A Glance at Our 100-Year History



As part of our 100th anniversary celebration, we created posters highlighting each decade of Palmdale Water District's history from 1918 to 2018. Every month for nearly a year leading to our centennial celebration, two posters for each decade were posted in PWD's lobby and at the City of Palmdale Library. Below is a compilation of the historical posters. Much credit goes to PWD Engineering Design Technician and in-house historian Michael R. West for his tireless research and writing that made these posters possible. We hope you enjoy learning about PWD's Century of Service.

1885-1918

THE EARLY YEARS



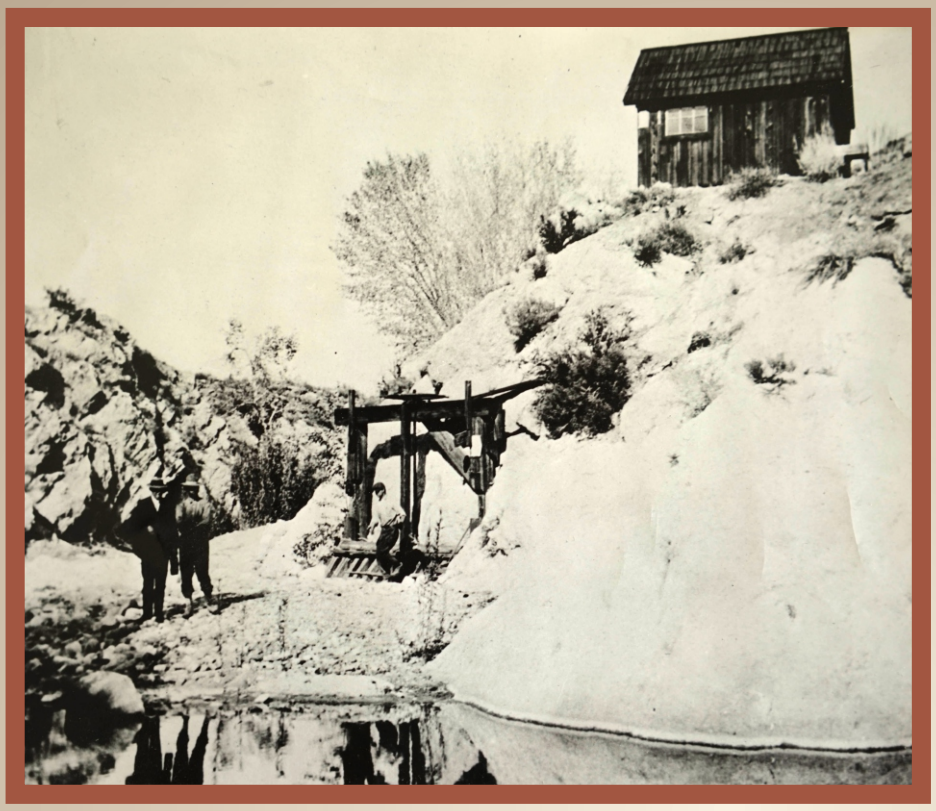
Hey Folks! Welcome to our Fourth of July picnic here at Alpine Lake (Lake Palmdale to you modern folks). It's a hot day here but thankfully we're protected from the Sun by our modest 1899 attire. The Cole brothers scraped out this reservoir a couple of years ago with mule teams. The fellows that did the work were paid a whopping 50 cents per day and the mules got and extra ration of oats. Most of the water comes from the Palmdale Ditch which carries water from Littlerock Creek. There's talk of building a dam at Littlerock to make sure we never run out of water. It probably won't happen for another 25 years, they say. That would be 1924 in the modern times that lie ahead when there will be enough water for more than a thousand people.

As we arrive in Palmdale in our buggy, we only wish we had one of those new-fangled horseless carriages. The new 1903 curved dash Oldsmobile would be perfect. We're starting an orchard which will be irrigated with water from Alpine Lake. The water system uses pipe made from redwood planks held together with wire coiled around the outside. We plan to grow almonds or if the climate is right we may grow pears. The weather here sure is warmer than back in Pennsylvania and the last time it rained good was back in 1897. If we don't build a dam to store water in, Alpine Lake is goin' to dry up. Well, we better be movin' on. Giddyup Old Bess! Giddyup Homer!



1885-1918

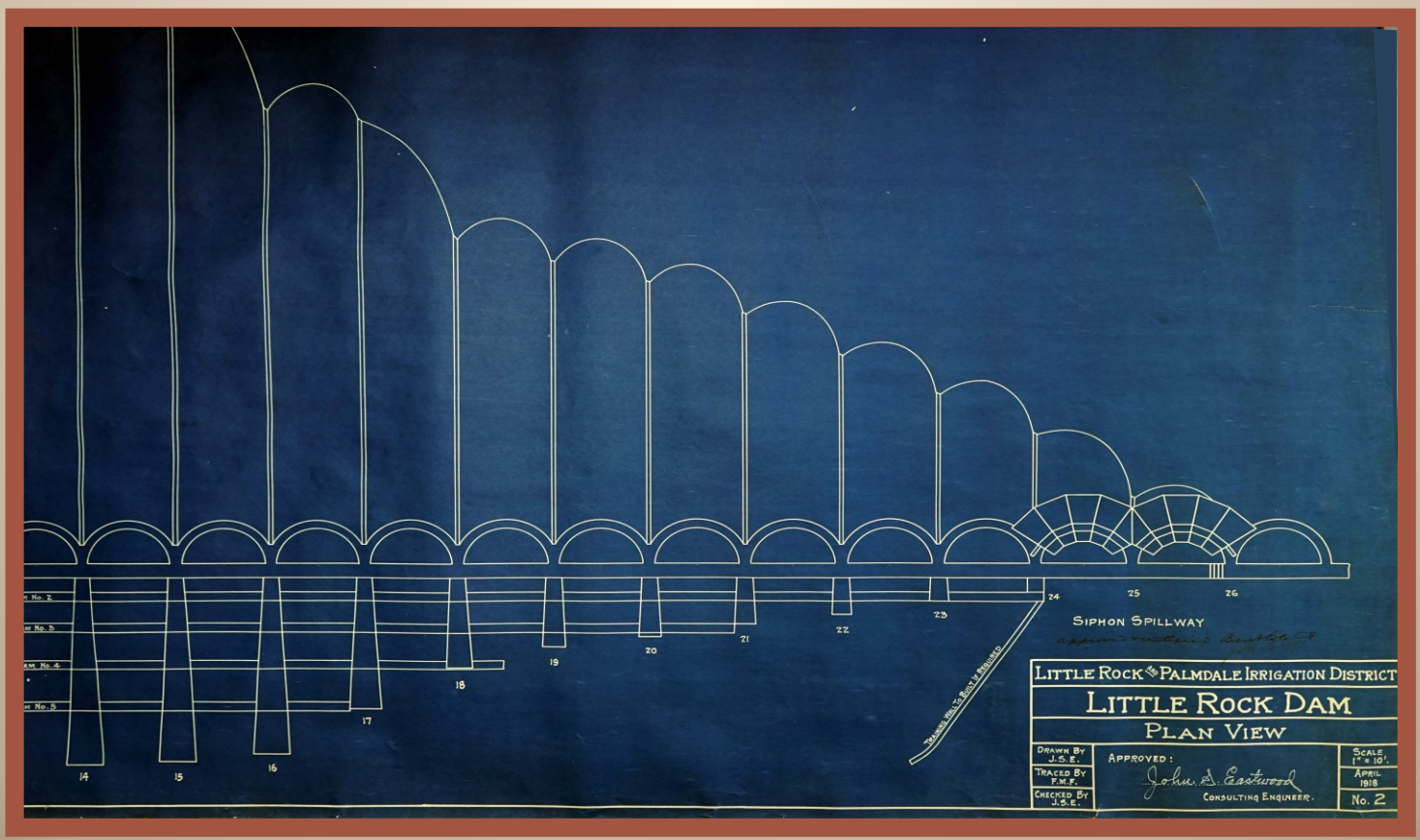
THE EARLY YEARS



There will be Water

This is the intake gate of the Big Ditch and the shack on top was built by Nathaniel Cole back in 1885. Standing on the wooden headgate built by Cole is thought to be H. Paul Schoeller who would later work for Palmdale Irrigation District from 1926 to 1948. This photo was taken about 1912 and there is a surveyor and another gentleman you can see at the left. The Palmdale Land Co. was formed to take ownership of the land in order to file for the water rights. In another ten years there will be a huge dam on this site and Palmdale will become a vast plain of alfalfa fields and orchards.

Below is a portion of one of the first engineering drawings of the proposed dam drawn in 1918.

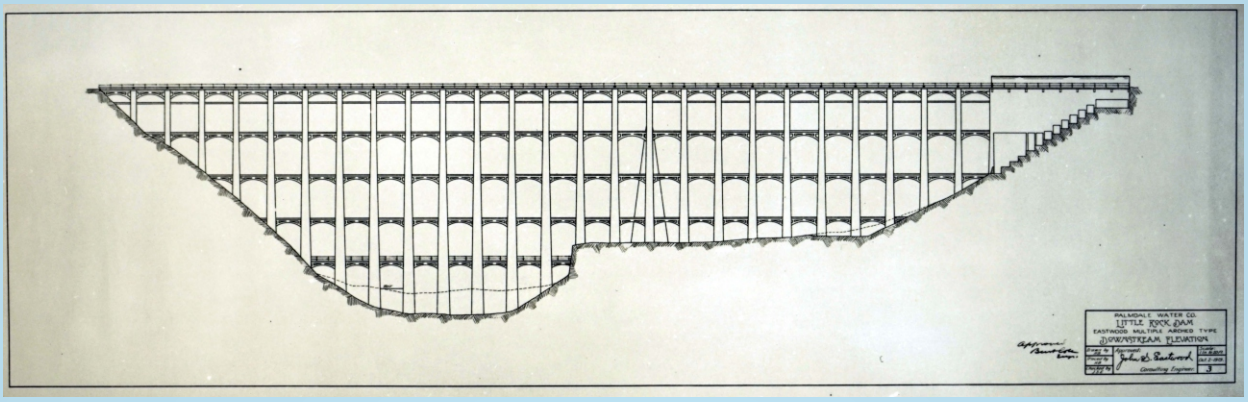


PALMDALE WATER DISTRICT

1918 - *A Century of Service* - 2018

1918-1929

A New Water District



With the proposed cost of the new dam at Little Rock Creek at about $300,000, it was determined that a public irrigation district would best finance this project. Thus, the Palmdale Irrigation District was formed by a vote of the public on July 9, 1918, followed by a resolution on July 22, 1918, which officially established the district.

John S. Eastwood was the engineer hired for the dam's design. His "multi-arch" design was considered a mix of art and engineering; however, not all in the engineering community were sure of the safety of this style of dam. Also known as a "hollow dam," its comparatively lightweight construction caused unease, even though none of Eastwood's designs since the first in 1906 had ever failed.

A New Dam



The Bent Brothers, who had done work on the ditch in prior years, began construction in August 1922. They used the plans for Eastwood's angled dam of 1919, with State Engineer William McClure assuming that a straight-edge dam was in progress. Even though a representative of the State Office of Engineer visited the dam monthly between late 1922 and early 1924, they remained unaware of the situation until May 1923. "In progress" construction revealed that the dam was being built 30 feet higher than approved. It took several consultants, who seemed to play both sides of the issue, to gain McClure's approval.

John S. Eastwood 1867-1924

Not content with a well-paying career as the city engineer for Fresno, California, John S. Eastwood preferred being in the forefront of new technology. He specialized in the design of multi-arched dams, with nine dams in the western U.S. and Canada to his credit. In August 1924, only two months after the completion of Littlerock Dam, he drowned while swimming in the Kings River east of Fresno.



1918 *A Century of Service* **2018**

1918-1929

Dam's Safety Questioned



State Engineer William McClure officially accepted the dam as complete on June 5, 1924. The dam was the highest reinforced concrete multiple-arch dam in the world when finished. Irrigation bonds totaled $750,000, nearly four times the initial $200,000 cost estimate of 1910. While the dam was under construction, as many as 116 men occupied a work camp at the downstream face of the dam.



Almost immediately, the Office of the State Engineer continued its critical analysis of the Littlerock Dam. By December 1927, Edward Hyatt, who had succeeded as State Engineer following McClure's death in 1926, noted that a site visit had revealed serious leakage in two of the dam's bays as well as the underfaces of many of its arches. Hyatt suggested that a protective coating was needed for the upstream face of the dam.

In July 1929 the State of California adopted a more stringent dam safety statute following the tragic loss of life caused by the failure of the St. Francis Dam in the Santa Clara Valley of Southern California in March 1928. The State inspected the Littlerock Dam and grew increasingly uneasy regarding its cracks; its presumed behavior under flood conditions; and its proximity to the San Andreas Fault. A State-sponsored Multiple-Arch Advisory Committee, composed of independent engineers, further reviewed the Littlerock Dam and decided that it was unsafe in its present condition.



1930-1940

The Great Depression

The "Great Depression" began with the stock market crash in October 1929. It was the worst economic downturn in the history of the industrialized world. Unemployment during these years hovered around 20%. An unregulated stock market and no protection of bank accounts wiped out people's savings.

Many farmers lost their farms and land when they owed too much to banks on loans for needed equipment. In addition, one of the worst droughts occurred during this time, creating a "Dust Bowl" over a vast area of the mid-western states.

The only option for many farmers was to head to what they thought were greener pastures. Many packed up all they had and headed to California.

Meanwhile, Back in Palmdale



Sierra Hwy. looking South in 1931



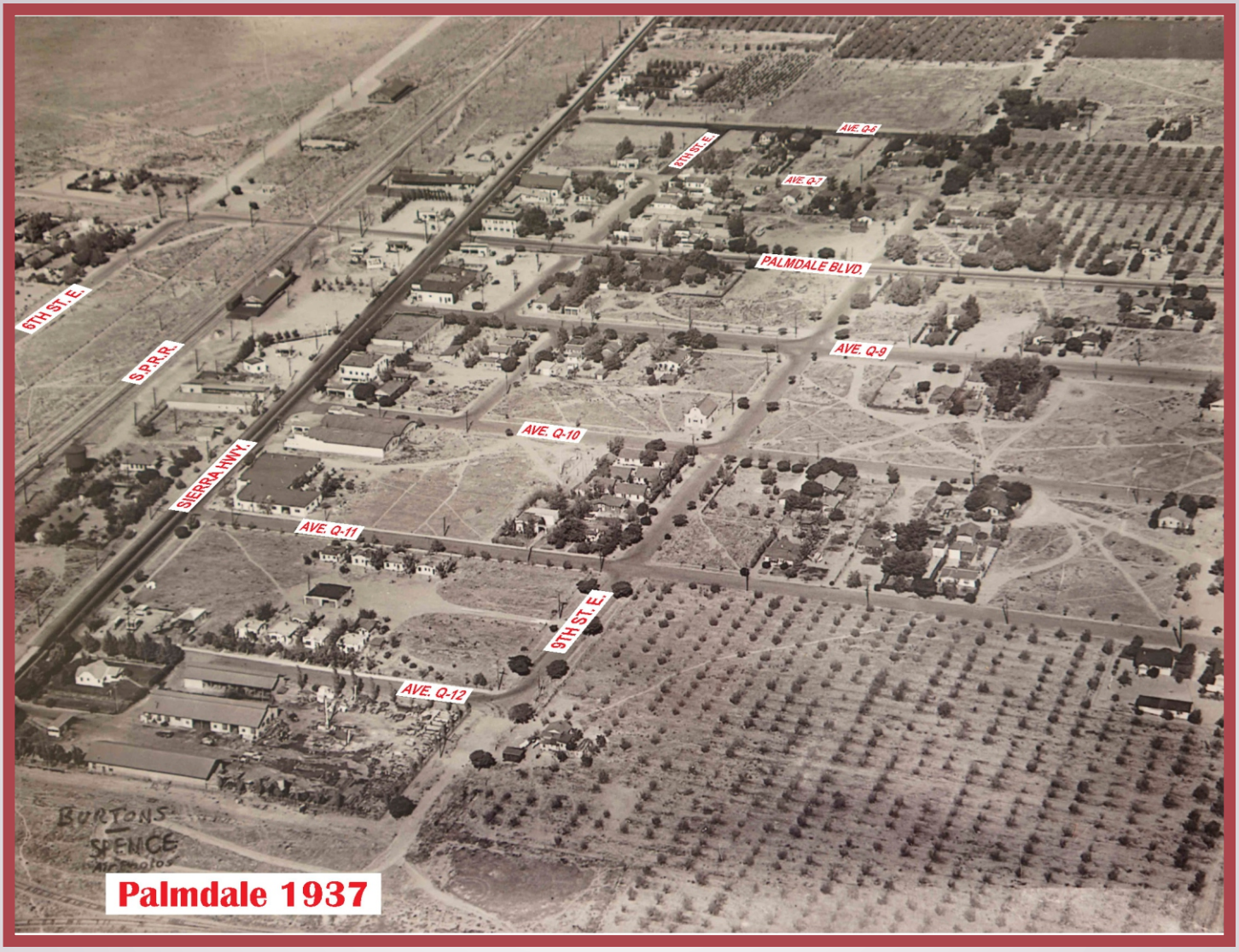
Ave. Q-9 & Sierra Hwy. in 1938

Minutes from the Palmdale Irrigation District Board Meetings

1930 - The Palmdale Irrigation District hired an attorney on retainer for $50 per month.
A pump for Well 2 was purchased for $6,091.04.
Operation and maintenance of the irrigation system in 1930-31 cost $682.88.
1931 - Rate of water for irrigation was set at $2.50 per acre-foot to be paid before water delivery.
Number of domestic water customers was 135.
1932 - Water meters were installed for domestic users for the first time.
District rented a room in the telephone building.
1933 - 3,300 feet of 2" pipe installed for domestic use.
1936 - District purchased a "good used truck" for $155.
1937 - Request made to operate a "gun club" to hunt at Palmdale Reservoir.
Request made to lease District land for sheep pasture.
1938 - District experienced worst rain storm in its history. Much of Palmdale ditch was destroyed.
1940 - Upon the death of Director E.P. Moulton, Fred DeFrenn was appointed as director.
Board voted to sell district land themselves instead of using an agency.

IRRIGATION DISTRICTS ASSOCIATION OF CALIFORNIA MEMBER

1930-1940



Repairing Littlerock Dam

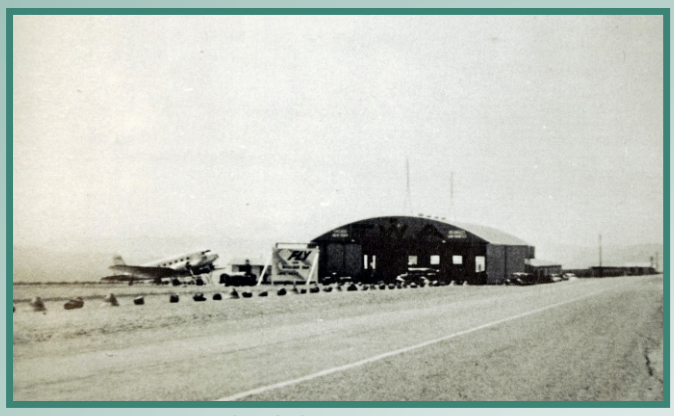
In an aerial view of Palmdale in 1937, at the depth of the "Great Depression," we see a community that held itself together with almost nothing but the hope for better days ahead. The Palmdale Irrigation District, facing an increasing level of demands from the State of California to fix perceived problems with Littlerock Dam, had no money to pay for material or labor to make repairs. Two newly created federal agencies, the Civilian Conservation Corps (CCC) and the Works Progress Administration (WPA), undertook the work at a greatly reduced cost. From 1933-36 around 200 unemployed men were housed and fed at Little Rock Creek Camp, and were tasked with repairing the dam as well as road building. In the evenings, they were entertained by the melodies from a "superheterodyne radio" supplied for their enjoyment.

All was well until March 1, 1938, when an intense two-day storm destroyed much of the flume, trestle, and ditch below the dam, cutting off the community from its water supply, just like in 1908. Again, men from the CCC were brought in to do the repair work, which was completed in May 1939.

IRRIGATION DISTRICTS ASSOCIATION OF CALIFORNIA MEMBER

1940-1950

Flying High but Landing Hard



Palmdale Airport 1937

As the "Great Depression" wore on into the early 1940s, the directors of the Palmdale Irrigation District (PID) came to the conclusion that the small airstrip owned by PID could become an airport that would be a financial wellspring for the local area. This strip was used as early as 1930-31 by local aviators. By 1933, minor improvements were made so that airlines could land when Los Angeles was fogged in. With that in mind, they completed the purchase of land within the boundaries of their airport project, which was located near the present site of Palmdale Regional Airport.

The PID board members were not experienced in the day-to-day operations of a major airport. In early 1941, they brought in a businessman, J. Gordon Hussey, who had owned and sold several companies. Plans were proceeding, but on December 7, 1941 the Pearl Harbor attack forced America into World War II. With a shift to wartime priorities, an agreement with the U.S. government allowed all the extra hangers and runway improvements built during the war to be transferred back to PID at war's end.



J. Gordon Hussey



What Might Have Been

It seemed like a windfall for the District since improvements made by the government totaled about $1.5 million. It appeared especially good for Hussey, as his agreement with the District was to be in total control of the airport while reimbursing the District $1 per year for 34 years. However, the Palmdale Water Users Association (PWUA), a group of prominent citizens who leveled well-publicized criticisms of the Palmdale Irrigation District, would stand in the way of this deal. They filed a lawsuit, and the judge ruled against both the PID board of directors and Hussey while also finding that no crime had been committed. He found that the board acted with good intentions but were inexperienced and that Hussey was merely the recipient of a "gift," which was not valid for the board to bestow upon him. So the case was closed on December 15, 1948.

1940-1950

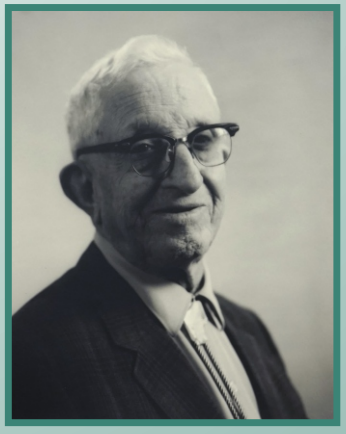
Blind Justice

Back in 1940, the Palmdale Irrigation District (PID) board had voted to sell District property without benefit of an independent agency. During this time, the Palmdale Water Users Association (PWUA) was constantly criticizing the PID. The PID's self-righteous responses gave the perception that it was only concerned with its own welfare. Wondering why the PID lacked enough money to make needed water system improvements, the PWUA filed a new lawsuit. Around May 1947, the Los Angeles County District Attorney began an investigation of the PID. During the investigation in July 1947, most of the board and several employees resigned. The investigation brought charges that one board member and an official of PID were taking a portion of the proceeds of the sale of district property for themselves as well as falsifying records. They were both found guilty in July 1948, and they both died before their prison sentences were complete.



Public opinion grew sympathetic to the plight of these two men who faced a tragic end. In the meantime, two new PID board members, who were members of the PWUA, were installed. The public quickly grew disenchanted with the new PWUA regime because they did not deliver as promised. It seemed they were better at criticism and, in doing their take-over activities, had gone too far. The tenure of one PWUA board member, who was a key player in the shake-up of the PID, lasted only a year before a recall election in early 1948 ousted him. A recall a month later ousted the second remaining PWUA director.

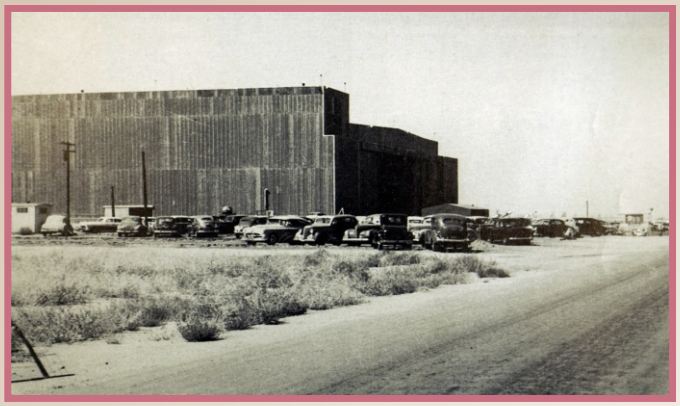
Throughout this turmoil, one man, W. Earl Carter, remained steadfast and chose not to resign from the board. He was elected to the board in 1930, and his tenure would last until 1955. Now that the PID had more familiar faces back on the board of directors, one of the first orders of business was to continue to sell district property since money was needed to fund water system improvements. It was stressed that the sales should be handled by "real estate men" at a 5% commission.



W. Earl Carter

1950-1960

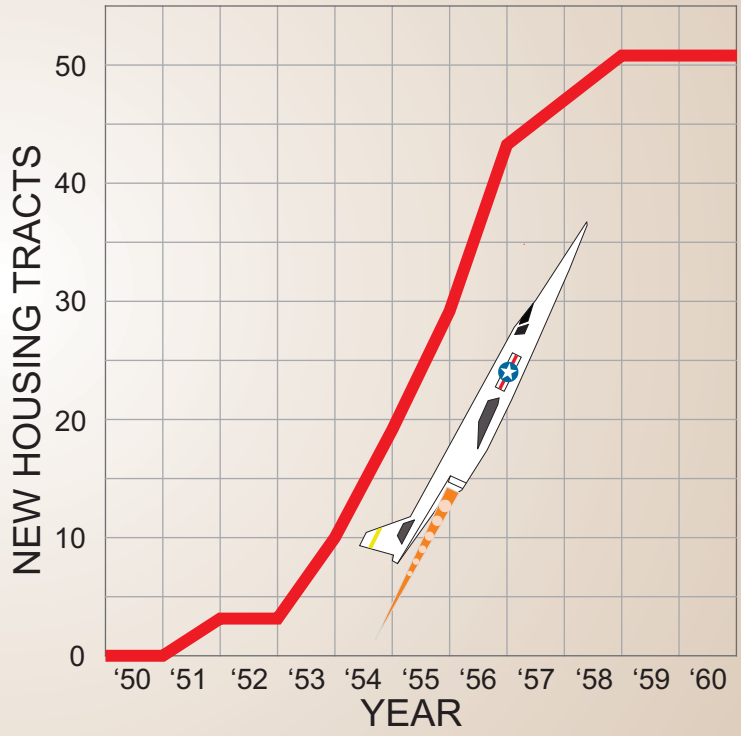
"Jet-ville"



Lockheed hangar at Plant 42 in 1950

Palmdale had a population of around 1,200 in 1940, and by 1950 it was around 2,000. Then things began to change. Palmdale became known as "Jet-ville" when aircraft firms moved from the L.A. basin and across the San Gabriel Mountains to the wide open desert to build and test their jet aircraft. This was a decade of major change when the future caught up with the small town of Palmdale.

There was a great demand for housing for the aircraft workers and their families. Palmdale Irrigation District (PID) was tasked with meeting these new demands on its water system. As the graph at right shows, around 51 new housing tracts were built in PID's boundaries between 1950-1960. In addition, there were new shopping centers to serve the increasing population, which had grown from 6,000 in 1954 to around 14,000 by 1960.





Not only was the water system faced with new demands, but other aspects of everyday life were affected by the ever growing population which had grown from 2,000 in 1950 to 6,000 when this photo (left) was taken in 1954. Traffic had gotten so bad that concerned citizens picketed for a traffic light to be installed at the intersection of Sierra Highway and Palmdale Boulevard.

1950-1960

"New and Improved" Water District



Palmdale's Original Water Treatment Plant

This Palmdale plant was one of only two water treatment plants used for domestic water in Southern California in early 1956. The plant could deliver one million gallons of treated water per day.

Minutes from the Palmdale Irrigation District (PID) Board Meetings

1950 - Approved 10% commission to real estate brokers on sales under $2,000 and 5% over $2,000.
1951 - Additions made to office at 150 Ave. Q-7.
Harold reservoir (Lake Palmdale) included in District boundaries.
1952 - Name of Harold Reservoir changed to Schoeller Lake.
1953 - Voters approved five-member Board of Directors.
Murray Pond hired as Manager.
"Present office space inadequate during this period of rapid growth," said Board.
1954 - Newly constructed 2.5 million gallon tank at Lake Palmdale approved for use.
1955 - New five-member Board of Directors sworn in.
New water treatment plant fast-tracked and built. Total cost was $98,000.
Schoeller Lake name changed to Lake Palmdale to "publicize the community of Palmdale."
1957 - PID voted to support A.V. Feather River Project Association in amount of $500.
From now on PID will be closed on Saturdays.
PID opposed high-speed boats, water skiing, and swimming at Littlerock and Palmdale reservoirs but allowed fishing.
1958 - Director Bob Howard died in automobile accident.
Lowell Felt appointed as Engineer-Manager.
Postcards mailed to domestic water users explaining the addition of fluorine to water supply.
1959 - 3 million gallon storage tank built east of Sierra Highway on the south side of Avenue S.

Maintenance Yard with Employees in 1954

From the late 1940s until 1962, the Palmdale Irrigation District offices and maintenance yard were located at 816 East Avenue Q-7. Today, this is the parking lot just north of where the Bank of America is.



1960-1970

Looking to the Future

Heros Honored

This is the first picture we have of a Palmdale Irrigation District Board of Directors meeting. It was taken on April 23, 1962, inside the old office on Avenue Q-7. Cecil Terryah, Equipment Operator, and Gerald Nichols, Field Superintendent, are holding plaques honoring their successful shutdown of the Palmdale Ditch during a severe rainstorm on February 11, 1962. They climbed up a mountainside and down a ladder after crossing the overflowing flume to shut off the valves, and then they returned during the torrential rainfall. They had to break the Little Rock Creek Trestle to stop all the water, which was going to flood a nearby home. Pictured (l-r) are Directors Sterling Johnson, Russ Franzen, Julian Jay, Dr. Francis Bourne, Dr. James Sloan, and Treasurer Denzil Williams.



Board of Directors in 1962



Building Dedication on February 2, 1963

A New Building, A New Location

After many years of inadequate facilities, the Palmdale Irrigation District staff moved to a new building on 20th Street East and Avenue Q in December 1962. It was designed in-house and is still used by District personnel today. The photo at left shows it being dedicated on February 2, 1963, and the ceremony was also used to celebrate the Palmdale Irrigation District's signing of the State Water Project. Officials with the State of California were in attendance.

The California Aqueduct (State Water Project)

Also known as the Feather River Project, its purpose was to bring water from Northern California rivers down to Southern California by means of a massive aqueduct system. With over two-thirds of California's population living in the south, voters approved a bond measure in 1960, and construction began in 1963. Now the south would get its share of the 98% of the state's bountiful water that was in the north. When the pumping station at Tehachapi was completed, the aqueduct water was sent to Southern California in 1973. The plan was to supply the needs of 25 million people by 1975 and 42 million by the year 2000.



William E. Warne, Director of Water Resources, signing documents with officials of Palmdale Irrigation District in 1963.

1960-1970

Approaching the Future

Signed, Sealed, But Not Delivered

There were a couple of conditions placed on Palmdale Irrigation District before it was to receive its annual entitlement of 17,300 acre-feet of water from the California Aqueduct. The District needed to reconstruct Palmdale Reservoir and build a 10 million gallon per day water treatment plant. It was estimated that this would be completed by 1972. The reservoir was reconstructed in 1968, but water did not come from the aqueduct until the new treatment plant was built in 1987, 15 years later than predicted and 24 years after the signing of the agreement in 1963.



Palmdale Dam - Before Reconstruction







These photos, taken in 1962, show the condition of the Palmdale Dam before reconstruction. It was built in 1896 with concrete facing added in 1924. Sixty years had taken its toll on the condition of the dam.

Palmdale Dam - The Reconstruction Process



Oct. 9, 1967



Oct. 31, 1967



Completed Feb. 1968

Although completed in 1968, water would not come from the aqueduct until 1987 when the new water treatment plant was in operation.

Getting the Work Done '65 Style



Accounting



Engineering



Field Crew

1918 *A Century of Service* **2018**

1970-1980

Prologue to the 1970s

A Leadership Vacuum

It is an interesting coincidence that Palmdale Irrigation District (PID) began the decade without its Manager-Engineer, Lowell Felt, who resigned on April 14, 1969. His career with the PID started in 1958 and, as reported in our previous 1960s chapter, was one of great accomplishments. After Felt's departure, Robert Born was hired as an interim engineer, followed by the hiring of Jesse S. (J.R.) Robinson on Aug. 16, 1969. In 1970, the Board authorized an Assistant Engineer-Assistant Manager position and hired Frank Sherrill for the job on June 7, 1971. On September 13, 1971, Sherrill was designated as Acting Engineer-Manager, a post he would hold until October 1986.



Lowell Felt in 1963



After Two Days of Snow, Dec. 29, 1971



1970s Job creator, the Lockheed L-1011



(L-R) Director James Sloan, outgoing Treasurer Donald Peck, and new Director James Cole on Jan. 12,1978

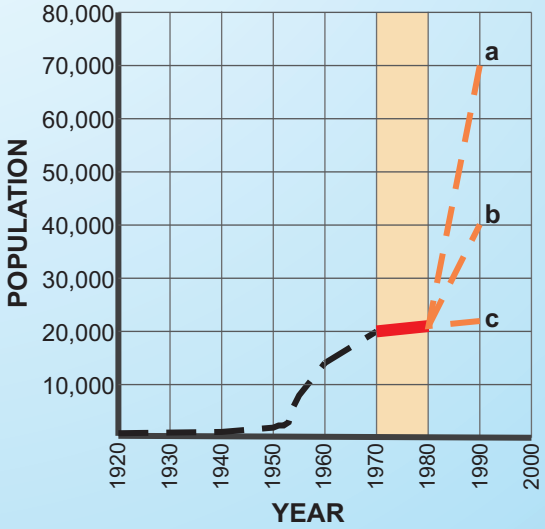
Debut of New Technology

Without any growth during the '70s, PID's main concern was again focused on issues the State of California had with the Littlerock Dam. The District paid for numerous studies done on Littlerock Dam by consultants using state-of-the-art computer programs. In 1975, the District began to address the future need for a water treatment plant but had several false steps when seeking a partnership with Antelope Valley East Kern Water Agency (AVEK). By the late '70s, with the loss of most of its veteran workforce, the District had to depend on outside engineering firms to work on its major projects. Computers made their debut in the District's offices in 1979.

Palmdale's Population

The population in Palmdale started at 20,000 in 1970 and by 1980 was 21,000. Of course, no one could see what the coming decades would bring. So it seemed, in Palmdale at least, that the 1970s were a time to forget the problems of the past and enjoy the good life.

The '80s were coming and, as the graph shows, there were different trends that might happen: a) explosive growth, b) moderate growth as in the 1950s, or c) stagnate growth as in the 1970s. Stay tuned for our next story on the 1980s to find out how Palmdale's population changed.



1970-1980

From the Minutes of the Palmdale Irrigation District (PID) Board Meetings

1970 - Manager's report recommends a computer analysis of Littlerock Dam, and the District begins a long-term consultancy with Henry Suzuki.
- Board authorizes position of Assistant Engineer-Assistant Manager.

1971 - The Sylmar Earthquake on Feb. 9, 1971, has major repercussions on the scrutiny of Littlerock Dam.
- Frank Sherrill hired as Assistant Engineer-Assistant Manager and soon promoted to Acting Engineer-Manager.
- Two sump pumps are activated with electric power at the foot of Palmdale Dam.

1972 - Consultant Henry Suzuki must create a new computer analysis of Littlerock Dam due to State requirement of a reanalysis of all dams due to the Sylmar Earthquake.
- Director Francis Bourne informs the Board that the deadline for introducing a bill to change the name of PID is fast approaching. Director Alfred Beasley votes "No" on the name change and resigns from the Board. Board President Sterling Johnson tries to convince Director Beasley to stay, but to no avail.
- Lowell Smith appointed to the Board by the L.A. County Board of Supervisors.
- Board President Johnson passes away on August 16, 1972. He was elected in 1961.
- Harold Macy appointed to the Board to fill Sterling Johnson's seat.

1973 - On March 26, 1973, "Palmdale Water District" becomes official.
- The first Organization Chart is created.

1974 - Henry Suzuki survives a coronary occlusion and continues as a consultant for the District.

1975 - The District investigates the cost of purchasing 5 million gallons (M.G.) of capacity from Antelope Valley East Kern Water Agency (AVEK) by having them increase their proposed treatment plant from 14 M.G. to 19 M.G. per day. Later, the District decides not to purchase capacity from AVEK.

1976 - District to participate with Littlerock Creek Irrigation District (LCID) in a computer analysis of the stability of Littlerock Dam to be conducted by Computer Science Corp. and Henry Suzuki at a cost of $17,500.
- On Dec. 3, 1976, the State orders the opening of valves to drain Littlerock Reservoir by Jan. 3, 1977, which prompts the District to try for an extension of computer analysis.

1977 - Littlerock Dam placed on National Register of Historic Places.
- As a condition of allowing PWD to release 10 acre-feet per day instead of opening the gates, PWD and LCID agree not to file their suit against the State for a Writ of Mandate.
- Board commends Citizen's Committee to Save Littlerock Dam.
- James Cole elected to the Board after Harold Macy does not run for another term. Macy returned to Board in Dec. 1980 upon the resignation of Cole.

1978 - Board approves "computer runs" analyzing Littlerock Dam when full and at its natural vibration period at a cost of $4,500 to be shared with LCID.

1979 - A policy to restrict the use of asbestos cement pipe (ACP) does not pass the Board.
- Boyle Engineering Corp. to provide design, plans, administration, and inspection for 2 M.G. tank and distribution lines at a total cost of $45,000.
- Director Francis Bourne reports on a meeting attended by AVEK, PWD, and Boyle Engineering to discuss a proposed joint water treatment plant at Palmdale Lake.
- Board approves proposal from IBM to furnish computers for the District at a cost of $45,000 for the first year of service.
- Jack Baxter of Boyle Engineering reports on progress on the 25th Street East tank and pipelines.

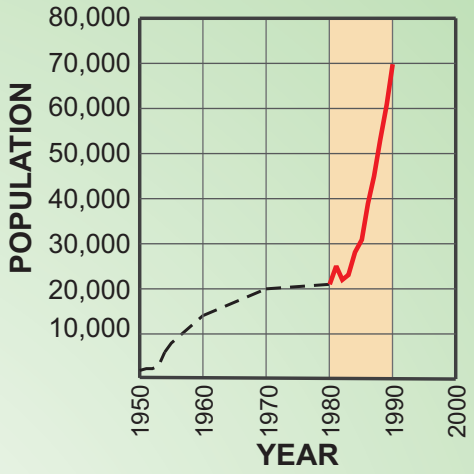
1980-1990

Explosion of Prosperity

The "Double-Dip Recession" of 1981-82

The 1980s started with a bang with explosive growth, but in July 1981 until November 1982 the worst economic downturn in America since the "Great Depression" of the 1930s occurred. As the graph at right shows, things got back on track by 1984 and growth resumed its upward trend through the rest of the decade. The 1980s was a time for materialism and consumerism, fueled by soaring confidence in the strength of the economy.

This growth would place enormous demands on Palmdale Water District (PWD) to expand and renew its water treatment and water distribution system.



The Long-Awaited Water Treatment Plant



From Concept in 1984...



...To Reality in 1987

Building a water treatment plant by 1972 was a dream that began in 1963. But it wasn't until January 1983 that a geo-technical evaluation was started at the treatment plant site. J. M. Montgomery Engineers began the engineering plans in mid-1984. When the Board of Directors sought to negotiate on the $584,000 cost of the plans, Montgomery's representatives said they "weren't in the bartering business." With the plans completed in December 1985, Kiewitt-Pacific was awarded the construction contract. The contract for construction management was sought by both J.M. Montgomery and Lowell Felt & Associates. In spite of Montgomery's advice that they were better qualified, the Board chose Lowell Felt & Associates, whose bid was substantially lower. It gave the Board an opportunity to do its own "bartering."

At a cost of $6.5 million, the Water Treatment Plant was completed. California Aqueduct water finally flowed into Lake Palmdale on May 23, 1987, per the 1963 agreement with the State. The new treatment plant made it necessary to hire qualified employees to operate it. Initially, these included a Water Treatment Supervisor, a Chief Operator, two Operators, and a Lab Technician.



First Aqueduct Water to Lake Palmdale

1980-1990

A Blast from the Past

Problems quickly developed when rampant development strained Palmdale Water District's water system. By 1986, developers were draining the system almost dry, such that nearby homeowners had no water for their homes. The contractors were told to get their water from the aqueduct. In response to this situation and 842 new homes needing water, the Board of Directors dismissed Manager Frank Sherrill and replaced him with Jack Baxter as Acting Manager-Engineer in October 1986. Baxter resigned in June 1987, feeling he did not have the Board's full support. Jon Pernula, who was Engineering Assistant at that time, took the helm as Interim Manager-Engineering Assistant. Within a month, it was revealed that three members of the Board had been trying to convince an individual to take the Engineer-Manager position. Who was this highly desired individual? It was Lowell Felt, owner of Lowell Felt & Associates. The Board approved his hiring in July 1987 with a 3-2 vote.



L. Felt, 1963

The Highest Rate of Development in California

In order to meet the demands of the substantial growth occurring in Palmdale, the following projects were initiated under Lowell Felt's direction. After 18 years, he was back and, just as in his previous employment from 1958 to 1969, positive changes were made at PWD.

Project Type	Quantity of Projects	Cost
Water Mains	21 Projects totaling over 20 miles	$8,125,000
Tank Sites	13 projects totaling 32.5 million gallons (M.G.)	$7,079,000
Booster Pump Sites	9 project sites	$799,000
Hydropneumatic Sites	4 project sites	$216,000
Water Wells	Well 8A with natural gas engine to produce 2,000 gallons per minute (GPM)	$595,000



PWD in 1985



Relaxing in the Breakroom 1989

Headquarters becoming Inadequate

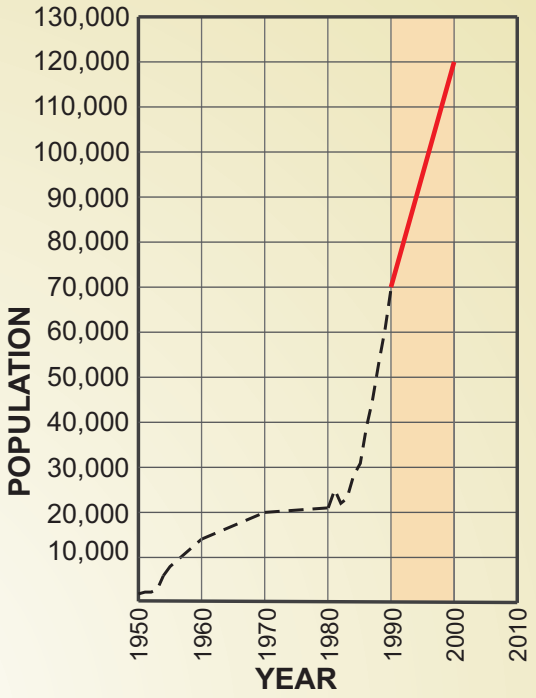
The 1960s era PWD office building was fine for a staff serving the needs of a community of 20,000 people. However, Palmdale's population reached approximately 50,000 in 1988 and would be near 70,000 by 1990. Also, many new employees were added in the last half of the '80s, including an Engineering Assistant, two Draftsmen, three Account Clerks, three Inspectors, and an Engineering Aide. In December1988, plans were developed to add 5,000 sq. ft. to the east side of the existing building. The Board awarded the contract in December 1989. Having second thoughts, the Board backed out of the $535,000 contract in January 1990.

1990-2000

Continuing Prosperity

Deja Vu

The 1990s began for Palmdale Water District (PWD) in a similar manner to how the 1970s did with a leadership vacuum created by the removal of the same General Manager, Lowell Felt. In January 1990, after his second stint that began in September 1987, Felt was once again let go with a 3-2 vote of the Board of Directors. Dennis LaMoreaux, who began as Assistant Engineer-Manager in early 1989, was made Acting Engineer-Manager until the Board hired Harold Fones in April 1990. After Fones' retirement in March 1994, David Hansen briefly headed PWD until September 1994 when LaMoreaux was appointed by the Board as the General Manager.



Adapting to Growth

As the population growth of Palmdale continued into the 1990s, it followed the same explosive trajectory of the 1980s. More customers paying their water bills meant more money for PWD to purchase office and mechanical equipment, tools, computers, vehicles, and many other things needed for the growth and maintenance of the District.

A New Office Building

On Feb. 24, 1993, an Open House was held at the new PWD office building at 2029 East Avenue Q. The Board rejected the previous plans to expand the existing 1962 office building and instead had an architect design a new building.







Public Outreach

Recognizing that the customers were an integral part of the success of the District, new programs were created during the '90s. "Aqua Dog," a cartoon dog character invented by employee Tim Moore, became a mascot for PWD. The "Aqua Dog Suit" was created to have a "real" Aqua Dog. PWD took part for the first time in the 1996 Palmdale Christmas Parade, and the first Water Awareness Fair was held in May 1997 where employees staffed various exhibits and games for the ratepayers and their children. In 1998, a new logo was chosen from entries submitted by Palmdale High School students. It replaced the previous logo from 1955.


Water Games

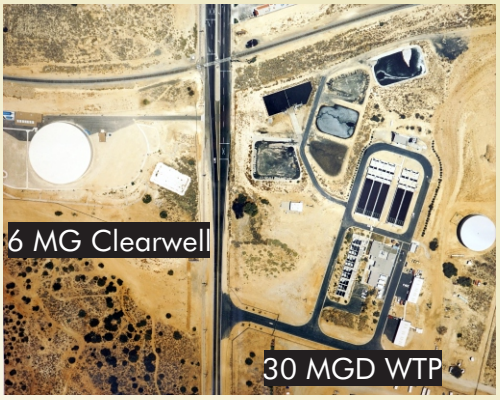

Aqua Dog

1990-2000

Approaching the Millenium

The Evolving Water Treatment Plant

When it became operational in 1987, the Water Treatment Plant (WTP) had a designed output of 12 million gallons per day (MGD) to fulfill the 10 MGD required by the State to divert water from the California Aqueduct. The WTP was designed to expand, so its output in 1991 was increased to 30 MGD. In 1997, a 6 MG Clearwell was planned to store water recently treated by the WTP. Essentially a 6 MG tank and booster system, the Clearwell gave more flexibility to allow for changing demands on the water distribution system. It is located across Avenue S from the WTP.





Adding Roller-Compacted Concrete

The Restored Littlerock Dam

Nearly 30 years passed between the time the State of California's Division of Dam Safety placed its restrictions on Littlerock Dam in 1966 until the renovations to the dam was completed in 1994. The dam was now able to hold 3,500 acre-feet of water, which was five times the 700 acre-feet the State had mandated. This was accomplished by the addition of roller-compacted concrete (RCC) to the face of the dam to fill in the space between the butresses. This stabilized them in case of an earthquake.



Touring Inside the Dam



Passageway Inspection



Cutting Passageways

The Littlerock Dam Recreation Facilities

As part of the Littlerock Dam Restoration Project mentioned above, plans were carried out that improved the recreational facilities. Boat ramps, parking, restrooms, picnic areas, as well as a visitor information structure and kiosk, were built. The photo at right shows General Manager Dennis LaMoreaux and staffers Dawn Deans, Larry Ackerman, and Claudette Roberts at the dedication ceremony on June 25, 1995.



2000-2010

A New Millenium



PWD Employees - 2003

The first decade of the new millennium at Palmdale Water District (PWD) began with a new approach to energy use for its infrastructure. In December 2000, Southern California Edison (SCE) held meetings with its major customers to inform them of drastic increases in electricity costs. All of PWD's buildings, wells, booster pump sites, and water treatment processes would be affected.

The Energy Solutions

In response to these SCE meetings, PWD put plans into effect to build a wind turbine, to install two natural gas powered generators, and to re-equip the hydro-generation plant. On August 16, 2004, the 950 kW wind turbine at Lake Palmdale was dedicated with a ribbon-cutting ceremony and speeches by dignitaries.



Wind Turbine Nears Completion - 2004



Wind Turbine in Service

The wind turbine at Lake Palmdale is the most visible of PWD's self-generating energy efforts. Power produced by the wind turbine is transmitted to the local electric power grid, which is then used to provide electricity for PWD's water treatment plant and booster pump facilities. A renewable energy incentive rebate check from SCE paid for half the cost of this project.



Hydro-Electric Facility

Energy from the hydro-electric facility is generated as water from the aqueduct to Lake Palmdale spins a turbine. The energy is used to help power nearby booster pumps.

The natural gas generators power the wells in PWD's north well field and booster pumps at the 25th Street East tank site.



Natural Gas-Powered Generator

2000-2010

Improving Water Quality

Aware that stricter state water quality regulations would start on January 1, 2008, PWD planned ahead so necessary upgrades would be operational by the deadline. These regulations included a lower Maximum Contaminant Level (MCL) for disinfection by-products. To help pay for these improvements, PWD's Board of Directors approved a $40 million bond in 2004. Improvements were constructed in two phases.



Constructing Three New Filters - 2006

Phase I



Covering the Sedimentation Basins - 2006

Phase II added Granular Activated Carbon (GAC) to the water treatment process. GAC is used to reduce disinfection by-products caused when chlorine reacts with natural products in the water. GAC also improves the taste and odor characteristics of the treated water.



Building the GAC Facility

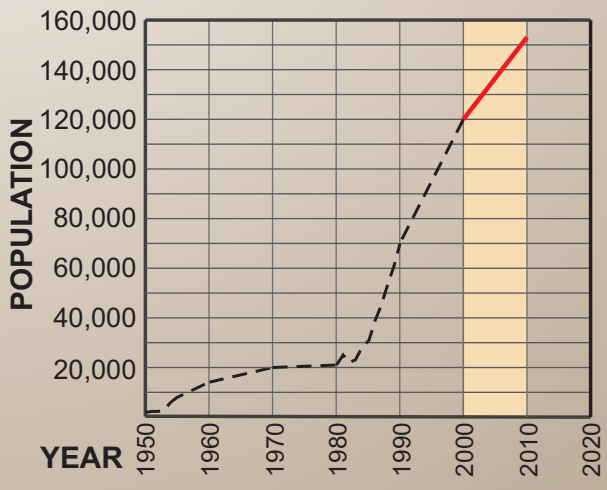
Phase II



New Water Quality Laboratory

The "Great Recession" of 2008-2009

Palmdale's population increased from 120,000 to 153,000, following the same explosive growth trend that began in 1980. However, the curve started to flatten. This was probably due to the "Great Recession," which began in 2008 when the sub-prime mortgage disaster ended the four-year housing boom. Even though experts say the recession was technically over in 2009, the negative effects persisted well into the 2010s as will be seen in our next story.

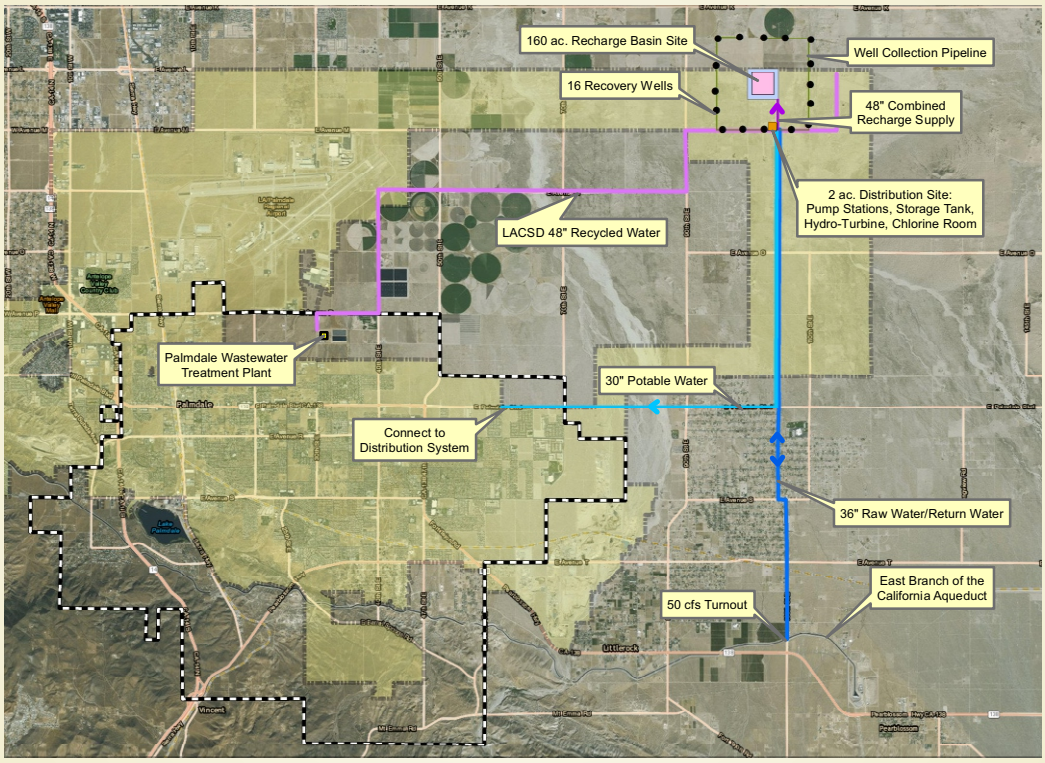


2010-2018

Projects to Take Us Into Our Second Century

Groundwater Recharge Project

The Palmdale Regional Groundwater Recharge & Recovery Project (PRGRRP) is a groundwater banking project that will take a blend of recycled water and California Aqueduct water and spread it over an 80-acre site. This blend of water will filter down through the ground where it will join the natural aquifer. A series of 16 recovery wells will then pump the water out of the ground when needed into the water distribution system of Palmdale Water District. The project will be built in two phases. Phase 1 is intended to meet PWD's water demands for the first 22 years of the project's life, providing a water supply of 14,125 acre-feet per year. Phase 2 is sized to meet PWD's water needs for the next 50 years (2068). The final build-out will provide a water supply of up to 24,250 acre-feet per year.



Groundwater Recharge Diagram

Littlerock Sediment Removal Project



Dry reservoir showing buildup of sediment

By 1991, just before the Littlerock Dam renovation, decades of sedimentation had reduced its capacity to 1,600 acre-feet. The original capacity in 1924 was 5,400 acre-feet. As part of the renovation, plans were made to remove sediment and increase its capacity to 3,500 acre-feet. The capacity remains at 3,000 acre-feet since the dam's renovation due to the discovery of a federally protected endangered species, the arroyo toad. This delayed the removal of any sediment until measures could be taken to protect this small amphibian. Constuction of a grade-control structure to protect the toads is scheduled to begin this summer, followed by sediment removal in 2019. As of today, it will take 7 to 12 years to remove the 500 acre-feet of sludge to bring the reservoir up to the planned 1992 capacity of 3,500 acre-feet. The plan is to remove sediment on an ongoing basis to keep the capacity at a constant level.

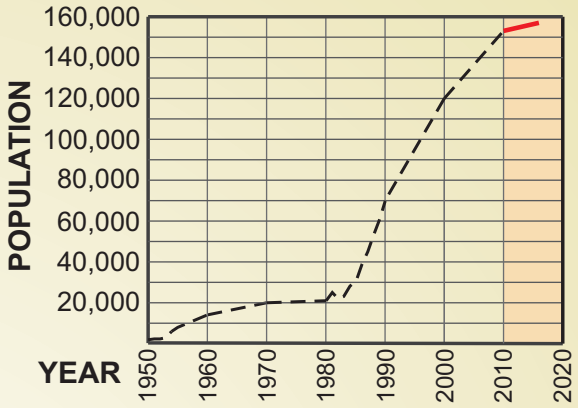
1918 *A Century of Service* **2018**

2010-2018

PWD's Next Century

Population Growth Slows

The after-effects of the Great Recession of 2008-2009 are evident in the slow-down of population growth Palmdale has experienced in the last decade. The state of California, as a whole, has seen a net loss of its population while neighboring states have experienced a steady population increase, with many transplants from California. As the graph shows, Palmdale's population has increased by only about 4,000 people since 2010, and the explosive growth of the 1980s has slowly disappeared.



A New Logo for the Next Century

1933 - 1954

1954 - 1998

1998 - 2018

2018 - ?

- The earliest logo was not a true logo for Palmdale Irrigation District, but a generic logo used by member irrigation districts in California. It sometimes appeared on District stationary beginning in 1933.
- Palmdale Irrigation District's first real logo appeared mysteriously in 1954 and incorporates a complete representation of the city - Littlerock Dam, Palmdale Dam, mountains, and a Lockheed Shooting Star. It had a long tenure of 44 years.
- Palmdale Water District's next logo was the winning entry by an art student from Palmdale High School. It was only intended to be used for one year beginning in 1998, but it lasted 20 years until 2018.
- PWD's bold new logo is fondly known by District employees as "The Drop," with its blue abstract shape representing a drop of our precious water. The water theme is emphasized again in its center where the "W" incorporates a flowing shape suggesting waves and the moving flow of water.

The Past is Present, the Present is Past



"Alpine Lake," 1899



Palmdale Lake, 2018

On Sunday, July 22, 2018, from 1-4 p.m., PWD will hold a Grand Celebration for our first 100 years of service to the community. We are grateful to the pioneers for their hard work and foresight in laying the foundation that allows PWD to provide high-quality water to its customers at a reasonable cost.

1918 *A Century of Service* **2018**