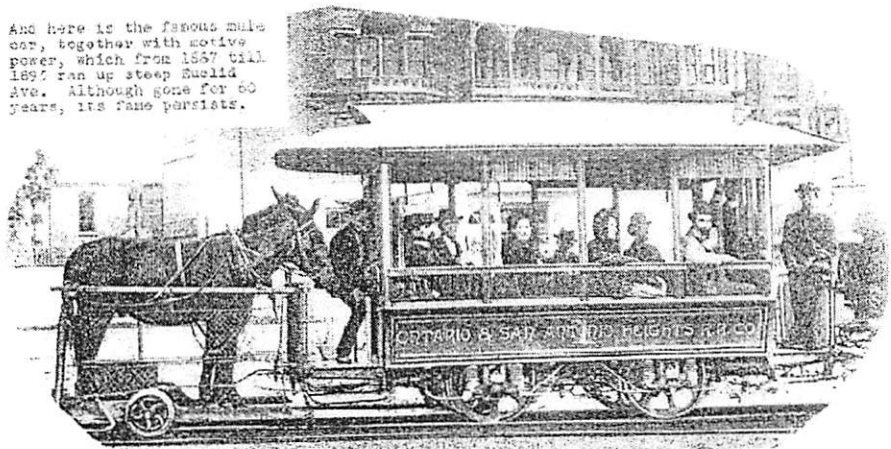
As of 1 Feb 24, PE public timetables had separate listings for: Upland-SA Hts. Line and Upland-Ontario Line. Approximately one hour service was given from Upland to the Park from 5:45 AM to 10:45 PM. Upland to Ontario service was approximately twenty minutes during rush periods, one hour at off peak periods. 31 round trips daily were made, of which 15 made connections with main line trains.

INTERURBANS



O&S&A's best cars were six built by Kuhlman Car Company in 1911-12. Shown above is car 14 in Pomona in 1912. Numbered 1A through 1G on O&S&A, these California cars were only Kuhlmans ever to run on PE.

And here is the famous mule car, together with motive power, which from 1887 until 1897 ran up steep Euclid Ave. Although gone for 60 years, its fame persists.



Car 171 of 170-179 Class. PE's only city cars capable of operating on 1200 volts; these cars provided all service on Pomona-Upland line, San Marcos Route, and Ontario-San Antonio Heights. All were assigned to the Pomona-Ontario area after 1928.

POMONA - UPLAND LINE

The Pomona-Clearmont-Upland Line was acquired by PE on 12 April 1912 when PE purchased the Ontario & San Antonio Heights Railway Company from the Pacific Light & Power Corporation (now Southern California Edison Company). This line was one of the owned and operated by O&SA, the other being the route due north out of Ontario via Euclid Ave. to San Antonio Heights; the latter was the original line of O&SA and ran from 1887 until 1909 as that railway's only line.

On 31 July 1909, work began on O&SA's extension from Upland to Clearmont, about three miles. A franchise was secured in Pomona, and O&SA built on into that city, although the route was apparently circuitous.

At this time, PE was busy building and extending its city lines in Pomona; among Mr. Huntington's long plans was one for a direct line to Ontario; this would have cut O&SA's patronage almost to zero, as well as discouraging bus competition, but before Huntington could extend his E. 5th St. line in Pomona, the Great Merger occurred and all talk of the direct Pomona-Ontario line was dropped until 1914.

To return, President William G. Kerckhoff of P&M-O&SA pushed construction and on the first day of 1911, O&SA cars began running between Upland and Pomona. O&SA then turned its attention to its original line on Euclid Ave. from Upland to Ontario, rebuilding it with heavier rails to accommodate heavier cars. These cars were built by Pullman and hence PE 152-157; they were the first California cars to have the brilliant truck and two 65-hp motors were considered sufficient to buck the severe grades to San Antonio as well as to make good time on the level run to Pomona. The rebuilt Euclid Ave. track was placed in service about the first of May in 1911, and through service between Ontario and Pomona was immediately established.

President Kerckhoff then looked about for more worlds to conquer. In July 1911 he made a public statement to the effect that if the O&SA received free right of way to San Bernardino, it would build at once the 24-odd miles necessary to complete a through line to L.A. What the Southern Pacific thought of this was made clear on 12 April 1912, when it announced it had acquired the O&SA.

The through service between Ontario and Pomona had not long to live under PE. 1914 saw a competing bus service established on the direct highway route, and the PE had to withdraw. The line was divided into two separate lines: (1) Ontario-San Antonio Heights line, and (2) Pomona-Clearmont line. Service between Clearmont and Upland was provided by main line trains.

POMONA-CLEARMONT LINE: Route: From Pomona (Main & Garey), north on Garey to Walnut St. (Pomona Jct.), then on private way to North Pomona where it joined the main line; then east on private way to PE Station in Clearmont (College Ave.).

History: Built 1910 by O&SA. Acquired by PE 1912. Service abandoned on 1 Jan 35.

Operation: As of 1927, service was provided by two 170 Class cars. Two crews of two men each were required, with headquarters at Pomona. Approximately an hour headway was maintained from 7:00 AM to 10:00 PM during which time 14 trips were made. There were also conducted 13 additional trips between Pomona and North Pomona for connection with main line trains by other crews. Running times: Pomona-North Pomona: 12 minutes (2.76 miles); North Pomona-Clearmont: 7 minutes (1.99 mi.), making a total of 19 minutes for the 4.75 miles.

Financial results of this operation for 1926: Revenue, \$12,925; expense, \$15,650; taxes, \$700. Loss: \$3,425.

How passenger totals declined on this line may be clearly understood by a study of the official figures:

Year	Passengers	Ret. Tickets	Revenue
1911	541,863	51,782	523,157
1916	631,978	217,635	51,200
1918	495,689	199,393	42,272
1920	302,018	85,515	20,542
1922	186,721	36,519	19,013
1924	149,320	31,252	14,514
1926	140,675	77,860	12,925
1915*	732,979	241,437	63,851

*Best year

MISCELLANY: Due to 1200-volt operation on the main line, 170 Class cars were required. These cars were not capable of modification to one-man operation, hence while car miles operated annually remained nearly constant down the years, revenue per car mile greatly decreased. (\$0.224 (1916) and \$0.167 in 1926)

Cars operating on this line were listed in PE employees' timetables as second class trains (they were listed in the main line timetable). These second class trains were required to register at Clearmont.

Cars on this line were governed by light circuit between Pomona Jct. and North Pomona, and by staff machines between North Pomona and Clearmont.

PE public timetable effective 1 Feb 24 listed 19 daily trips from Pomona to Clearmont and 20 in the reverse direction. In addition there were 9 daily trips from Pomona to North Pomona and 10 in the reverse direction. Of the 19 trips to Clearmont, 3 continued on to Upland, while 3 of the 20 in the reverse direction originated at Upland; this Upland service was provided very early in the morning and very late at night.

O&SA track terminated at Walnut St. (Pomona Jct.), and from there to 5th & Garey, O&SA had trackage rights over PE.

Changeover to 1200 volts was made at North Pomona.

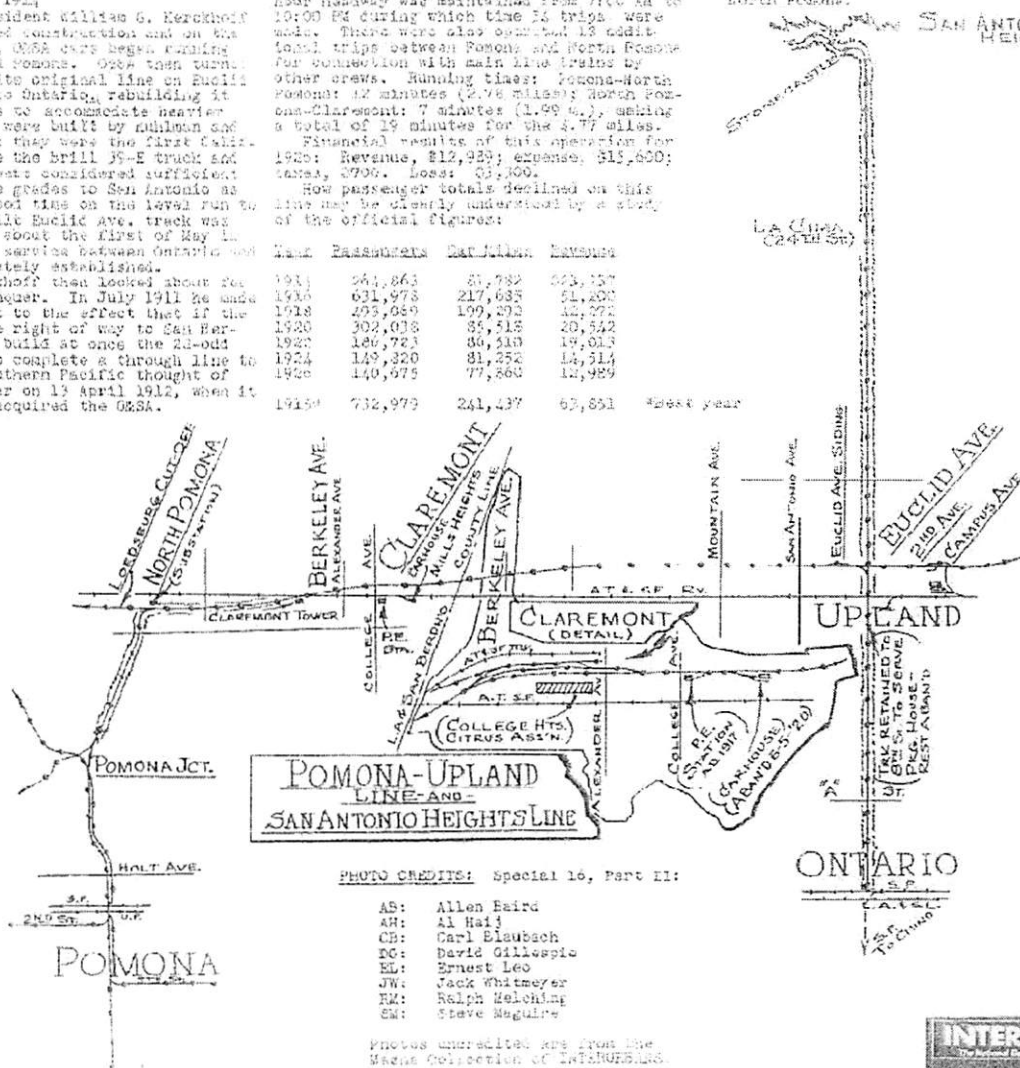


PHOTO CREDITS: Special 16, Part II:

- AB: Allen Baird
- AM: Al Hall
- CB: Carl Blaubsch
- DC: David Gillespie
- EL: Ernest Leo
- JW: Jack Whitmeyer
- RM: Ralph Melchling
- SM: Steve Maguire

Photos uncredited are from the Manna Collection of INTERURBANS.



San Bernardino Local Lines

As of 1 Feb 24, PE operated the following local lines in the San Bernardino area: San Bernardino-Urbite Springs, San Bernardino-Colton, and North D St.-Highland Ave. These lines were acquired in 1911, as a result of the Great Merge.

URBITE SPRINGS LINE: Routes From 3rd & D, west on D to E St., south on E to Urbite Springs.

History: Built by SBVT in 1902 and Urbite Springs amusement park built in year 1903. SBVT built its shops on this line. Abandoned 17 Oct 27, track removed at once. (1.459 miles of single track on E St.)

OPERATIONS: As of 1 Feb 24, car left 3rd & D for Urbite Springs 6:03 AM and every 30 minutes until 11:55 PM; car left Urbite Springs 6:20 AM and every 30 minutes until 11:50 PM.

For practically its entire length this line paralleled the San Bernardino-Riverside line. In 1927 at the abandonment hearing, PE presented evidence tending to show that the line was operated at an out of pocket loss of approximately \$1,700 annually, and would have to be rebuilt in the near future at an expense of \$63,000.

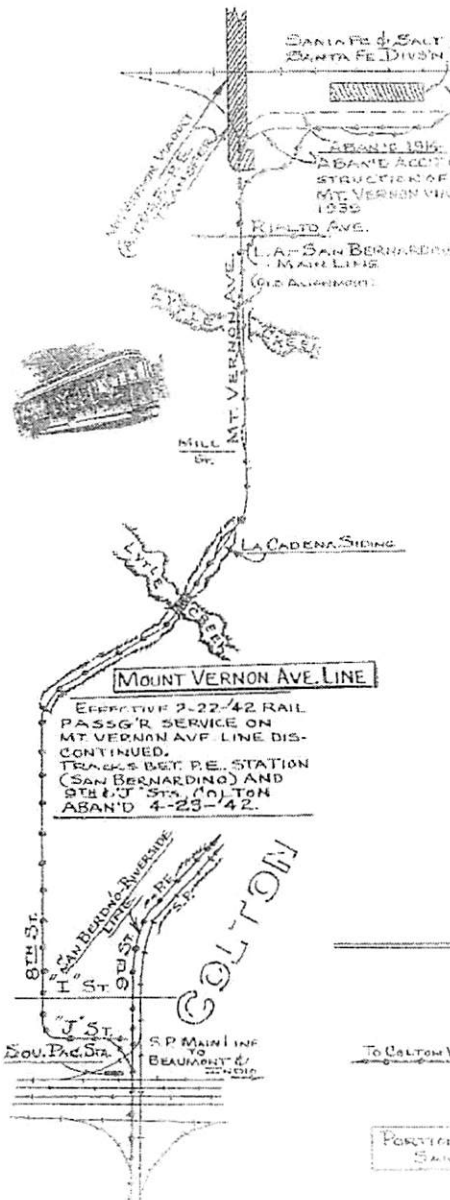
Each in the good old days of SBVT, this line in summertime hauled fabulous crowds. Oldtimers recall conductors on open cars 38 and 39 (PE) turning in their transfers in

bushel baskets full of overflowing. Special days at the Springs brought through service from Redlands and Colton, taxing the single track on E St. to absolute capacity. Meets were made at the car barn way.

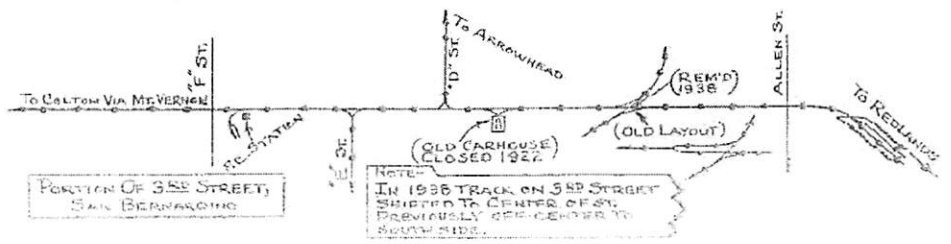
In modern times, this line saw heavy use during the annual Orange Show, with 1700s rolling up to the door of the big exhibition building.

Urbite Springs replaced Harlem Springs as "the resort-amusement park of San Bernardino County. Among its attractions were swimming, dancing, picnic grounds, and boating. PE sold this property in 1924 to Ernest C. Pickering, who opened it on 21 June 1924 as "Pickering Park."

Until replaced by the 3rd St. Cut-Off in 1906, this line was part of the Redlands Line.



In the above photo, car 94 is shown at 3rd & E Sts., San Bernardino, about 1912. At the height of the streetcar era, this intersection was the heart of the local system in the Gateway City.



COLTON LINE: Route: Left 9th & J Sts. in Colton, west on J to 8th St., north on 8th to La Cadena, east on private way to Mt. Vernon Ave., north on Mt. Vernon to Third St. (SE), east on Third to D St. 4.24 miles, single track.

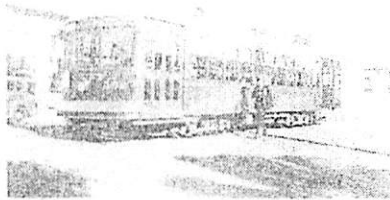
History: Built by SBVT in 1902. Abandoned 22 Feb 42.

Operation: As of 1 Feb 22, cars left 3rd & D Sts. (SE) at 6:30 AM, then every 15 minutes until 7:15 PM; then 7:45, 8:15, 8:45 and every 30 minutes until 11:30. Cars left 8th & J Sts. (Colton) at 5:53 AM, then every 15 minutes until 7:15 PM, then every 30 minutes until 11:29, then 11:57 PM. This line was operated mainly within San Bernardino, but also served a part of Colton to the south of the SD business district. It served the AR&SF-UP Depot, the AR&SF Shops, a well-built-up residential district, the business district of Colton, and the Colton SP Depot.

As of 1927, ten cars consisting of two men each were required, using five cars of the 200 Class. The line was entirely single track and had four passing tracks. These figures include the North D St.-Highland Ave. line which for most of its life was through-routed with the Colton Local line. Revenue for 1926 was \$78,236. Operating expense including taxes was \$75,600, leaving a net income of approximately \$2,636 yearly.

Best year for the line was 1923, when it carried 1,525,275 passengers, 314,965 car miles, and \$95,720 revenue. Most through traffic was lost to the San Bernardino-Riverside Interurbans after 1914; for instance, this line carried 1,009,960 passengers in 1914 and the following year only 411,688.

(Below) 152 at Colton in 1938. (48)



NORTH D ST.-HIGHLAND AVE. LINE: Route: 4.6 miles

1 Feb 24, left PE Station (SE), east on 3rd to D St., north on D St. to Highland Ave., east on Highland Ave. to Arrowhead Ave. & B St. In order to serve a rapidly growing residential area, this line was extended to 27th & Mountain View Ave. on 1 May 37.

History: (See Arrowhead Line)

Operation: This line established prior to 1910 by SBVT to provide out-back service on Arrowhead line. On 1 May 10 it was through-routed with Britts Springs line, using two cars on a 20 minute headway. PE through-routed this line with Colton line probably in 1917, and it remained tied to the Colton line until abandoned on 22 Feb 42 although a franchise car continued until 8 April 42.

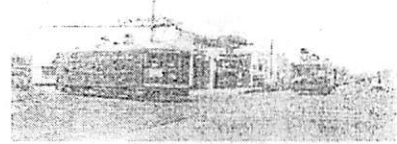
As of 1 Feb 24, cars left PE Station (SE) at 5:43 AM, then every 15 minutes until 7:37 PM; then every 30 minutes until 11:07, then 11:14 AM. Cars left Highland Ave. at 6:02 AM, then every 15 minutes until 6:17 PM; then every 30 minutes until 11:17, then 11:23 and 11:27 AM. (Note: There were some trips, same cars, same crews which appear above under Colton line.)

COLTON-HIGHLAND AVE. LINE: The through-routed local line and the N. D St. line (see above) resulted in this line. From Colton, the main stops and mileages were: La Cadena (1.37 mi.), Santa Fe Station (3.38), P.E. Station (4.10), Third & J Sts. (4.24), Base Line (5.42), Highland Ave. & B St. (6.55). When the line was extended to 24th & Mountain View, it added another 1.01 miles to this total.

One railroad was crossed at grade: in San Bernardino this line crossed the AR&SF on Third St. just west of J St.; two-man crew flagged across, one-man crew observed from within car and if safe, proceeded. After the extension to 24th St. in 1937, another AR&SF crossing was treated in like manner. It was located 0.75 miles south of 24th St.

CARS: Cars used on the Colton-Highland Ave. line were:

1911: 2-120	1922: 5-120	1931: 5-100
1913: 4-200	1923: 5-120	1933: 6-100
1915: 4-200	1925: 5-120	2-120
1918: 4-200	1927: 5-200	6-100
1920: 4-120	1929: 5-200	2-150



(Above) Cars met at the vye at 3rd & B; here we see 105 and 100. 58 there made their meet on 7 June 1941. (JK)

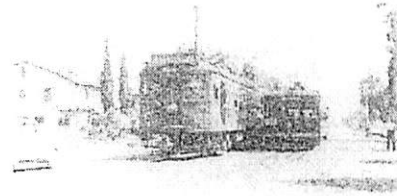
MISCELLANY: Power for this line was supplied at 600 volts from substations 24 at San Bernardino and 25 at Arrowhead.

After abandonment, PE used cars 1936 and later 1952 to make the franchise runs; for a short time a 100 Class car was used but so many patronized it in preference to the bus that the 1936 was put back on.

At Mt. Vernon & Pisto Ave., this line crossed PE's main line to L.A. A somewhat elaborate overhead construction was required to keep the 600-volt trolley wire and the 1200-volt wire separate. Needless to say, the gas came in the 600-volt wire.

From 1 June 31 to 25 Nov 31, this line furnished connecting service to Arrowhead line; latter line was then operated as a shuttle from Highland Ave. to Crusher (1.00 miles) with one round trip to Arrowhead Springs.

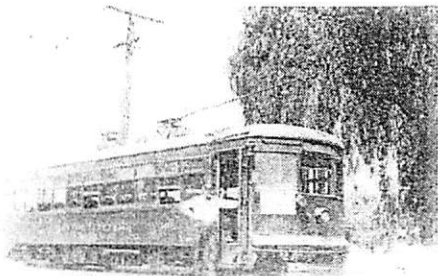
(Below) One of the few times a large interurban car ever traversed this line was on 15 June 1941, when a Railroad Boosters' Special ran up to Arrowhead. Here 1371 and 102 pass on D St. at Base line. (JK)



Route: From Lone Hill (San Dimas Jct.) to San Dimas PE Station, 1 1/2 miles.

History: Built 1911 by PE; opened 11 February 1911 by through cars from L.A. When through cars diverted to Pomona on 1 September 1912, this line established as shuttle connecting San Dimas with Main Line. Service abandoned 4 July 1924.

Operation: As of 1 February 1924, car left San Dimas PE Station at 6:32 AM, 7:00, 7:41, 8:07, 8:29, 9:40, 10:40; then 1:55 PM, 2:53, 3:56, 5:00, 5:35, and 6:54 PM. Returning, car left Lone Hill at 6:43 AM, 7:12, 7:51, 8:16, 9:04, 10:06, and 10:56 AM; then 2:20 PM, 3:19, 4:22, 5:25, 6:10 and 6:45 PM. Running time: 6 minutes.



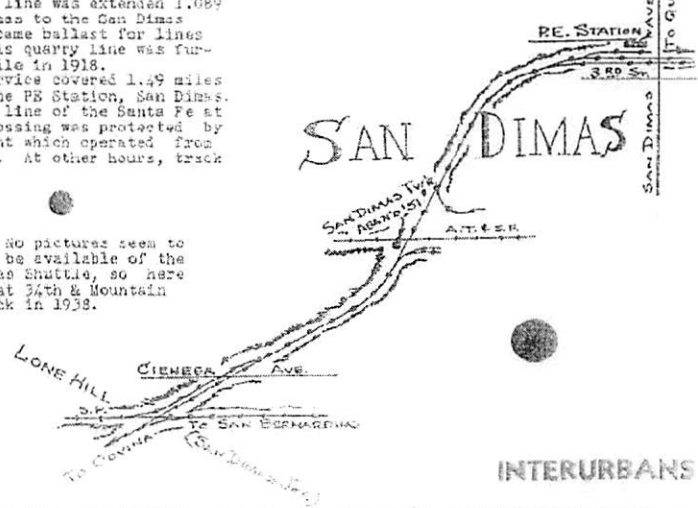
(Left) No pictures seem to be available of the San Dimas Shuttle, so here is 108 at 34th & Mountain View back in 1938.

San Dimas Local Line

Miscellany: Chief importance of this line was to give PE access to large gravel quarries in the canyons behind San Dimas. In 1910 the line was extended 1.089 miles beyond San Dimas to the San Dimas Quarry, from which came ballast for lines east of Covina. This quarry line was further extended one mile in 1918.

The passenger service covered 1.49 miles from Lone Hill to the PE Station, San Dimas. It crossed the main line of the Santa Fe at 0.92 miles; this crossing was protected by an interlocking plant which operated from 6:00 AM to 10:00 PM. At other hours, track

was lined for the Santa Fe. The car for this line was a 170; it was based at Pomona and required a two-man crew.

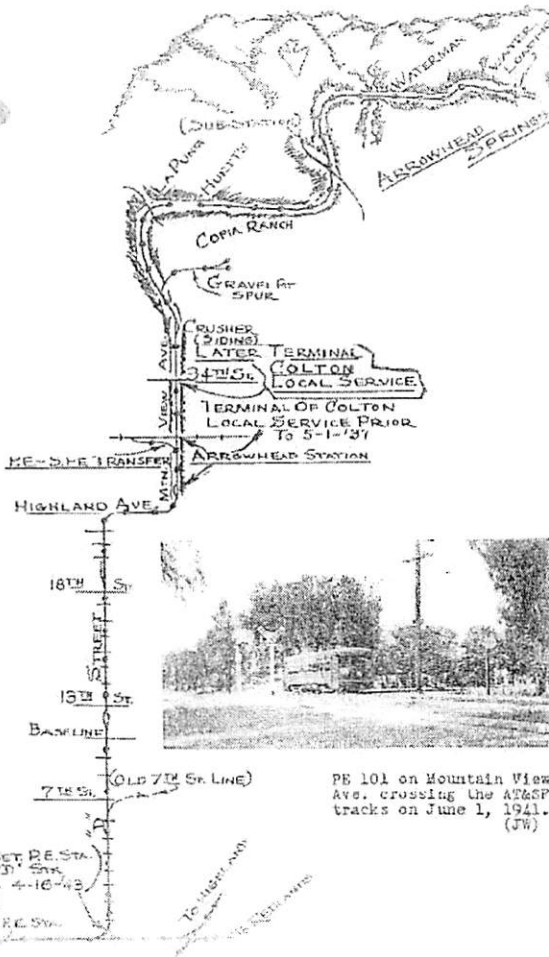


INTERURBANS

ARROWHEAD LINE



Here is the 1911 in the San Bernardino station yard in 1932, ready for its run up the steep grade to Arrowhead Springs. This car saw service at the geographic extremes of the PE's system; built at Redondo beach for service between that town and Los Angeles, it saw much use in the Orange Empire before being retired in 1937.



This line was a suburban line operated from the San Bernardino PE Station northerly to Arrowhead Springs, where connection was made with a private bus for resorts farther up in the mountains. Operation from San Bernardino to Highland Ave. was over a single track line jointly used by the San Bernardino-Colton local line, and ran through a fairly well built up residential district. Beyond Highland Ave. the territory was not thickly settled and the remainder of the run was made through "wide open spaces."

ROUTE: From San Bernardino (PE Station) to Arrowhead Springs via Third, 15th, Highland Ave., "SB" and private way. 7.25 M.

HISTORY: Built from 3rd & D to Base Line & D by SBVT in 1901; it was the first electric line in SB and opened for service on 22 February 1902. Extension north to Arrowhead Springs Hotel was built in 1906-07 and opened on 15 March 1907. The 1924 power shortage caused temporary suspension of service, but restoration took place on 2 January 1925. Final abandonment of passenger service occurred on 1 September 1932. Freight service continues to date, composed entirely of tank cars to and from bottling works at Arrowhead Springs; this service discontinued in 1943.

OPERATION: Passenger service as of 1 Feb 24 provided six trips per day in each direction, giving a headway of approximately two hours during morning and evening peaks (1) with three-hour service midday. The old wooden car left San Bernardino at 7:27, 9:27 and 11:27 AM--and 1:42, 4:27 and 5:42 PM; returning, the car left Arrowhead Springs at 8:04 and 10:04 AM, and 1:04, 2:10, 5:04 and 5:19 PM.

SCHEDULE and running time: FROM SAN BERNARDINO to Highland Ave. was 2.95 miles, covered in 15 minutes; to Severance was 2.45 miles, made in 13 minutes; to Arrowhead Springs was 2.25 miles, covered in 10 minutes--giving a total of 7.25 miles and 36 minutes.

Revenue for this line for 1926 was \$3,412, and cost of operation was \$6,200; deducting taxes (\$175) resulted in a net out-of-pocket loss from passenger operation of about \$200 annually.

In 1910, this line carried 64,010 passengers; in 1924 the total dropped to 17,377--although the territory had built up greatly.

EQUIPMENT: SBVT 100 (PE 1313) was the regular car until succeeded by PE 1310 about 1 Feb 12; 1310 had magnetic brakes due to severe grades encountered. PE 1311 was also used. A Birney was assigned to the line for a time. Freight motive power was one of the 1550 Class built 1922, then 1590 and 1491 until dieselization.

MISCELLANEOUS: A substation was built at Arrowhead in 1907 "to supply sufficient power for the big cars which climbed the steep grade..." Wire destroyed it on the night of 23 April 11, and a portable substation was sent out from Los Angeles; it took four hours for SBVT's big freight motor to haul the portable substation up to Arrowhead; power from all the city lines was concentrated on the Arrowhead line for that particular run. The rebuilt substation was placed in service on 6 May 11.

General Manager Merrilhue (SBVT), speaking on 26 June 10, had the following to say regarding the Arrowhead line: "Mr. Huntington has that Arrowhead line on his hands, which was built against his judgment, and it is one of the reasons why the SBVT is not paying dividends today. There is a line which cost \$180,000, running to a hotel of \$100,000, capable of caring for eighty people. Never in a thousand years will the line pay, unless there is water secured for the territory about it and it is settled up."

In July 1912 PE began surveys which led to extending the line a quarter-mile to the hotel itself and made available to tank cars the Arrowhead drinking water. A bottling works was established and ever since the "water bottles" as the tank cars are known have been a familiar sight in and around San Bernardino.

A quarry at 40th St. was served by a spur track 1.231 miles long, built in 1909 and removed in 1915.

Combs 1310 and 1318, the usual cars on this line in early days, were regarded by school kids as "cattle cars," according to Bill Garner. Mr. Garner recalls: "We boys would all ride in the baggage compartment, which was to the rear as a rule, while the girls rode in the passenger compartment. We would make the conductor mad by blowing the rear whistle, ringing the bell, signaling the motorman, or rocking the car. Another favorite stunt in the afternoon was to get torpedoes and place them on the track in front of the cars before they left for home. Sometimes we would get real mean and jerk the trolley off. I remember when the 1318 was the SBVT 100; we kids really thought she was some car."

1925 service: 5 roundtrips between Highland Ave. and Arrowhead, plus three to Severance and six to Crusher. (Effective 15 Jan 25)

25 March 1925 service: Four roundtrips from PE Station (SB) to Arrowhead, plus a roundtrip to Highland Ave. from Arrowhead.

10 July 1930 service: One roundtrip from PE Station to Arrowhead plus three roundtrips from Severance to PE Station and others from Highland Ave. to Crusher and Arrowhead.

1 Nov 1930 service: Five roundtrips from PE Station to Arrowhead plus a trip from Arrowhead to Highland Ave. and from Highland Ave. to Severance.

1 June 1931 service: 32 roundtrips daily between Crusher and Highland Ave.; one roundtrip daily from Arrowhead to Highland Ave. No through service--shuttle service only.

25 Nov 1931 service: Three roundtrips daily, SB-Arrowhead.

Bill Garner, an old San Bernardino hand, recalls the old days: "The kids of today do not know what they missed. We kids used to ride to school from all over the valley. The school cars came in off the Highland, Redlands and Colton lines and there would be quite a string of them moving up D St. in the morning and down in the afternoon. In 1922 traffic got so heavy that a siding about 350 yards long was built for them at 18th St. Special cars were run for high school plays, athletic events, etc."

RIVERSIDE - REDLANDS LINE

The Riverside-Redlands Line was a through-routing of two lines: San Bernardino-Redlands and San Bernardino-Riverside.

SAN BERNARDINO-REDLANDS LINE: Route: From PE Station, San Bernardino, via Third to Mill St., then via private way crossing Second, Hill St., Rippe-Cascoe, La Quinta, Crown Point to San Bernardino Ave.; thence east on SE Ave. to Orange St., and south on Orange Rd. to Citrus Ave.

History: Built by SEPT in 1902-1903 from city limits of Redlands to SE; opened on 3 March 03. Cars operated into Redlands thru truckage right agreement with Redlands Street Railway. On 6 June 03 these two companies merged. Huntington obtained control of SEPT on 10 June 07 and it became part of the PE system on 1 Sept 11. 1913 saw line rebuilt with 93-lb. rail.

SAN BERNARDINO-RIVERSIDE LINE: Route: From PE Station, San Bernardino, via private way south past new PE shops, Mill St., Urvilla Springs, Central Park to Colton; there it crossed the S.P. main line and continued south through Vivianas, Grand Terrace, West Highgrove, Palmyra to 1st & Colton St. in Riverside; then west on First and south on Main St. to 14th & Market.

History: Built from Riverside to county line in 1903, but unfinished due to fight between Huntington and Harrison until 1911; on 7 April 11 cars began running from Riverside to the county line (near Highgrove). Early in 123 PE began work from both ends: in San Bernardino the incentives to Colton paralleled the old SF track, going through Colton on 5th St., Archer construction cars worked north from Highgrove. Service between Riverside and Colton was opened on Saturday, 4 Oct 12, using cars 500-504. The installation of special wires to cross the eight tracks of SP and UP at Colton delayed through service until 13 Dec 13, when a celebration at the county line officially opened the line. On Sunday, 4 Jan 14, SP discontinued its passenger trains between Colton and San Berdooc and Colton and Riverside, giving all business to PE.

RIVERSIDE-REDLANDS LINE: The through-routing of these two lines was inevitable and occurred by August, 1916. The combined lines had a mileage of 19.60 and this distance was covered in one hour by the 400 Class cars. This through-routing, however, was more for the operating convenience of PE than for the benefit of through passengers; old timetables reveal long waits at San Bernardino, some being as long as 24 minutes (1924). Many trips required transfers at San Bernardino, due to through cars from L.A. continuing to Redlands.

As of 1927: Service was given on about a 40 minute headway at peak periods and hourly during midday. Seven crews of two men each were needed, two of which headquartered at Riverside and five at San Berdooc. One of these crews was assigned to handle the SP baggage connection at Colton from San Berdooc and Riverside. In addition there were seven crewmen working the main line to L.A. who continued on to Redlands and back. Four 400 Class cars were required, plus 1200s and baggage motors; one 400 was stored at Riverside and three at San Berdooc.

Best year was 1915, when 744,624 passengers were carried, requiring 340,658 car miles with \$112,605 returned in revenue. By 1920 these figures were respectively: 569,291---275,521---\$79,043. 1925: 473,418---327,554---\$99,899.

In Riverside the line operated through town on the double-track Main St. line, terminating at 14th St. On 20 July 36, the line was re-routed to use Market St. to PE Station.

Unfortunately, the most direct way from Redlands to Riverside was by highway, and competing bus lines took almost all through business. On a typical day in 1927, a traffic check showed but 22 through passengers riding PE cars! On 8 June 27, another check revealed but 11 thru passengers from Redlands to L.A. and 3 from L.A. to Redlands.

As an experiment, the line was broken in two on 1 April 28: a San Bernardino-Huntington line was established, also a San Bernardino-Redlands line. Apparently neither worked out as well as the through service, for the Riverside-Redlands line was re-routed to use Market St. to PE Station.

The busy SP crossing at Colton was protected by speed restriction on SP and by conductor flagging on PE. The crossing as of 1927 consisted of seven tracks, each of which had to be flagged.

As of 1 Feb 21, there were ten through trips daily; in addition there were ten trips which required transfer at San Bernardino.

As of 1 April 36, there were five through trips from Riverside to Redlands, and four from Redlands to Riverside; in addition, there were 12 trips each way between San Bernardino and Riverside---and four from San Bernardino to Redlands, five from Redlands to San Bernardino.

As of 30 July 36, there were four trips each way between San Bernardino and Riverside, plus a round trip from San Bernardino to Colton. No rail service to Redlands.

20 July 36 was the fateful day for through service on this line. On that date, the line between Sunkist and Redlands was abandoned and all passenger service between San Bernardino and Redlands was turned over to the subsidiary Motor Transit Lines. San Bernardino-Riverside service continued on a greatly reduced basis until 1 Feb 38 when 14, 100, was abandoned save for a franchise car which continued until 6 May 39.

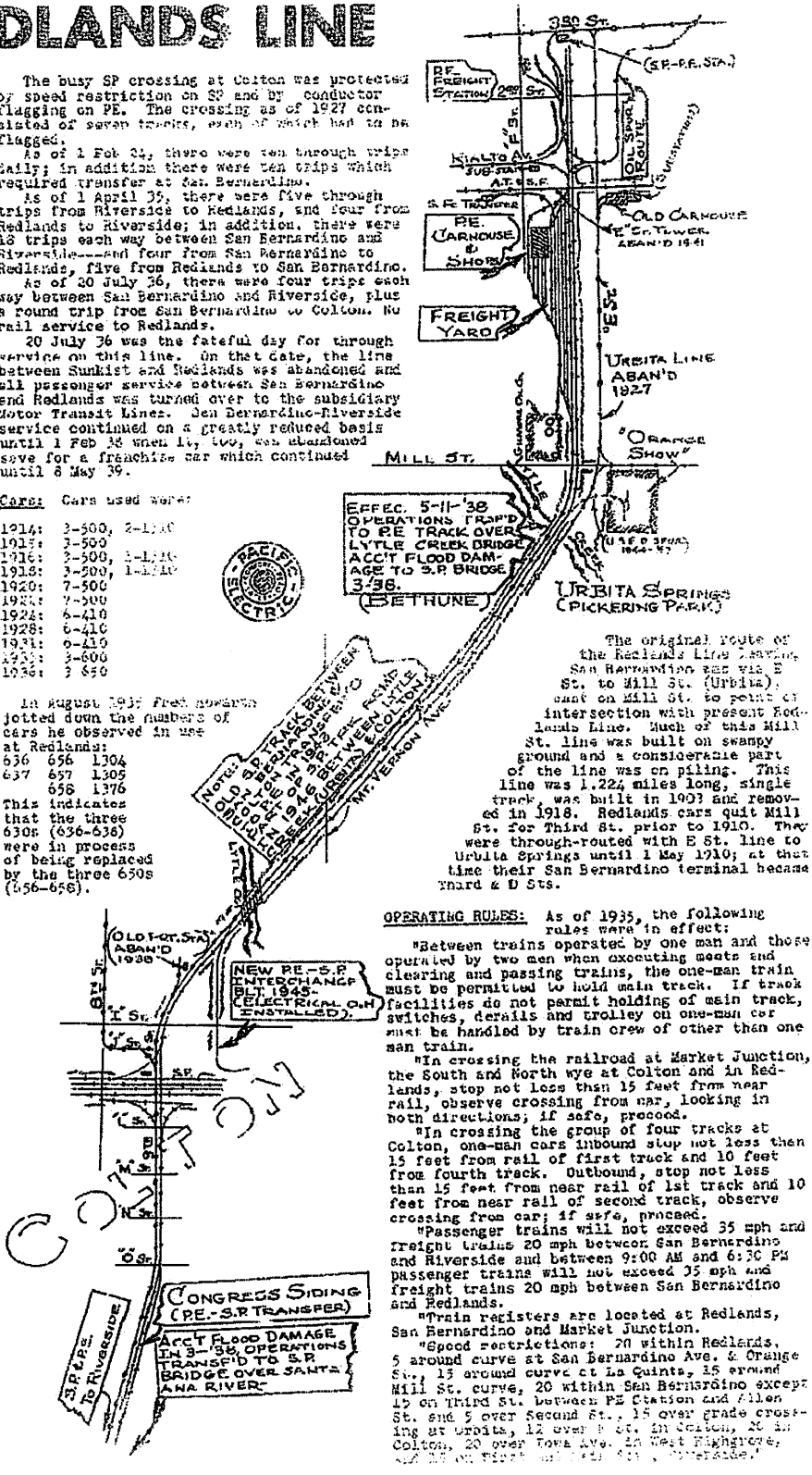
CARS: Cars used were:

1914:	3-500, 2-1100
1915:	3-500
1916:	2-500, 1-1100
1918:	3-500, 1-1100
1920:	7-500
1921:	7-500
1922:	6-410
1928:	6-410
1931:	6-410
1933:	2-600
1936:	3 650

In August 1936 fresh records jotted down the numbers of cars he observed in use at Redlands:

636	656	1304
637	657	1305
658	1376	

This indicates that the three 630s (636-638) were in process of being replaced by the three 650s (656-658).



OPERATING RULES: As of 1935, the following rules were in effect:

"Between trains operated by one man and those operated by two men when executing meets and clearing and passing trains, the one-man train must be permitted to hold main track. If track facilities do not permit holding of main track, switches, derails and trolley on one-man car must be handled by train crew of other than one man train.

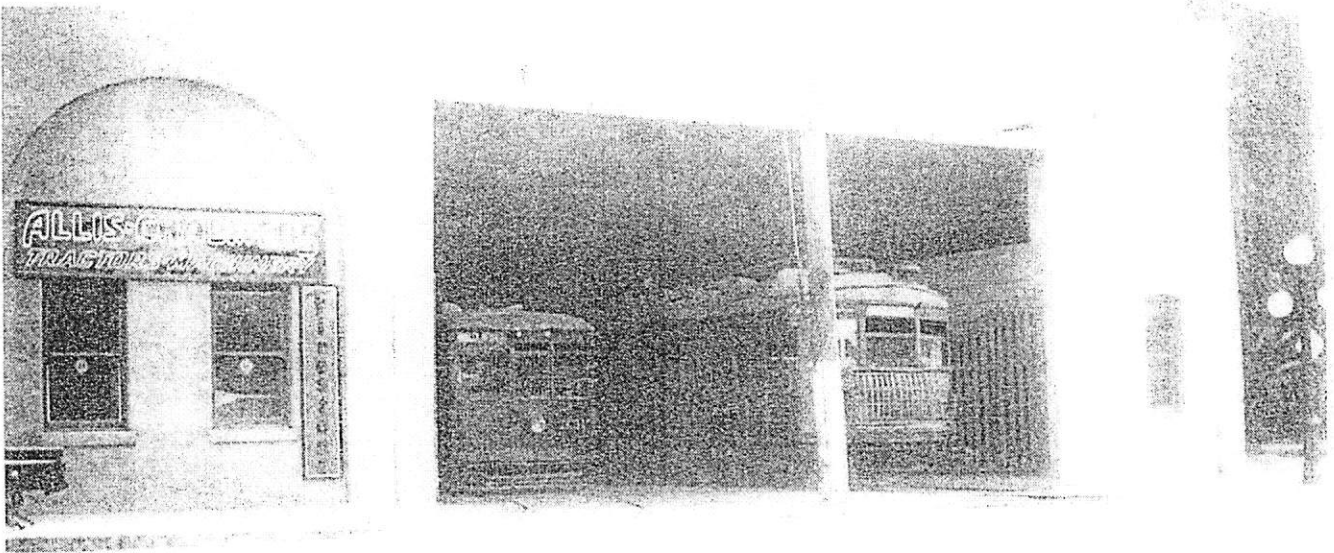
"In crossing the railroad at Market Junction, the South and North wye at Colton and in Redlands, stop not less than 15 feet from near rail, observe crossing from car, looking in both directions; if safe, proceed.

"In crossing the group of four tracks at Colton, one-man cars inbound stop not less than 15 feet from rail of first track and 10 feet from fourth track. Outbound, stop not less than 15 feet from near rail of 1st track and 10 feet from near rail of second track, observe crossing from car; if safe, proceed.

"Passenger trains will not exceed 35 mph and freight trains 20 mph between San Bernardino and Riverside and between 9:00 AM and 6:30 PM passenger trains will not exceed 35 mph and freight trains 20 mph between San Bernardino and Redlands.

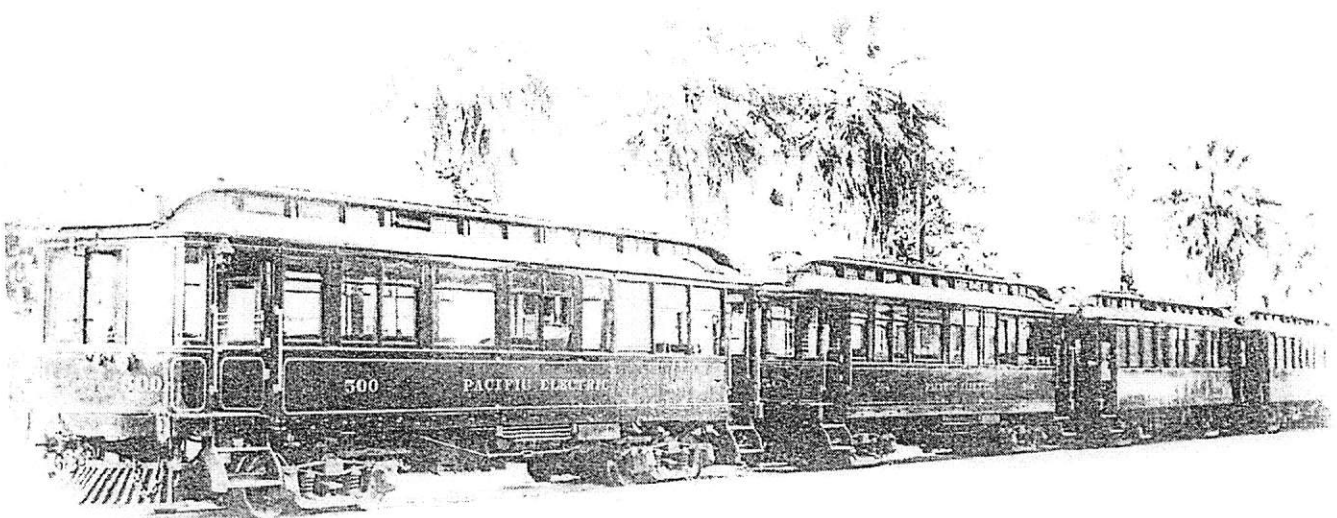
"Train registers are located at Redlands, San Bernardino and Market Junction.

"Speed restrictions: 20 within Redlands, 5 around curve at San Bernardino Ave. & Orange St., 15 around curve at La Quinta, 15 around Mill St. curve, 20 within San Bernardino except 15 on Third St. between PE Station and Allen St. and 5 over Second St., 15 over grade crossing at Urbita, 12 over 1st St. in Colton, 20 at Colton, 20 over Town Ave. in West Highgrove, 20 on 1st track and 15 on 2nd track, Riverside."



(Above) Seat no. 99 in Redlands was this car lounge, located on E. Citrus Ave. near Church St. Seen in this 1935 photo are 391 (left) of the Builey Heights Line, and a 300 (right) of the Riverside Redlands Line. (EP)

(Below) PE sent five Five Hundreds to Riverside on 7 October 1913 for service on the Riverside-San Bernardino-Redlands line. The cars were 500-504, and are shown here as they made their first public appearance in Riverside. Newspapers were loud in praise: "modern... highest class... multiple-unit... handsome..." (AB)



Redlands Local Lines

Local lines in Redlands were acquired in 1911 by PE from two companies: the San Bernardino Valley Traction Company, and the Redlands Central Railway. The SBVT's lines in Redlands came to it in June, 1903, when it and the Redlands Street Railway merged under the SBVT name. The Redlands Central operated but a single line, that on Citrus Ave; the RC was purchased by Mr. Huntington in 1908 at the same time he purchased the SBVT.

BROOKSIDE LINE: Route: From Orange & Citrus, west on Brookside Ave. to San Mateo.

History: Built 1908 by RC as extension of its Citrus Ave. line; was intended to go through to Riverside, but sale of RC stopped all extensions. Abandoned 10 June 26.

SMILEY HEIGHTS LINE: Route: From Orange & Citrus, south on Cajon to Cypress Ave., west on Cypress to Cedar St., west on Cedar to Canyon Crest Park, Smiley Heights.

History: Built 1899 by Redlands Street Railway to Smiley Heights, with car No. 1 making first run on 19 December 1899. In 1900, extended to Terracina, opening on 6 November 1906. Latter connection to Terracina removed 1920 (see Olive Ave. line). Last car to Smiley Heights ran on 20 July 1936.

Operation: As of 1 Feb 24, half-hourly service was provided from 5:35 AM to 11:05 AM, then from 11:50 AM to 10:20 PM, then 11:00 PM. The 72 trips daily required two crews of one operator each, with headquarters at Redlands car house. A single Birney was used. The line was 2.929 miles long and was single-track; 0.566 miles on private way, remainder in city streets.

From 1 July 26 to 30 June 27 the line carried 77,042 passengers, resulting in a revenue of \$7,351; operating expense was estimated to be \$7,100 and taxes \$300, leaving a loss of about \$250. In 1922 the line carried 95,950 passengers.

OLIVE AVE. LINE: Route: From Orange & Citrus, south on Cajon to Olive Ave., thence west on Olive Ave. and Laurel St. to Terracina. Like all Redlands lines, it was single track. 2.030 miles long, all in city streets.

History: Built 1903 by SBVT to Bellevue & Laurel; opened in November 1903. Extended along Laurel St. to Terracina in 1904, opening to Terracina in September 1904. To get the bulk of the Terracina traffic, being more direct than the Smiley Heights route. Abandoned 20 December 1922; rails removed in 1924.

COUNTRY CLUB LINE: Route: From Orange & Citrus, south on Cajon St. to Country Club. 2.813 miles, all single-track; 1.213 m. on private way, 1.395 m. in city streets.

History: Built by RSPY in 1899 and 1901. Abandoned 23 May 26, and rails removed at once beyond Cajon & Cypress.

Operation: As of 1 Feb 24, car left Orange & Citrus at 6:25 AM and hourly for Country Club until 5:08 PM, then 6:40, 7:50, 8:50, 9:50 and 11:00. Hourly service as far as Elizabeth St. (five stops south of Cajon & Garden) left at 58 minutes after the hour until 9:58; then 12:08 PM and hourly until 5:02. Running time: to Country Club, 16 minutes; to Elizabeth St., 13 minutes.

CITRUS AVE. LINE: Route: From Citrus Ave. & Wabash St., west on Citrus to Orange. 0.552 m., single track.

History: Built by RC 1908. Abandoned May 26.

Operation: As of 1 Feb 24, car left Orange & Citrus at 6:05 AM and every thirty minutes until 11:05 AM; then 11:50 AM and every thirty minutes until 5:50 PM; then 6:20 and every hour until 10:20 PM. Car left Wabash on average every 15 minutes later.

REMARKS: Local rail service in Redlands was evidently a losing proposition as far back as 1910. "One wishes that the SBVT could furnish Redlands with better service...it must be borne in mind, however, that the Redlands service does not pay the company... All things considered, Redlands still a splendid trolley service... From the Redlands 'Harlem' for 15 Feb 24.

Patrons of the Smiley Heights, Country Club and Olive Ave. lines got a pleasant surprise on June 20, 1911. With no advance announcement, the first red PE cars--114 and 115--appeared in Redlands and entered service at once, with 115 as a large SBVT car which also began running in Redlands local service. On July 1, 1911, the Redlands "Review" enthusiastically welcomed the "big" cars: "PE cars are here! To take the place of the dinky little cars that have been targets for much criticism. The three old timers that have been in use for many years (PE 80-82) have been relegated to the shed, where it is hoped they will be allowed to give up the ghost peacefully."

PE's car house in Redlands was located on E. Citrus near Church St. It was a rather large building and contained substation No. 26. This structure was erected by the RC and was that company's combined car house, substation and shops, with some office space as well. PE rebuilt the car house in 1922.

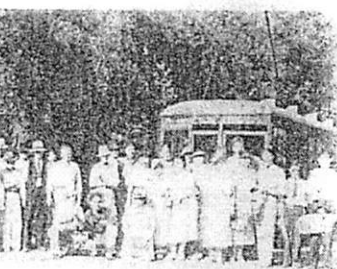
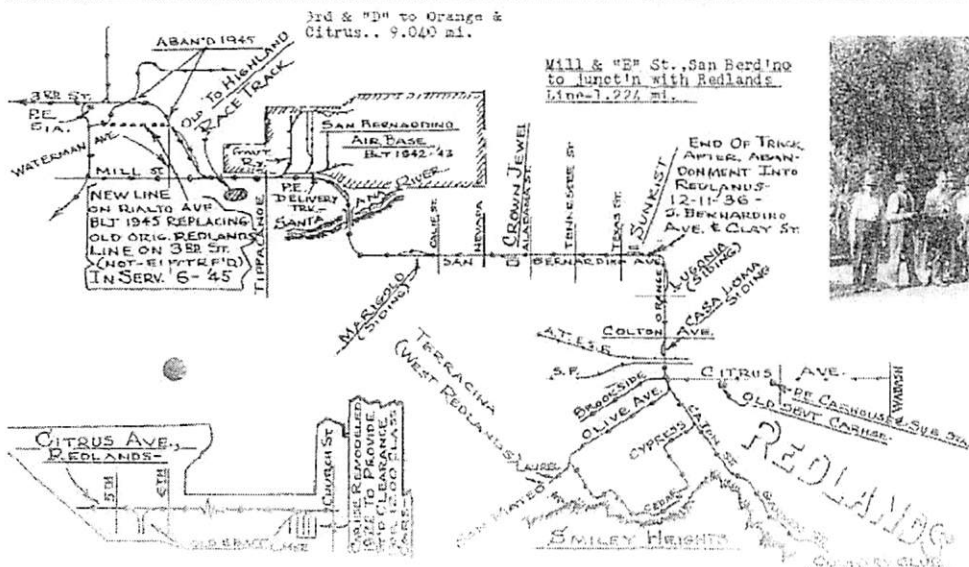
The Citrus Ave. line served not only Colton Park and Redlands University, but at Church St. it passed the Redlands High School. The high school was built in 1910 and building material was delivered direct to the site via SBVT flat cars and a special spur track into the grounds.

An electric railway from Redlands into the Lucerne Valley via the escape, Oak Glen and Escondido to San Jacinto was started in 1908; it completed a mile of track on Church St. The project for the winter. Paul Shoup (head of PE) favored the proposed route in 1911 but evidently decided against the ambitious project for the time being. In September 1917 PE again showed interest in building as far as Lucerne and made a survey of the route in March 1918; in June of that year PE announced it would build to Lucerne "as soon as possible." Then World War I and auto intervened.

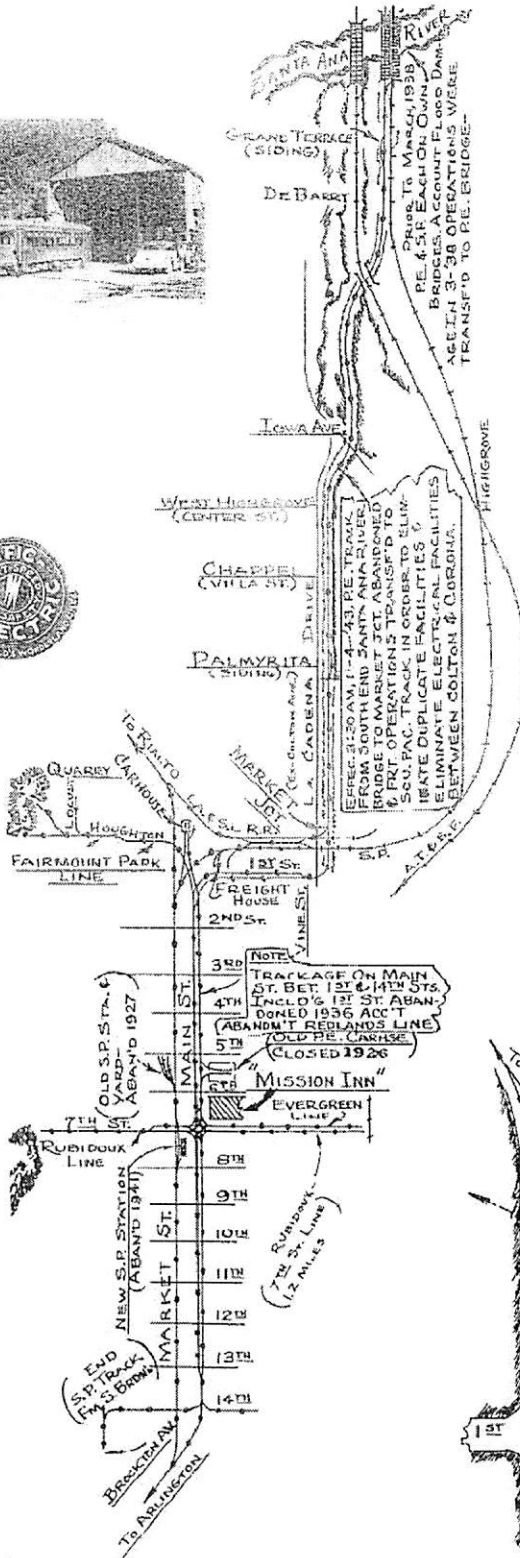
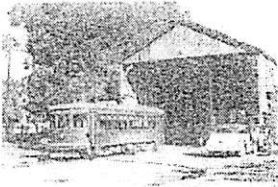
Four Birneys of the 350 Class took over all local service in Redlands in 1923; from then until final abandonment in 1926, Redlands had nothing but these "bootie cars." The uncertainty was relieved, of course, by the big 1200s in through service to Los Angeles, the suburban cars (400s and 600s) to San Bernardino and Riverside, the periodic visits of the Orange Empire car, usually 1028, plus assorted box motors and electric locomotives.

The Triangle, formed in the heart of Redlands' business district by Orange and Cajon Sts. and Citrus Ave., was always the main transfer point. A shelter was erected in the tiny park for the comfort of waiting passengers.

SBVT contracted with the Salt Lake Line to handle that railroad's express matter (American Express Company) between Colton, San Bernardino and Redlands. Express packages were carried on regular cars and loaded and unloaded at the Triangle. By the end of 1911, so many complaints had been received that SBVT-PE was ordered to load and unload express at its car house, and to place a 1300 Class Combo car on those runs which handled much express.



(Above) Sunday, 20 July 1936, was last day of service for the Smiley Heights Line. This group of well-wishers was on hand for the last ride. Here we see the last car (probably 311) as it posed at the Heights. (EL)



Riverside Local Lines

PE operated three strictly local car lines in Riverside; all of these lines were obtained in the 1911 Great Merger from the Riverside & Arlington Railway. The R&A was purchased by Henry E. Huntington in 1903 and was run by him in cooperation with Mr. Frank Miller, builder and owner of Riverside's famed Mission Inn.

A two-track car house with substation was erected by R&A about 1909 on Main between 5th & 6th Sts. It was used by PE until 1926, when operations center was shifted to the company's reservation at 1st & Market, where also was located substation No. 27. Major car repairs were performed at San Bernardino. PE records show a grand union at 7th & Main St. but photos and veterans' recollections seem to disprove it.

BROCKTON AVE. LINE: Route: From 6th & Main via Main, 14th, Brockton Ave. to Jurupa Ave. (2.03 Miles)

History: Built by R&A in 1893. Modern line established when the Riverside-Arlington line was rerouted to Magnolia on 20 October 1916; soon thereafter through-routed with Fairmount Park. On 21 April 19, abandoned south of Brockton & Jurupa Aves. On 1 May 19, separated from Fairmount line and terminated at Main & 1st Sts. As of 1 Oct 24, through-routed again with Fairmount, and on 1 March 25, separated from Fairmount and terminated at 7th & Main. PE asked for permission to abandon this line in 1925 but was refused. Abandoned 1 June 26.

Operation: As of 1927, a single one-man Birney provided all the service. Headway was 30 minutes, beginning at 6:15 AM, ending at 11:30 PM with 70 trips. In 1926, 153,298 passengers were carried, 57,730 car miles, \$9,916 revenue.

Brockton Ave. line was last local line to operate in Riverside, outlasting the others because it consistently showed a profit, albeit a small one. It was finally abandoned due to poor condition of track.

FAIRMOUNT PARK-VICTORIA HILL LINE: Route: From Fairmount Park south on Locust, east on Houghton Ave., south on Main St., east on 14th St., south on Line St., south on Olivewood St., east on Bridge St., and south on Victoria Ave. to Victoria Club House (1900 block).

History: Built by R&A in 1900. Fairmount through-routed with Brockton Ave. in 1914. On 1 May 19, Fairmount separated from Brockton and through-routed with Victoria Hill. On 1 Oct 24, also through-routed with Brockton Ave. Abandoned 1 March 25.

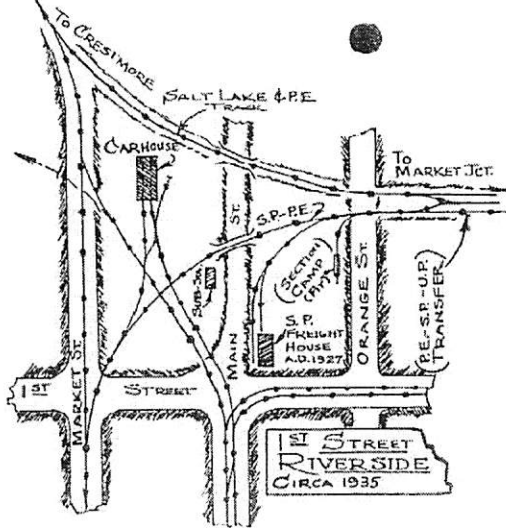
Operation: As of 1 Feb 24, car left Fairmount for Victoria every 20 minutes from 6:40 AM to 7:20 PM, then every forty minutes until 11:20 PM. 7th & Main was 5 minutes from Fairmount 12 minutes from Victoria Hill. Service by Birneys.

RUBIDOUX LINE: Route: From AT&SF Depot and Salt Lake Station (7th & Vine) via 7th St., crossing Main, Market, Chestnut, Walnut, Locust, Cedar, Pine and Popper Sts. to Rubidoux Drive (end of line).

History: built by Huntington (R&A) in 1903. Abandoned 7 July 24.

Operation: Car (100 Class) left Rubidoux 6:15 AM and every 20 minutes until 11:15 PM (as of 1 Feb 24).

Rubidoux line was the cross-town line in Riverside, and provided connections to the two steam railroad stations at one end and the exclusive Rubidoux section at the other.



At left is detail map of area of SP-PE Reservation at 1st & Market. All lines shown were electrified, with dates of electrification as follows:

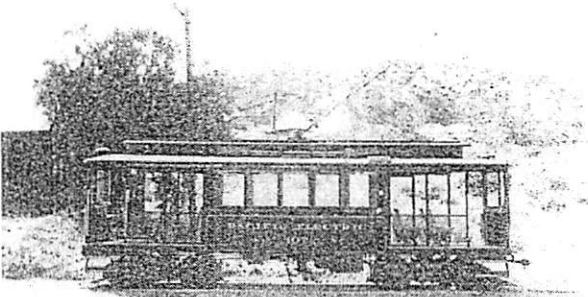
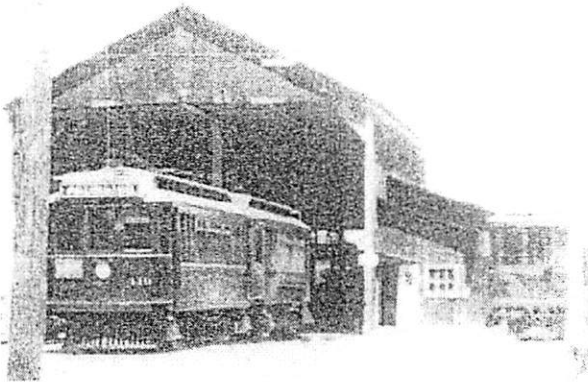
- 1st, Main-Colton Ave.: 1907^a
- 1st-Houghton: 1900^b
- 1st to Market: 1908^c
- Crestmore Line-
Market Jct.: 1916
- SP Line, 14th St. to
1st St.: 1915
- SP Line, Market St.-
Market Jct.: 1919^d

^a Line built by San Bernardino Interurban Railway Co. as part of its projected SB-Riverside Line. See Riverside-Redlands Line.

^b Built by R&A 1900 as part of Houghton Ave.-Fairmount Park Line.

^c Built 1908 as part of the Crescent City Ry. line to Crestmore (see Riv-Bialto).

^d To permit Riv-Redlands interurban cars to use Market Street.



(Top) This wooden shed, having a capacity of four cars, served as PE's operations center in Riverside after 1907. The above photo, taken in 1925, shows suburban cars used on the Riverside-Arlington and Riverside-Redlands lines, with a Birney trolley visible inside the barn.

(Below) Car 107, at Rubidoux about 1913, was one of five California cars which ran in Riverside from 1903 until 1914, when three were sold; the two remaining were in Riverside service off and on till 1923.

CARS: PE Car Assignment Records show the following car types and units of each assigned to Riverside local lines:

Year	Cars Assigned	Year	Cars Assigned	Year	Cars Used
1911	2-409, 1-476, 6-100, 1-50	1920	1-100, 3-320, 4-480	1931	3-320, 1-400, 4-480
1913	3-100, 5-200, 1-480	1922	1-10, 1-100, 5-320, 1-400, 4-480	1933	1-150, 2-320, 1-480, 3-600
1914	1-10, 1-100, 5-200, 3-480	1924	1-01, 4-320, 1-400, 4-480	1936	1-150, 3-600
1915	4-10, 2-100, 3-200, 1-470, 4-480	1925	1-1310, 3-320, 4-480, 1-1310	1941	1-150, 2-100
1916	1-10, 3-100, 2-200, 4-480, 1-1310	1928	3-320, 1-470, 4-480		
1918	2-350, 4-480, 1-1310	1929	3-320, 1-466, 4-480		

Specifications and histories of above cars are to be found in INTERURBANS' Special 13.

1911 Notes: The two 400s were 400 and 409; 476 hauled trailer 57 to and from Crestmore, meeting shift changes at cement plant; the six 100s were 104-109.

1913 Notes: Car 480 served Crestmore run; the 200s helped.

1914 Notes: The 10-Class car was a single-truck open car; the three 480s were 486-489.

1915 Notes: The one 470 was PR 474---was L170 210; it served at the discretion of Mr. Frank Miller of the Mission Inn and bore the name "Glenwood."

1916 Notes: The 1310 Class car was the 1311.

1918 Notes: The 350s were Birneys.

1924 Notes: The 01 Class car was the 010, ex-"Mermaid" and renumbered 1302 two years later.

1929 Notes: Car 466 replaced 474; 466 came from Fresno.

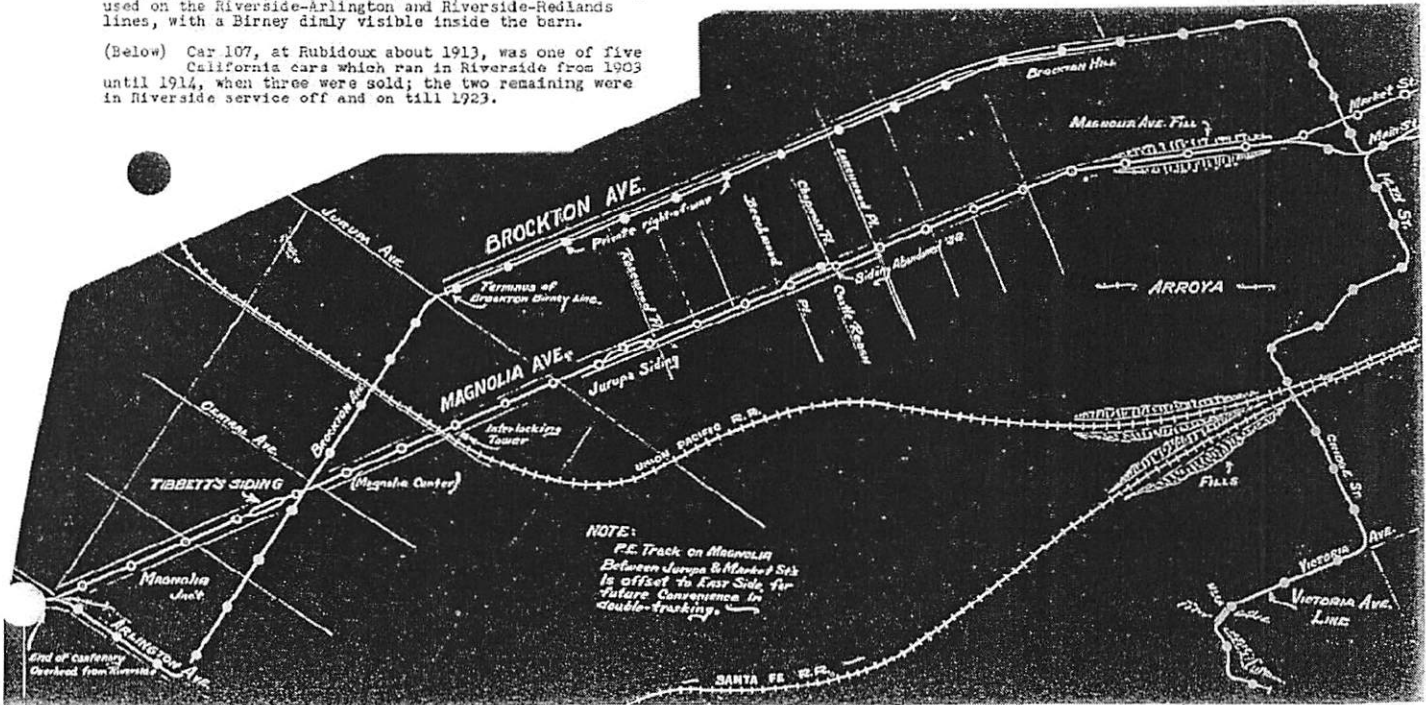
1933 Notes: Car 151, a double-truck Birney, also came to PE from Fresno Traction. Three 600s: 636, 637, 638---replaced the 480s on suburban runs.

1936 Notes: Three 650s---656, 657, 658---replaced the 600s which were returned to Torrance when high mileage accumulated.

1941 Notes: The sale of PE's local lines in Long Beach released additional 100 Class cars for use in Riverside and San Bernardino.

1942 Notes: Only four city cars remained in Riverside, all used to Arlington: 106, 111, 112, 114.

This map, drawn by Jack Whitteyer, shows in detail the PE rail lines from Magnolia Ave. & Arlington Ave. (far left) to Main & 14th Sts. (far right). The construction of the great fill over the arroyo in 1912 (PE dirt trains played the major role) enabled new Magnolia Ave. to be opened. In 1914 PE completed its new line on Magnolia from 14th to Arlington Ave. and Riverside-Arlington cars were thereupon sent over the more direct route, leaving the old Brockton Ave. route to wither. In 1919, Brockton Ave. service was cut back to Jurupa Ave. and track south of that point was abandoned and removed.



RIVERSIDE - CORONA LINE

This line served both as an interurban service for travel between Riverside and Arlington and Corona, and also to a not inconsiderable degree as a local line serving the residential district of Riverside south of the business district. Between Riverside and Arlington, tracks were located in the center of Magnolia Ave., a portion of the distance being paved and the rest open track. From Arlington to Corona, the major portion of the line was an private way except for a small portion on paved streets within the two cities. The entire line was single track except on Main St., Riverside, where it was double-tracked between 1st and 14th Sts. 14.53 miles.

ROUTE: From Riverside (6th & Main Sts.) south on Main to 14th, then continued south on Magnolia Ave. and private way through Arlington to Corona where it ran south on 3rd St. to Merrill.

HISTORY: Built to Arlington 1895 by R&A as horse car line. Rebuilt and electrified by R&A in 1899, with first electric car for Arlington leaving Riverside at 9:00 AM 11 April 1899. Rerouted from Brockton Ave. to New Magnolia Ave. on 20 October 1914. Extension to Corona placed in service on 17 February 1915. On 7 July 1924, separated: Riverside to Arlington and Arlington to Corona. On 1 April 1928 through-routed with Riverside-San Bernardino Line; 15 June 1928 again became Riverside-Arlington Line. Arlington-Corona service was abandoned on 11 August 1931. Rerouted from Main St. to Market St. on 2 Nov 31. Riverside-Arlington service abandoned on 10 January 1943. Freight service continues, although dieselized in 1943.

OPERATION: As of 1927 a thirty-minute service between Riverside and Arlington was provided from 6:00 AM to 11:30 PM; between Arlington and Corona a two hour headway was maintained throughout the day with extra trips morning and evening. Distances and running times: Riverside-Arlington, 6.52 miles and 22 minutes; Arlington-Corona, 7.91 miles and 15 minutes. Six crews were needed; two crews (one man each) with headquarters at Arlington were assigned to the Riverside-Corona run, and four crews (two men each) were assigned to the Riverside-Arlington run. 70 trips daily were made between Riverside and Arlington, and 20 daily between Arlington and Corona. 572,227 passengers rode the line in 1914; 457,762 in 1926. Passenger revenue for 1926 was \$40,300; estimated cost of operation was \$47,500 plus \$2,800 in taxes--leaving an estimated loss of \$10,400.

EQUIPMENT: Riverside-Arlington had moderately large cars throughout its life. From 1915 to 1931, cars of the 430 class were used; 500s replaced them from 1932 to 1940; 100s thereafter. Arlington-Corona had 430s until 7 July 24, then a 3irney.

MISCELLANY: Power (500 v.) provided by Substation No. 27 at Riverside and Substation No. 48 at Corona.

SP track on Market St. from 1st to 14th was electrified in 1915, and the SP Depot at 7th & Market was turned over to PE. SP steam engine maintenance facilities and yard at 5th & Market were also given over to PE. SP abandoned passenger service between Riverside and Colton on 4 Jan 14, turning over this business to PE.

The old Huntington dream to connect his Whittier line to the R&A system by building through the Santa Ana Canyon from Stern to Arlington (about 1 1/2 miles) was later never to be accomplished. Even after the 1911 merger, SP-PE officials made numerous field trips to the Canyon; two alternative routes were surveyed, one on either side of the river, with the route on the west side favored (this would have crossed the Santa Fe Railway at Prado). This 1911 plan would have given the Stern-Arlington construction precedence over Upland San Bernardino--giving eventually a belt line to and from L.A. via all important cities in the Orange Empire. This was Huntington's 1903 plan except for the elimination of his branches to San Diego and Santa Ana.

Deterioration of the double-track line on Main St. between 1st and 14th Sts. caused Riverside-Arlington service to be rerouted via Market St. in 1936; Main St. rails were removed that year.

Principal points of interest passed on this line were: Riverside High School (14th & Magnolia), Woodcraft Home (Adams & Magnolia), Sherman Indian School (Magnolia & Jackson), County Hospital in Arlington, and the La Sierra Canning Company, at Tyler.

There were three crossings of steam railroads at grade: MP 2.24 (U.P.), MP 10.10 (AT&SF) and MP 12.59 (AT&SF). The U.P. crossing was protected by the Magnolia Interlocking Plant (time release); May Tower governed the Corona crossing of the AT&SF main line; AT&SF Elsinore branch was flagged.

PE timetables listed as "outbound" trains from Corona to Riverside; "inbound" from Riverside to Corona. All trains were first class, and inbound trains were superior by direction to outbound trains of the same class.

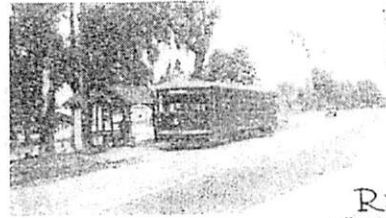
The large trees growing along Magnolia Ave. gave the line certain distinction and beauty, but were dangerous to train crews; rules prohibited trainmen riding on car roofs between Magnolia Station and Tyler.

In May 1924, the 430s made the Arlington-Corona run in 16 minutes; two months later a Birney replaced them and running time became 23 minutes.

Only two years before it abandoned passenger service in Corona, PE spent \$17,000 rebuilding track in that town. In 1929, track was reconstructed on Third St. between Grand and Merrill.

After removal of the Riverside Station in 1940, Riverside-Arlington cars terminated at 1st & Market.

(Right) 106 at SP-PE Station 70 Riverside, 1940. The building was razed in July, 1940.

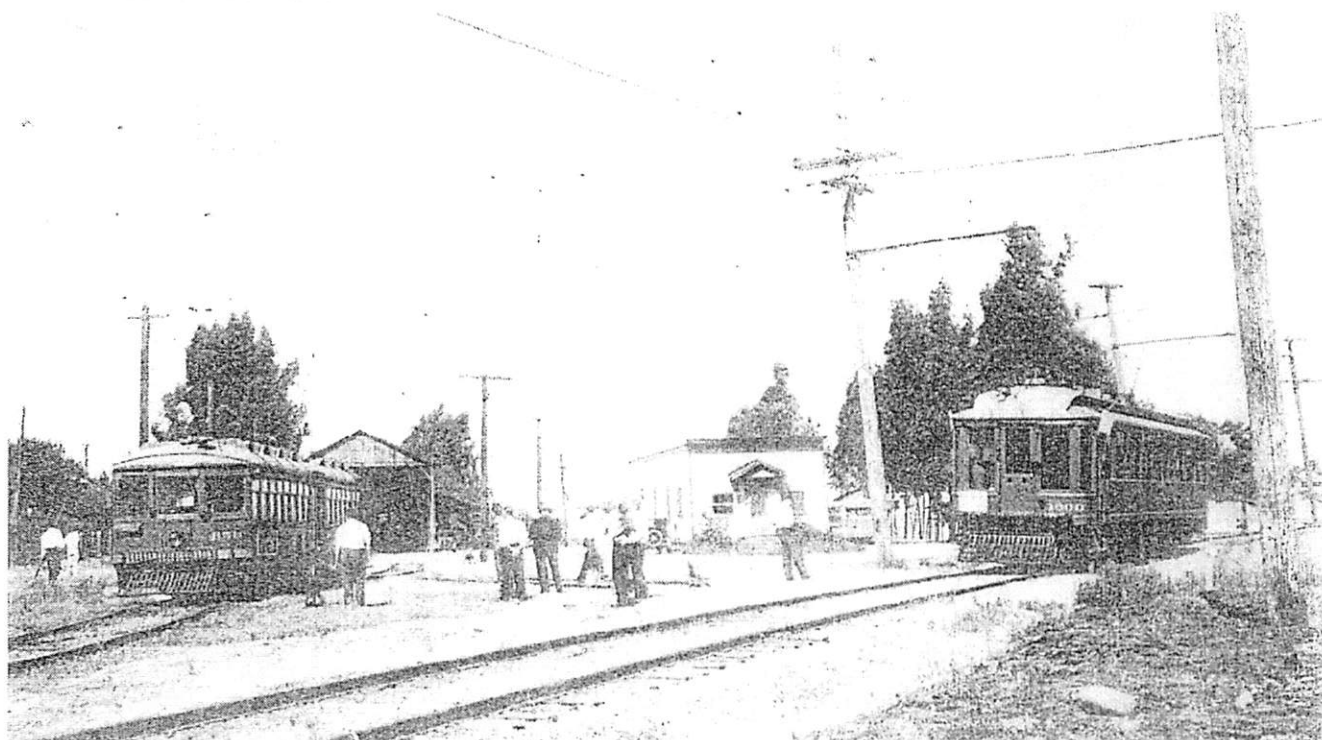


(Above) 100 at end of line, Harrison St. in Arlington, 1938.



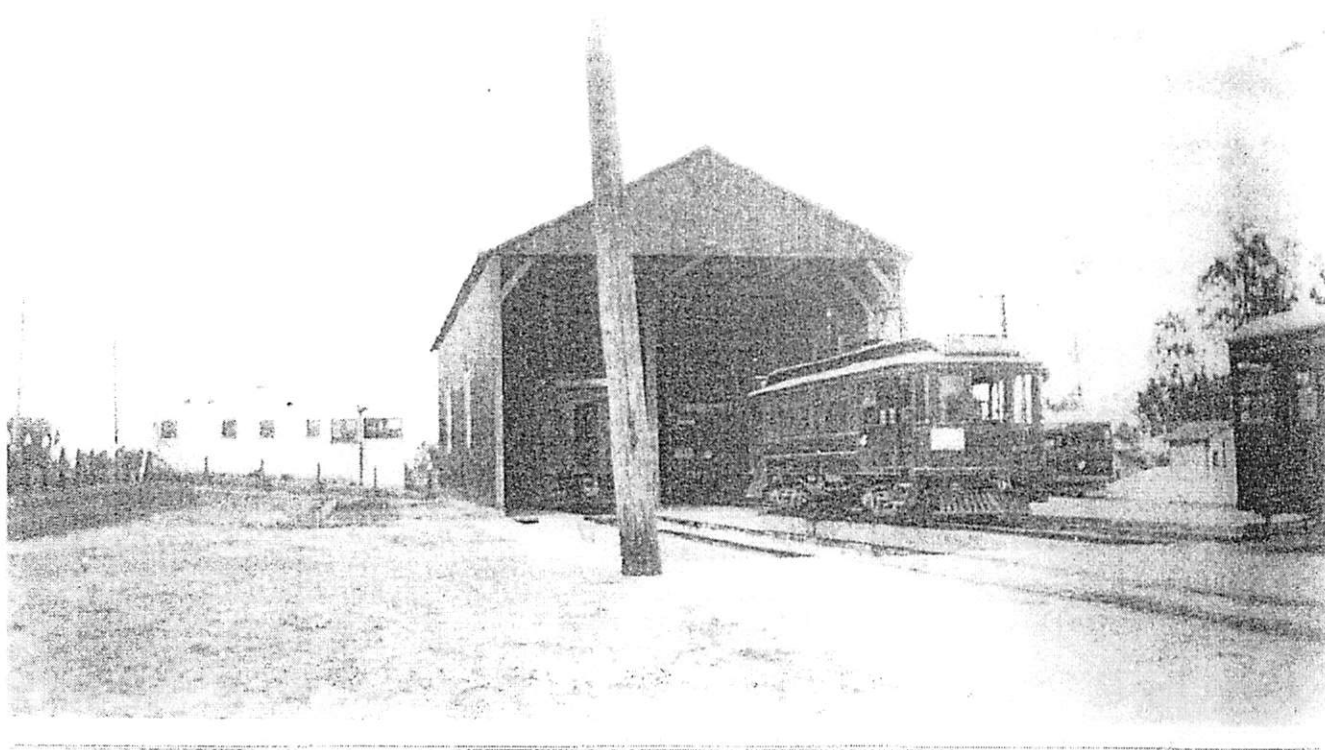
(Above) An excursion sponsored by Railroads posters in 1938 took car 1000 to Corona Station. (RM)

CORONA
 REROUTED TO
 CORONA STATION
 CONNECTED TO
 SANTA ANA
 NEVER CONSIDERED



(Above) On 11 September 1936, Railroad Boosters took Officers' Car 1000 to Corona from L.A. Here the 1000 enters Riverside via Market Junction. To left is car 656, while in rear is the Riverside car house. (REM)

(Below) A closer view of the Riverside car house, dating from approximately 1925. Car 497 is in center, a 1200 and another 490 are in barn, and two Birneys are partly visible at right.



CRESTMORE LINE														OUTBOUND Read Down														TIME TABLE No. 12. (Replaces Time Table No. 11.) Effective 1:30 A. M. Sunday, May 18, 1936.														INBOUND Read Up													
														STATIONS																																									
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RIVERSIDE - RIALTO LINE

The Crestmore Line (Riverside-Rialto) was unique in that it was not owned by PE-U.P. owned it in modern times—but nevertheless it was a vital link in PE's rail empire. Its 9.53 miles cut off the corner for trains to and from Los Angeles, saving Riversiders about 5.5 miles of extra travel had they been forced to journey on PE's own rails via Colton and San Bernardino. Local service was provided on the Crestmore Line for many years, chiefly to serve the large Riverside Portland Cement Company's plant near Crestmore. Interurbans provided nearly all the through service, doing local work en route. Under the agreement made by PE and U.P., all passenger service on this line was provided by PE. While freight trains were operated by both railroads—PE using electric locomotives, U.P. using steam.

Route: From Rialto PE Station, south on Riverside Ave. and private way; crossed AT&SF's main line at MP 0.30, and U.P.'s main line at MP 3.40; then came Bloomington (MP 1.50), Cement Plant (MP 5.90), Alvarado (MP 7.92), Alamo (MP 8.45), Hancock (MP 8.89), and Riverside PE Station (MP 9.53). Entire route was single track.

History: In 1907 the Riverside Portland Cement Company built a large cement plant near Crestmore and to provide transportation for employees built a standard gauge railroad to Riverside. On 28 February 1908, this line (known as "The Crescent City Railway Company") entered into an agreement with the RRA by which the line was electrified and RRA provided express and passenger service over it. The first electric car ran over to line on 1 May 1908. On 20 May 1911, the line was opened to Bloomington, and the final extension to Rialto opened on 24 March 1914. PE began through service to L.A. over this line on 15 March 1915. All service was abandoned on 9 June 1940 (franchise car to 13 Nov.).

Operation: Service opened between Rialto and Riverside with 90 min. headway. By 1921 we had 12 round trips daily plus three trippers each way between Riverside and Cement Plant. In 1924, 1926, 1928, 1929 and 1930 the dozen round trips daily prevailed as shown in the PE employees' timetables, but the Cement Plant trippers dropped to two in March 1930 and to one in November 1930. The 9 Oct 32 timetable shows but nine through trips and no trippers; this was increased to ten through trips on 15 April 34, but was cut back to nine the following 1 April. This continued until 11 April 35 when service suffered a cut to but five round trips; this was cut to four on 3 May 35, and to one on 9 June 40. This data covers both interurban cars and local cars.

The following data covers only local cars: The best year for the line was 1914, when 360,694 passengers were carried, requiring 101,863 car miles with revenue of \$16,698. In 1920 these figures became 123,728—\$7,927—\$14,424 respectively. In 1926 they dropped to 39,560—15,350—\$3,664 respectively. The average number of local passengers carried daily in 1926 was 108. For 1926, cost of operation was estimated to be \$1,066 and taxes were \$175, leaving a net income of but \$425.

In 1926, local cars made one round trip daily between Riverside and Rialto and three round trips between Riverside and Cement Plant. The former was a franchise trip, and the latter cared for workers meeting shift changes. One 400 Class car was required.

Miscellaneous: Trolley voltage on this line was 600, supplied by substation No. 27 at Riverside; substation No. 47 at Rialto put out 1200 volts only for the main line. As a result, weak power was a serious problem. From Rialto to Riverside was downgrade and power shortage was not a factor; in the reverse direction, the drop in voltage due to the operation of the heavy 1200 Class cars affected both the speed of the cars and illumination inside them to a marked degree. This condition was made even worse when PE freight trains were on the line. The solution was to change to 1200 volts, but this would have required rebuilding of overhead, installing a 1200-volt motor generator set at Riverside, and eliminating local cars from the line—and due to the crowded condition of the Riverside substation, a new building would have been required. This would have totaled \$100,000—so it was not done.

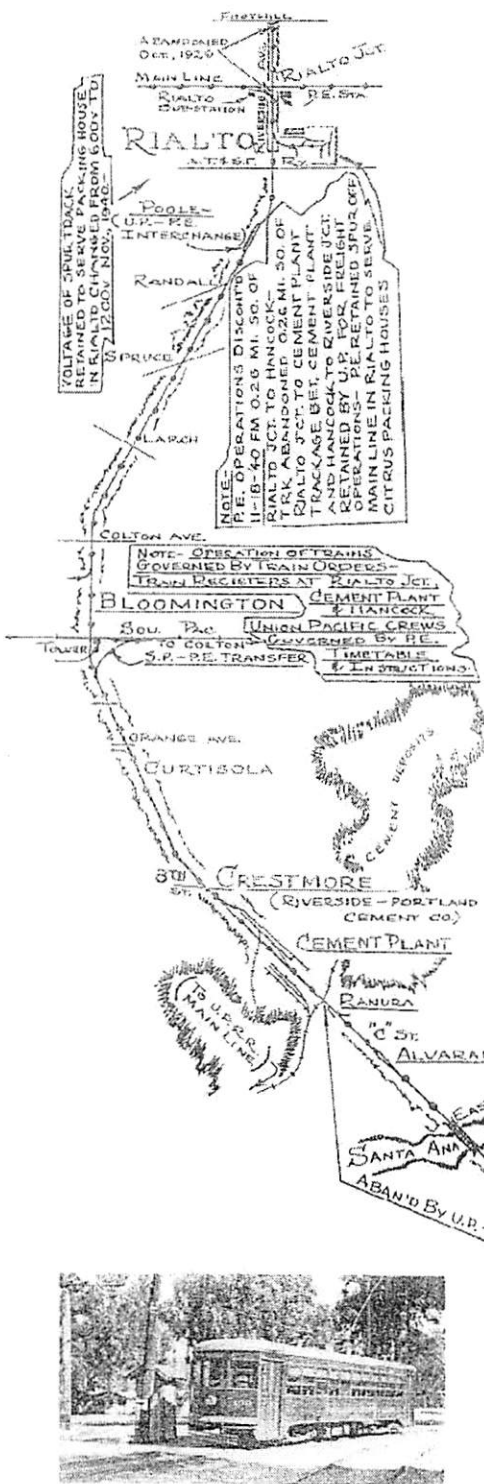
Most glamorous trains on this line were "Orange Empire," "Citrus Belt Limited" and "Angel City Limited." As of 1921, all were run daily, with the first two operating outbound from L.A. and "ACL" operating inbound. "OEB" left Rialto at 10:38 AM, arriving Riverside 11:00; "CBL" left Rialto 6:11 PM, arrived Riverside 6:30 PM; "ACL" departed from Riverside at 7:30 AM and coupled onto the L.A. train at Rialto at 7:54 AM. Rialto Jct. was a busy place down through the years; there, in front of the restaurant and housing the substation, Riverside cars were coupled and uncoupled from San Bernardino-Redlands cars. The usual train from L.A. was two cars; the second was cut off to run to Riverside. Returning, the Riverside car coupled to the San Bernardino car for the run into L.A. The motorman making the tie-ons and cut-offs was responsible for registering and checking the train register; he also took train orders when issued. All trains were first class; inbound (Riverside to Rialto) were superior by direction to outbound trains of same class.

To properly celebrate the opening of this line, a great fête was held at White Park, Riverside, on 24 March 14. A band concert, a baseball game between the Chicago White Sox and the Los Angeles angels, speeches, a parade, and an organ recital at the Mission Inn made it a day worth remembering.

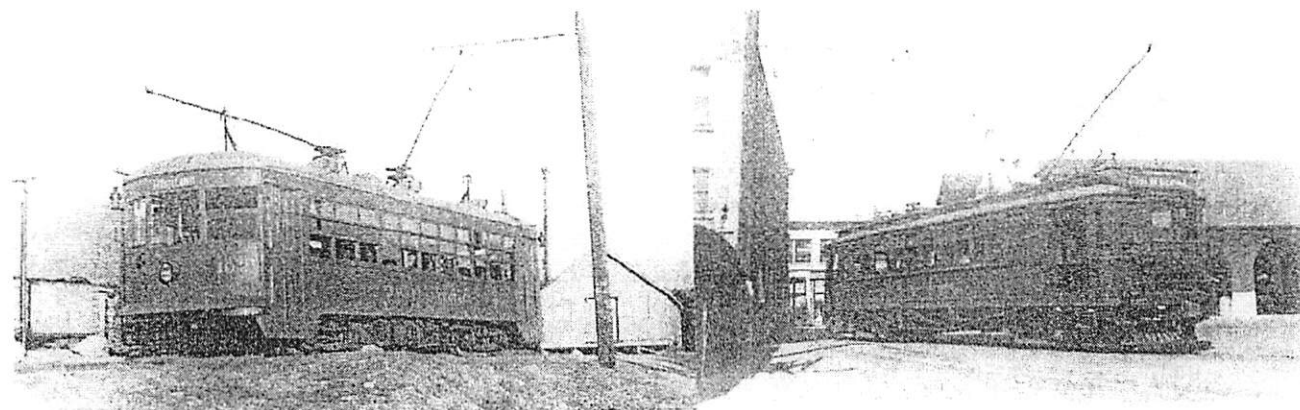
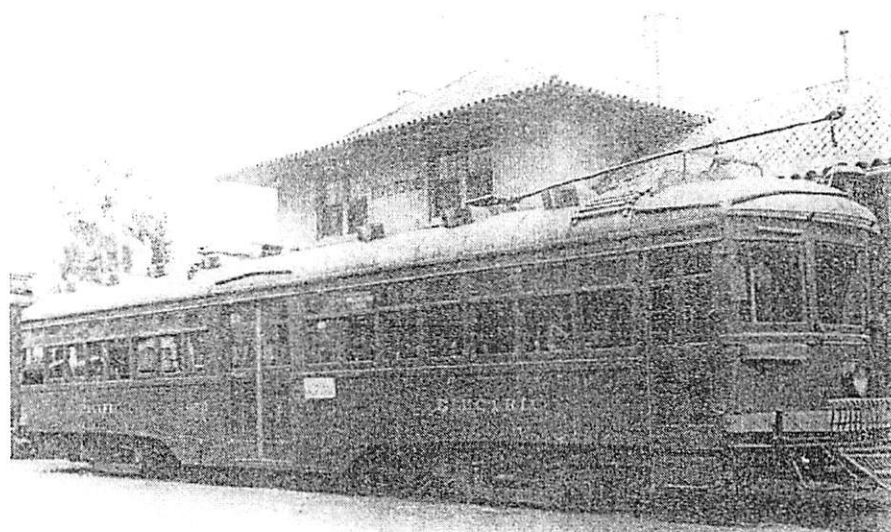
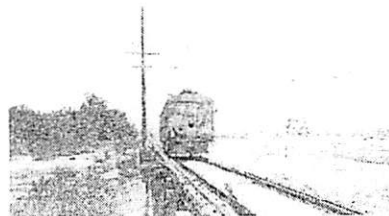
Speed restrictions as of 1924 were: 20 mph within Riverside, 25 mph on the Santa Ana River bridge, 12 mph through yard limits Cement Plant, 15 mph over Colton Ave., Bloomington, and 20 mph within Rialto.

The Crescent City Railway Company was organized by a group of officials of the Riverside Portland Cement Company in order to provide adequate transportation for their employees. Mr. M. A. Hinsaw, CCR president, denied more than once that he was a PE figurehead. The eventual sale of the company to the U.P. was one of the few times PE-SP ever played second fiddle. The Fontana Development Company offered CCR free right of way if it would build there instead of to Rialto from Bloomington. The map shows all too clearly the advantage of the Fontana route.

From the Colton "Courier" for 4 Oct 12: "The right of way between Bloomington and Rialto is all secured. Riverside contributed \$4,000 to the fund which means that Riverside expects to get the trade of the Rialto district, which is growing like a weed. Right of way between San Berdoe and Rialto will cost \$5,900. It is worth a hundred times more to that city, and San Berdoe seems to be having a real sick spell over raising the money."



Car 106 at Rialto on 20 October 40; in service as franchise car. (JW)



(Top) 1373 on 3rd near R, San Bernardino, 15 June 1941. (REM)
 (Center) 1458 on Santa Ana River Bridge near Colton, 3 January 1940.
 (Bottom) 103 at end of line, Highland, 19 November 1939. (REM)

(Top) 656 at Riverside Station, 23 May 1937. (REM)
 (Below) 1362, the franchise car, at San Bernardino Station in 1942. Note passageway for cars to 3rd St.

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Earlier history of lines covered in PE Eastern District is covered in Specials 27 and 41:

Special 27: The Riverside & Arlington Elec. Ry. \$ 1.00
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Attachment 6

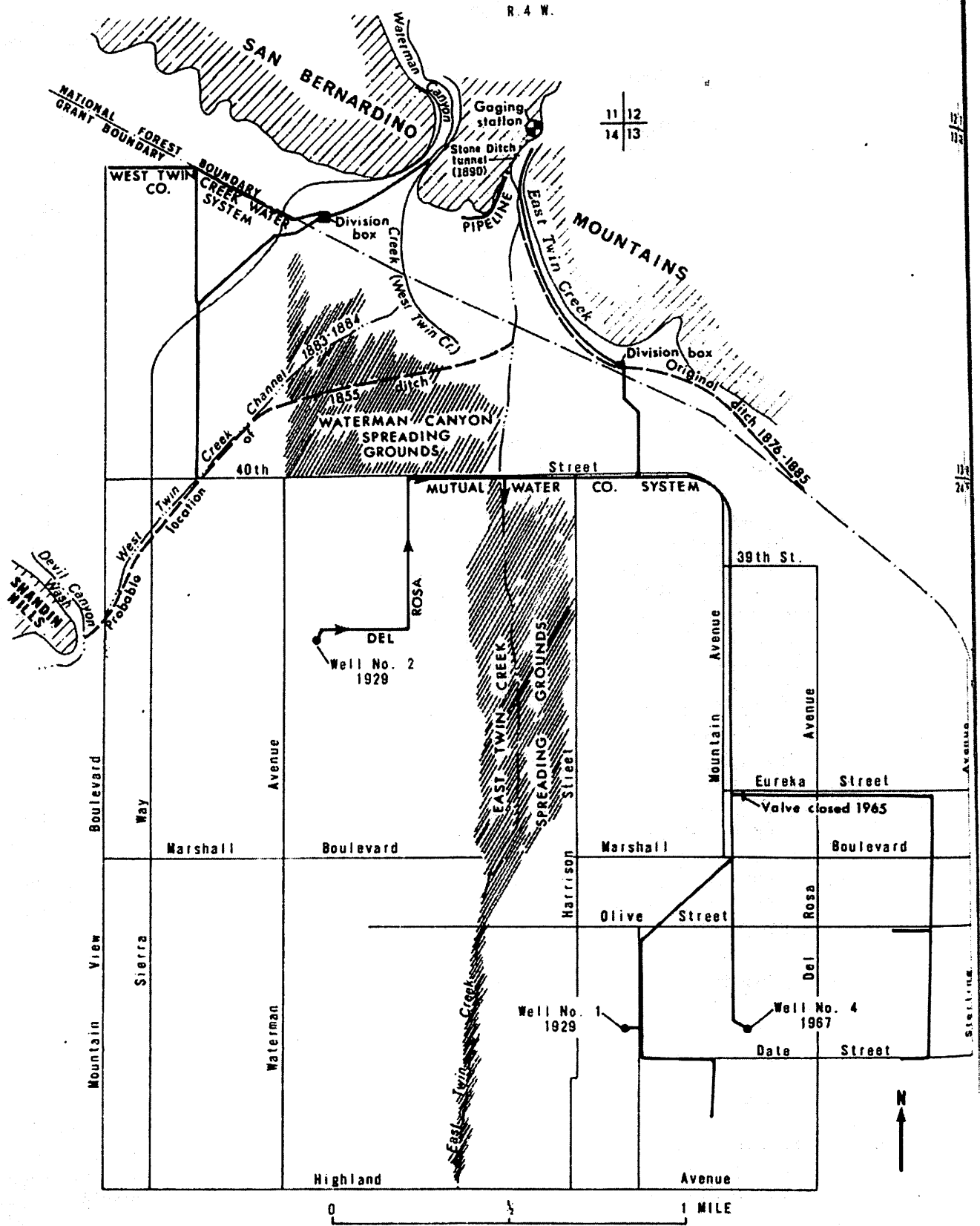


FIGURE 43.--Diversions from East Twin and Waterman Canyon Creeks.