

## LOS ANGELES CITYWIDE HISTORIC CONTEXT STATEMENT

Context: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT, 1850-1980

Sub-Context: Municipal Infrastructure and Services, 1900-1980

Theme: Municipal Water and Power, 1902-1980



*Prepared for:*

City of Los Angeles  
Department of City Planning  
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## **PREFACE**

This theme of Municipal Water and Power is a component of Los Angeles’s citywide historic context statement, and provides guidance to field surveyors in identifying and evaluating potential historic resources relating to water and power. Refer to [HistoricPlacesLA.org](http://HistoricPlacesLA.org) for information on designated resources associated with this theme as well as those identified through SurveyLA and other surveys.

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## **THEME INTRODUCTION**

The theme of Municipal Water and Power examines resources constructed by the City-owned utilities that became the Los Angeles Department of Water and Power (DWP). It begins in 1902, when the City took over control of the water system, and includes facilities built to supply, store, and deliver water and power constructed through the 1970s.

What eventually became the Department of Water and Power in 1937 underwent numerous name changes before that date. During the earlier period, water and power remained separate bureaus within the Department of Public Works. At the same time, water and power cooperated in construction efforts, such as building the Los Angeles Aqueduct, and in administration, such as the joint use of local “Water-Power-Light” neighborhood offices. The historic context traces this evolution.

Resources related to municipal water and power form six sub-themes. The first is Reservoirs, Dams, and Water Supply Infrastructure. This includes resources for the supply, storage, and delivery of water. The second is Power Generation. This consists of resources that house machinery providing power through hydroelectric and steam generation. The third is Power Receiving and Distributing Stations. These resources house machinery needed to deliver electricity to customers and are set in the neighborhoods that they serve. The fourth is Administration Buildings and Service Yards. These are resources that provide support services for the provision of water and power. The fifth is Transmission Line Towers. These are resources that support historically significant power lines. The sixth sub-theme, Significant Individuals, includes resources that are directly associated with persons who played a pivotal role in the history and development of water and power in Los Angeles. To date, two individuals have been called out as significant – William Mulholland and Ezra Scattergood.

The theme of Municipal Water and Power involves two issues. The first is the relationship between architecture and engineering. Most of the resources examined are based on engineering functions, such as dams for water storage and generators for power creation. In some cases, as with the dams and the

large steam generating facilities, the engineering requirements are dominant. Any architectural consideration, in the traditional sense of design based on aesthetics, is secondary. Often the aesthetic appeal of these works comes from an elegant execution of the engineering requirements as well as the large scale that makes them landmarks.

The second issue is that of an appropriate architecture for those resources that are housed in buildings and structures. This includes, in particular, the neighborhood power distributing stations and the local offices for the power and water bureaucracies. Historically, the question was the degree to which these buildings should stand out as monuments or blend into the surroundings so as to be essentially invisible.

Here the resources divide themselves into two approaches. The earlier, dominant until the Second World War, was the belief that these resources should be monumental symbols of a benevolent government role in daily life. Through the use, first, of traditional historicist architecture and, later, dramatic lighting and graphics, these distributing stations and local offices stood out as clearly identifiable entities.

After the Second World War, the approach changed. Instead of standing out, facilities did their best to hide. Distributing stations became fenced yards, indistinguishable from their surroundings. Administration offices replaced the dramatically-lit “Water-Power-Light” lettering with discreet “DWP” logos. The single truly monumental structure of the postwar period, the Downtown DWP General Office Building of 1964 (111 Hope Street, L.A. Historic-Cultural Monument No.1022) is a modernist corporate high-rise that emphasizes the businesslike nature of municipal ownership.

**Evaluation Considerations:**

The theme of Water and Power may overlap with other SurveyLA themes as follows:

- Themes within the Architecture and Engineering context, in respect to water and power resources which are significant examples of particular architectural styles.
- The Public Works sub-theme of Street Lights, in respect to the relationship between street lighting and municipal power development.



*Department of Water and Power General Offices during the 1930s  
207 South Broadway, Downtown  
(Los Angeles Department of Water and Power)*

## **HISTORIC CONTEXT**

Historians often speak of the Progressive movement in the early twentieth century. The movement sought to bring order and fairness to what many saw as the chaos and injustice of contemporary industrial society. Many of its reforms were directed at giving voters more say in the making of laws through devices such as the initiative and the referendum, or at strengthening regulations on corporate behavior. But an important part of Progressivism was the push for municipal ownership of public utilities. The creation of the Los Angeles Department of Water and Power was a product of that effort.

Both liberal reformers and pragmatic businessmen supported municipal ownership. It was seen as a way to bring scientific management and advanced technology to public utilities. As one historian has noted, "Its rationale was economic rather than political – better service and lower charges, not public supervision of urban development."<sup>1</sup>

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<sup>1</sup> Robert M. Fogelson, *The Fragmented Metropolis: Los Angeles, 1850-1930* (Berkeley & Los Angeles: University of California Press, 1967 [1983]), 229.

### **The Private Sector Era, 1850-1902**

Los Angeles actually began with a publicly-owned water system. During the Spanish Colonial and Mexican years water belonged to the Pueblo. Onto this was grafted the Anglo-American tradition of private enterprise. The City combined the two legal positions through the franchise or license, whereby a private entity would be given the right to create a system. The City reserved the power to take back that right if it saw fit. By the late 1860s the privately-owned Los Angeles City Water Company emerged as the licensee.<sup>2</sup>

The Company built upon the Spanish and Mexican use of the Los Angeles River as the primary source of water. Originally, water was delivered through the *zanjas*, or open trenches, created under Spanish and Mexican rule. The private companies, with which the City contracted, began replacing the *zanjas* with, first, hollowed logs in the 1850s and, then, iron pipes in the late 1860s. But the *zanjas* remained in place until 1903 as a means of delivering non-potable water for irrigation.<sup>3</sup>

Two lakes within currently existing parks began as parts of the *zanja* distribution system. Westlake, now within MacArthur Park, and Eastlake, now within Lincoln Park, served as storage reservoirs. As pipes replaced the *zanjas*, these reservoirs were too low in elevation to provide needed pressure. Eventually, they became ornamental centerpieces for the parks that emerged around them. Westlake Park, later renamed General Douglas MacArthur Park, is L.A. Historic-Cultural Monument No. 100.<sup>4</sup>

The needed pressure for the piped system came from the Buena Vista Reservoir, the construction of which began in 1870. It was located in Elysian Park, to the west of the river and the Southern Pacific Railroad, north of Broadway and south of Figueroa Street (now the Arroyo Seco or 110 Freeway). An intake along the river drew water and delivered it to the reservoir, originally by means of a water wheel and later by pumps. (The original reservoir no longer exists. But a subsidiary built in 1903 and named the Elysian Reservoir remains north of the Arroyo Seco Freeway).<sup>5</sup>

In addition to the Los Angeles City Water Company, there were a number of smaller private enterprises created to serve individual subdivisions outside the city's original limits. A remnant of these local private efforts is Echo Park Lake. It was created in 1870 by entrepreneurs who intended to use it as a source of domestic water for the adjacent lots they had developed. They built an earthen dam across

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<sup>2</sup> "Water in Early Los Angeles," "Zanja Madre – LA's Original Aqueduct," and "Zanjeros, 1781-1903," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>3</sup> *Ibid.*

<sup>4</sup> "Early Los Angeles Water Reservoirs," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Jeffrey Herr, *Landmark L.A.: Historic-Cultural Monuments of Los Angeles* (Los Angeles: City of Los Angeles, 2002), 429.

<sup>5</sup> "Early Los Angeles Water Reservoirs" and "Water in Early Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

the Arroyo de los Reyes, dug a canal to the Los Angeles River, and then flooded the ravine. In 1891 the company donated the reservoir and land to the City. It became a park (L.A. Historic-Cultural Monument No. 836) one year later.<sup>6</sup>

Unlike water, there was no historic tradition of public ownership for electric power generation and distribution. Nor, at least until the early twentieth century, was electricity seen as a necessity of life. In addition, the early power systems could only serve small areas, so that locally-based and privately-owned electrical generation and distribution was the most practical arrangement.<sup>7</sup>

The City's first power plant dated from 1882 and was located at Alameda and Banning Streets. Constructed by the San Francisco-based California Electric Light Company (now PG&E), it provided power for the city's Downtown street lights, which the company also owned. Within a year the facility had been taken over by the newly formed Los Angeles Electric Company. This company decided to expand into the private distribution of power and by 1889 had 235 customers.<sup>8</sup>

The L.A. Electric Company quickly became the largest of the private power suppliers within the city limits. It adopted alternating current in 1890, thereby allowing it to enlarge its reach, and in 1893 built a new power plant at Alameda and Palmetto Streets that was the largest generator in Southern California. L.A. Electric eventually became the Los Angeles Gas and Electric Corporation and continued to provide power to the city until 1936.<sup>9</sup>

The Los Angeles Electric Company was soon joined by other private endeavors, serving specific parts of the city. In 1896, the West Side Lighting Company was organized for customers in that section. Its first large steam plant was located on the corner of Second and Boylston Streets. It merged in 1902 with the newly established Los Angeles Edison Company and took on the Edison name. (It later became Southern California Edison once it expanded its service into the suburbs.)<sup>10</sup>

An imposing Edison Electric Company resource remains. This is the Los Angeles Number 3 Steam Generating Plant, located at 650 South Avenue 21 in Lincoln Heights (L.A. Historic-Cultural Monument No. 388). The Southern Pacific's main rail line ran just to the south, giving the plant good transportation links for the provision of fuel oil to power the generators. It was built in 1904 and was the largest of Edison's steam plants at that time. It is a brick and concrete structure designed by John Parkinson.<sup>11</sup>

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<sup>6</sup> "Early Los Angeles Water Reservoirs," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>7</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Herr, *Landmark L.A.*, 453; 1920 Sanborn Map.

## **The Early Years of Municipal Water, 1902-1910**

By the late 1800s a large portion of the public had come to support municipal control of the water system. The City already owned the water in principle, and a takeover consisted merely of revoking the license of the L.A. City Water Company. Other cities had transformed their water systems into municipally-owned utilities and had success in running them in an efficient and economically viable manner.<sup>12</sup>

In 1889 the City Charter was amended to affirm the City's legal right to operate its own system. In the local elections of 1896 both political parties supported the creation of a municipally-owned water system. The next year the city council began planning for such a system and notified the L. A. City Water Company that its franchise would not be renewed when it expired in 1898.<sup>13</sup>

In that year Fred Eaton was elected mayor on a platform of municipally-owned water and negotiations began. But it would take years of legal struggle before the Company relinquished control. The City of Los Angeles finally was able to purchase its assets for two million dollars in 1902. The newly-formed Department of Water also obtained, along with the Company, the services of its superintendent, William Mulholland.<sup>14</sup>

At the time of the takeover, Los Angeles had about 120,000 residents. The water system had 23,180 customers served by a network of 337 miles of mains and 676 fire hydrants. Within the next few years, under the leadership of Mulholland, the newly created Department of Water took over other independent suppliers, the most important of which were the West Los Angeles Water Company and the Union Hollywood Water Company. In total, over a dozen local private companies became part of the municipal system.<sup>15</sup>

The first move by the new Department of Water was to enlarge and improve the existing storage capacity. The most notable of the new reservoirs constructed during these early years were the Ivanhoe and Silver Lake (L.A. Historic-Cultural Monument No. 422). The Ivanhoe was completed in 1906 and the Silver Lake in 1907. Water to fill these reservoirs came from a new supply line that extended from an intake on the Los Angeles River near Griffith Park.<sup>16</sup>

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<sup>12</sup> Fogelson, *Fragmented Metropolis*, 230.

<sup>13</sup> "Water in Early Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>14</sup> "Municipal Ownership," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>15</sup> J. Gregg Layne, *Water and Power for a Great City: A History of the Department of Water and Power of the City of Los Angeles to December, 1950* (Los Angeles: Department of Water and Power, 1952). 70, 179; "Water in Early Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>16</sup> Herr, *Landmark L.A.*, 455; Layne, *Water and Power for a Great City*, 85; From *Pueblo to Metropolis* (Los Angeles: Department of Water and Power, 1986), 2. The original Silver Lake Reservoir was replaced by a new reservoir in 1977. See *From Pueblo to Metropolis*, 11.

Also notable were improvements to existing reservoirs, such as the Highland Reservoir. It was originally known as the Garvanza Reservoir and served an independent settlement of that name founded in 1886. The reservoir is believed to date from that time. The area joined Los Angeles in 1899 and the reservoir became part of City's municipal water system in 1902. A new pumping station, still extant, was added in 1907 and the reservoir itself enlarged in 1909. The pumping station and site of the reservoir are L.A. Historic-Cultural Monument No. 412.<sup>17</sup>

Linked to these reservoirs was the system's first steel tank. It was constructed on LeMoyné Avenue in 1906 to serve the Edendale district. It was supplied by water pumped from the new Ivanhoe-Silver Lake reservoirs. This reliance on a few large reservoirs and on multiple local tanks placed at high elevations and supplied by pumps was to become the pattern the department would follow in the decades to come.<sup>18</sup>

### **Construction of the Los Angeles Aqueduct, 1904-1917**

The new Department's most pressing long-term problem was not storage and distribution. It was supply. While the river continued to provide a large part of the city's water, growing demand led to increasing use of ground water pumped by wells. Some of these wells dated from before creation of municipal ownership. There was a particular concentration of wells at what was called the neck of the San Fernando Valley, in today's North Hollywood-Toluca Lake area. These wells were linked to the Silver Lake Reservoir through the River Conduit, and continued to supply the city with a good portion of its water for decades to come.<sup>19</sup>

But Mulholland and his staff realized that these local sources would soon be inadequate. As early as 1904 the Department of Water was considering the Owens Valley watershed, on the eastern slope of the Sierra Nevada, as a source to be accessed by means of an aqueduct approximately 183 miles long. In March of 1905 Mulholland recommended that the City acquire the needed water rights. The necessary rights-of-way through federal lands were obtained the following year, and in 1907 Los Angeles voters approved a twenty-three million-dollar bond issue for the Los Angeles Owens Valley Aqueduct. Construction began in 1908 and was completed in November of 1913.<sup>20</sup>

The process by which the water rights were obtained and the resulting ecological damage done to Owens Valley are still matters of controversy. But, as a technical achievement, the aqueduct remains admirable. Mulholland was able to establish a route that, through the use of siphon action, brought the

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<sup>17</sup> Herr, *Landmark L.A.*, 454; Layne, *Water and Power for a Great City*, 89; *Los Angeles Times*, November 8, 1990.

<sup>18</sup> Layne, *Water and Power for a Great City*, 86.

<sup>19</sup> Layne, *Water and Power for a Great City*, 92; "Principal Water Supply Systems" System Map from *Water for Los Angeles* (Los Angeles: Department of Water and Power, 1978).

<sup>20</sup> "The Story of the Los Angeles Aqueduct" and "Construction of the Los Angeles Aqueduct," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

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water to Los Angeles without the use of pumps. The water arrived in the northwest corner of the San Fernando Valley and was stored in the Lower San Fernando (or lower Van Norman) Reservoir. (It was later replaced by the Los Angeles Reservoir, located to the southwest of the 5 Freeway, between its intersection with the 210 and the 405 Freeways.)<sup>21</sup>



*Los Angeles Aqueduct Opening Ceremony, 1913*

*Sylmar*

*(Los Angeles Public Library)*

Water was only one of the resources supplied by the aqueduct system. The other was hydroelectric power. As early as 1905 the Board of Water Commissioners announced plans to generate power as part of the Owens Valley project, and in 1906 appointed Ezra Scattergood as a Special Consulting Electrical Engineer to oversee the effort. He became Chief Electrical Engineer for the new Bureau of Aqueduct Power in 1909. Scattergood was to prove as significant for the development of municipal power as was Mulholland for water.<sup>22</sup>

The creation of a City-owned power utility became official in April of 1910 with the passage of a bond issue of 3.5 million dollars to create a municipal electric system. In 1911 the Bureau of Power and Light

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<sup>21</sup> Layne, *Water and Power for a Great City*, 182; System Map from *Water for Los Angeles*.

<sup>22</sup> "Electricity on the Aqueduct," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 90; *Los Angeles Department of Water and Power: Its Place in the Making of a City* (Los Angeles: Department of Water and Power, 1987), 38.

was formed to manage this system. In 1913 an amendment to the City Charter officially adopted the policy of publicly-owned water and power resources. An additional bond issue of 6.5 million dollars passed in May of 1914 for acquisition and construction of generating and transmitting facilities. It also allowed for use of the bond money to acquire private power companies.<sup>23</sup>

The first generating station along the aqueduct, at Division Creek in the Owens Valley, was built in 1908. Its purpose was to provide power for the construction of the aqueduct itself. In 1911, once the first bond issue passed, work began on a generating station for city power. This was the San Francisquito Power Plant Number 1, located north of Santa Clarita in San Francisquito Canyon. By April of 1917 it was completed and began to provide electricity to Los Angeles.<sup>24</sup>

The City had actually begun distributing power to customers the year before. It erected its first power pole in March of 1916 in northeast Los Angeles at the corner of Pasadena Avenue (now North Figueroa Street) and Piedmont Street, and service began that year to Highland Park and Garvanza. But, as there was yet no power received from the San Francisquito plant, the City had to buy electricity from Pasadena's city-owned system.<sup>25</sup>

In spite of these achievements, public enthusiasm for a municipally-owned power utility was not as widespread as that for water. Private ownership of power seemed to function adequately for many citizens. Compared to water, electricity was relatively easy to create and distribute. Because of this lack of widespread public support, the shift from private to public ownership was a slower process. Municipal power still had to prove that it was an economically viable alternative to the private sector.<sup>26</sup>

### **Development of Municipal Water and Power, 1917-1937**

During the years between the First World War and the Great Depression of the 1930s, Los Angeles expanded its boundaries and greatly increased its population. The principal of municipal ownership of water and power had been established with the completion of the aqueduct and its hydroelectric capacity. The 1920s and 1930s saw the incorporation of the private utilities still functioning within the city into the municipally-owned system, and the emergence of the Department of Water and Power as the agency to manage this enlarged system.

In 1915, soon after the aqueduct's completion, the City annexed the San Fernando Valley and thereby incorporated the territory at the point of delivery. But the impact of the new water supply was not felt

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<sup>23</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 90, 179.

<sup>24</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>25</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 180.

<sup>26</sup> Fogelson, *Fragmented Metropolis*, 233.

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by other parts of the city until after the First World War. It was then that the newly renamed Bureau of Water Works and Supply constructed a series of additional reservoirs which connected to the storage facility at the base of the aqueduct.<sup>27</sup>

The Chatsworth Reservoir, serving the northwestern section of the San Fernando Valley, was completed in 1919. The Encino Reservoir, dating from 1921, served the southern San Fernando Valley. The Stone Canyon Reservoir, located in the hills above Bel Air and also from 1921, served Westwood and the West Side.<sup>28</sup>



*Looking north from Yucca and Vine Streets, Hollywood, circa 1930  
Mulholland Dam in the background, center-right, before concealing fill was added  
(Los Angeles Public Library)*

The most dramatic of these 1920s-era projects within the city limits was the Mulholland Dam and Hollywood Reservoir (L.A. Historic-Cultural Monument No. 421). The dam, named for the head of the Bureau who also designed it, is located in Weid Canyon, just to the east of Cahuenga Pass in the hills above Hollywood. It is a concrete-arched dam constructed between August of 1923 and February of 1924.<sup>29</sup>

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<sup>27</sup> System Map from *Water for Los Angeles*.

<sup>28</sup> "Early Los Angeles Water Reservoirs," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 182-183.

<sup>29</sup> Herr, *Landmark L.A.*, 455; "Mulholland Dam and Hollywood Reservoir," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

The Mulholland was one of two Bureau dams of similar design. The other was the St. Francis, located in the San Francisquito Canyon north of the city. The St. Francis Dam failed in 1928 and over 450 people died in the resulting flash flood. The failure is believed to have been due to the inadequacy of the soil to which the eastern abutment of the dam was anchored. The consensus is that it would have been impossible for geologists of the time to have detected this inadequacy.<sup>30</sup>

Mulholland was cleared of any charges of negligence. But, as the designer of the St. Francis Dam, his reputation was damaged and he retired in 1929. Nonetheless, his importance to the development of the Los Angeles water system was still acknowledged. He was honored in 1940 by the construction of the William Mulholland Memorial Fountain, located at Los Feliz Boulevard and Riverside Drive (L.A. Historic-Cultural Monument No. 162).<sup>31</sup>

As a result of the St. Francis Dam failure, the City deposited soil fill along the face of the Mulholland Dam to a height that reached the base of the ornamental arches that ran along its top. This was done to reinforce the dam against the pressure of the water it contained. It also had the effect of lessening the visual impact of the dam. It no longer loomed over the residents of Hollywood, but was hidden underneath an increasingly dense layer of landscaping.<sup>32</sup>

By the late 1920s it was apparent that the watershed serving the aqueduct needed to be increased. Los Angeles residents approved a bond issue in 1930 that financed the Mono Basin Project, which extended the aqueduct more than one hundred miles further north. This accessed water from four mountain streams that flowed into the Mono basin. The project was completed in 1940 and increased the flow into the aqueduct by approximately thirty-five percent.<sup>33</sup>

Unlike municipal water, municipal power was slower to gain control over all resources within the city limits. During the 1920s, private suppliers continued to serve around thirty percent of customers. It was not until the middle of that decade that business interests finally admitted that a single publicly-owned system made economic sense, and supported the newly named Bureau of Power and Light in its efforts to take control of the remaining private providers.<sup>34</sup>

Two private power companies became the object of this effort to gain total control. The first was Southern California Edison. The City's takeover of its facilities occurred in two stages. In 1922 the Bureau of Power and Light purchased the Edison Company's distribution system within the city limits at

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<sup>30</sup> "St. Francis Dam Disaster," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>31</sup> Herr, *Landmark L.A.*, 434; "St. Francis Dam Disaster," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>32</sup> "Mulholland Dam and Hollywood Reservoir," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>33</sup> *From Pueblo to Metropolis*, 6.

<sup>34</sup> Fogelson, *Fragmented Metropolis*, 241-242.

that time. But areas annexed or consolidated after 1922 still received power distributed by Edison, and the Bureau of Power and Light continued to purchase a part of its power from Edison.<sup>35</sup>

It was not until 1939 that the City and Edison finally reached an agreement, under which all Edison generating and delivery facilities within the now-much-expanded city limits would become municipally owned. A designated resource related to the City's final acquisition of all Edison property is the Southern California Edison Service Structure (L.A. Historic-Cultural Monument No. 513). Located at 615 East 108<sup>th</sup> Street, the site was outside of the city limits in 1922. The resource is a 1930 Mediterranean Revival style brick building with a Spanish tile hipped roof, and appears to have been at one time a distributing station.<sup>36</sup>

The other private power provider targeted for purchase was the Los Angeles Gas and Electric Company. It remained a significant presence within the city limits until the mid-1930s. In 1936 the voters passed a bond issue to acquire the power business of the LAG&E. This was done by early 1937. A designated resource, Distribution Station Number 31 (L.A. Historic-Cultural Monument No. 410), is related to this acquisition. Located at 1035 West 24<sup>th</sup> Street in West Adams, it was constructed in 1925. It is a two-story brick building, very much in an industrial vernacular style, with a segmented arch over the entrance flanked by two slightly projecting piers.<sup>37</sup>

### **The Architecture of Water-Power-Light, 1916-1941**

As the City expanded its own service and acquired additional systems, it needed more administrative space. In 1921 it bought the Merchants Trust Building at 207 South Broadway to serve as general offices for both water and power. It also needed regional and neighborhood transformer facilities. In 1926 it put forth a plan that called for a system of distribution stations throughout the city, which would allow for the shifting of power from one district to another as needed.<sup>38</sup>

The Bureau of Power and Light saw these local distribution stations as requiring designs of distinction. They should reflect the nobility of benevolent government as well as contribute to the beauty of the neighborhood. During the twenties, this meant the use of the Classical Revival and other historically-

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<sup>35</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 194-195.

<sup>36</sup> The site is contained within the Green Meadow Annexation of 1926, according Annexation and Detachment Map, City of Los Angeles, Navigate LA website; "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Herr, *Landmark L.A.*, 463.; Layne, *Water and Power for a Great City*, 260; The 1927 Sanborn Map for the site shows a structure with the general footprint of the existing building, and identifies it as a substation with open transformers in the rear. The site's original use as a substation or distributing station would explain the rather elegant nature of the design.

<sup>37</sup> "First Electricity in Los Angeles," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Herr, *Landmark L.A.*, 454; Layne, *Water and Power for a Great City*, 256-258. Records show that it may have been designed by Pacifica Gas and Electric architects, but it was built for and used by LAG&E.

<sup>38</sup> Layne, *Water and Power for a Great City*, 196; "Other Power Historical Photos," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

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based styles. In creating these facilities, the Bureau often relied on Frederick Roehrig, an architect noted as a skilled eclectic. An extant example of his work, dating from 1916, is Distributing Station Number 2 (L.A. Historic-Cultural Monument No. 558) in Highland Park.<sup>39</sup>



*Proposed Branch Office, 1936  
S. Charles Lee, Architect  
(Los Angeles Public Library)*

During the 1930s the design focus shifted to lighter and more flamboyant styles. This was particularly true for the increasing number of neighborhood administration offices shared by the water and power bureaus. Even more than the neighborhood distribution stations, these local offices became the architectural face of the municipal utilities. To achieve designs that would attract attention and look up to date, the City used the services of S. Charles Lee, an architect noted for his motion picture theaters.

At least two examples of Lee's work are extant, and both are L.A. Historic-Cultural Monuments. The first is the Water and Power Building (No. 384) at 2417 Daly Street in Lincoln Heights. It was a remodeling of an existing building and appears to have been done around 1937. The other is the Department of Water and Power Building (No. 232) at 5108 Lankershim Boulevard in North Hollywood, which dates from around 1939.<sup>40</sup>

Until the 1930s, water and power had been distinct entities. At the same time, beginning with the construction of the Los Angeles Aqueduct and the installation of hydroelectric power generation, the two had worked together. Starting in 1911 the Bureau of Water Works and Supply and the Bureau of

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<sup>39</sup> Herr, *Landmark L.A.*, 466.

<sup>40</sup> *Ibid.*, 440, 452.

Power and Light operated under the umbrella of the Department of Public Services. By the 1920s the two were sharing single neighborhood offices, under the sign “Water-Power-Light.” In the public mind the two were essentially the same. The two entities finally united into the Department of Water and Power in 1937.<sup>41</sup>

### **The Reach to the Colorado River, 1923-1953**

Despite the increase in water and power supplies produced by the Los Angeles Aqueduct, more of both were soon seen as necessary. Both the Bureau of Water Works and Supply and the Bureau of Power and Light looked east to the Colorado River. Although begun in the 1920s, these efforts would not produce additional supplies until much later.

The water and power endeavors were separate projects. Water was initiated first, in 1923. The Board of Public Service Commissioners authorized Mulholland to make surveys as to the feasibility of building an aqueduct to the Colorado River in October of that year. In 1925 the city voted to pay for preliminary engineering.<sup>42</sup>

Unlike the Owens Valley project, however, this would not be an effort that Los Angeles would carry out on its own. In 1927 the state legislature created the Metropolitan Water District (MWD) as a consortium of municipalities and independent water companies, which together would finance a Colorado River dam and aqueduct, and then share its water. The district would appoint a Chief Engineer to design the aqueduct. Los Angeles joined the district with twelve other entities in 1928, and the planning of the aqueduct was transferred from the City to MWD.<sup>43</sup>

In 1931 Los Angeles and the other entities belonging to MWD passed a bond issue of 220 million dollars to construct Parker Dam and the Colorado River Aqueduct. Given the lack of private banking interest in buying the bonds during the Depression years, the issue was accepted by the federal government’s Reconstruction Finance Corporation, thereby indirectly making it a New Deal project.<sup>44</sup>

Work on the aqueduct and dam began in 1934 and was completed in late 1938. Lake Havasu, which formed behind the Parker Dam, provided the reservoir. (Both are downriver from the better-known Hoover Dam and Lake Mead.) However, it was not until 1941 that Colorado water actually reached Los

Angeles, and not until 1953 that a distribution system, based on receiving Colorado River water into the Eagle Rock Reservoir, was functioning.<sup>45</sup>

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<sup>41</sup> “Construction of the DWP’s General Office Building (GOB),” “Early DWP Branch Offices,” and “Municipal Ownership,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>42</sup> *Los Angeles Department of Water and Power*, 49; *Water for Los Angeles*, 7.

<sup>43</sup> Fogelson, *Fragmented Metropolis*, 102; *Los Angeles Department of Water and Power*, 49; *Water for Los Angeles*, 7.

<sup>44</sup> Fogelson, *Fragmented Metropolis*, 102.

<sup>45</sup> Fogelson, *Fragmented Metropolis*, 102; *Los Angeles Department of Water and Power*, 35.

Unlike water, the provision of power was directly related to the construction of the well-known Hoover Dam. In 1928 Congress passed the long-discussed Boulder Canyon Project Act. This act authorized the construction of Hoover Dam, with the sale of electricity as a means to finance it. Los Angeles, as the primary potential consumer, agreed to purchase a set amount of power. Work began on the dam in 1931 and was completed in 1934.<sup>46</sup>

At the same time, in 1933, the Bureau of Power and Light obtained a federal loan of over 22 million dollars to construct a transmission line from Hoover Dam to Los Angeles. Construction of this 266-mile line proceeded while the dam was being built. Los Angeles was able to receive its first Hoover Dam power in October of 1936. At that time, Hoover Dam could supply over seventy-percent of the city's power needs and the City no longer had to buy electricity from Southern California Edison.<sup>47</sup>

### **The Shift to Steam Generation, 1943-1975**

During the 1920s the city's municipal power came from the hydroelectric plants along the Owens Valley aqueduct, along with additional electricity purchased from Southern California Edison. The Bureau of Power and Light believed that it had to construct its own steam generating plants to meet future demand. But several bond issues put forth to construct steam plants failed.<sup>48</sup>

Nonetheless, in the early 1930s the Bureau began preliminary planning for a steam plant in Wilmington. Work was suspended once construction began on Hoover Dam and the Bureau focused on completing the transmission lines that would bring its power to the city. However, in spite of the power now supplied by Hoover Dam, the Bureau still maintained that additional capacity would be needed in the future, and in 1935 resumed planning for what became the Harbor Steam Plant.<sup>49</sup>

Construction began on the Harbor Plant in 1941-42, just as the United States entered the Second World War. Unit Number One came on line in 1943 and played a role in providing power for defense production in Wilmington and San Pedro. Because of the war, Unit Number Two was not completed until 1947. Three more units were added to the plant by 1950. With its boilers designed to burn either natural gas or fuel oil, the Harbor Plant was a preview of the direction that the DWP would follow in the postwar years.<sup>50</sup>

While planning for its own steam plant in the 1930s, the City also inherited two such facilities when it purchased the power portion of the Los Angeles Gas and Electric Company. One was the historic Alameda Street generating station, which had been functioning in one form or another since 1882. The

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<sup>46</sup> "Construction of Hoover Dam," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>47</sup> "Construction of Hoover Dam," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Fogelson, *Fragmented Metropolis*, 244.

<sup>48</sup> Layne, *Water and Power for a Great City*, 196.

<sup>49</sup> *Ibid.*, 272-275.

<sup>50</sup> *Ibid.*

other, well beyond Los Angeles city limits, was in Seal Beach. It had been built in 1924. Both provided power in the short run, as the City proceeded to build new facilities in the postwar period and then retire the inherited plants.<sup>51</sup>

The growing importance of steam generation was apparent as early as 1950, when it comprised almost half the DWP's supply of electricity. Hoover Dam was still the primary source, providing 41%. The once all-important hydroelectric plants along the Owens Valley aqueduct contributed a mere 10%. The remaining 49% came from steam, including the new Harbor Plant, which provided 36% of the total, and the inherited Alameda and Seal Beach Plants, which together contributed another 13%.<sup>52</sup>

The DWP did not give up on increasing its supply of hydroelectric capacity. The Owens River Gorge Hydroelectric Project, consisting of three new power plants with a combined generating capacity of 110,000 kilowatts, was completed in 1952. But this was a minor contribution compared to the additional capacity gained through the construction of steam plants.<sup>53</sup>

The first of the postwar steam plants was the Valley Generating Station, in Sun Valley. Construction began in 1951 and was complete in 1956. It was capable of generating 510,000 kilowatts. Soon to follow was the Scattergood Generating Station, started in 1957 and completed in 1959. Located along the coast near Playa del Rey, it provided an additional 340,000 kilowatts.<sup>54</sup>

A third steam plant was the Haynes Generating Station, located outside the city limits in Seal Beach. Construction began in 1959 and was not completed until 1967. It was by far the largest of the DWP's steam plants, capable of creating 1,596,000 kilowatts. This was greater than the generating capacity of Hoover Dam.<sup>55</sup>

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<sup>51</sup> "Early Power Generation," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Layne, *Water and Power for a Great City*, 256-258.

<sup>52</sup> Layne, *Water and Power for a Great City*, 275.

<sup>53</sup> *From Pueblo to Metropolis*, 9.

<sup>54</sup> *Ibid.*

<sup>55</sup> *Ibid.*, 9-10.



*Valley Steam Generating Plant, 1951-1956*

*Sun Valley*

*(Los Angeles Public Library)*

Construction of remote plants, well beyond the city limits, continued into the 1970s with the Mohave Steam Generating Plant. Completed in 1971, this was a joint effort of the DWP together with Nevada Power Company and the Salt River Project of Arizona. Its location out of state, in southern Nevada, allowed for the use of coal as a fuel. The DWP was entitled to twenty percent of its capacity of 1,580,000 kilowatts.<sup>56</sup>

This was followed by another even larger coal-burning facility, the Navajo Power Plant, near Page, Arizona. It was a joint project of the DWP, the U.S. Bureau of Reclamation, the Arizona Public Service Company, the Nevada Power Company, the Salt River Project, and the Tucson Electric Power Company. Construction began in 1970 and completed in 1975. The DWP received 21.2 percent of its output of 2,250,000 kilowatts.<sup>57</sup>

Finally, in anticipation of the interstate nature of future power grids, the Pacific Intertie power transmission line began service in May of 1970. This was an 846-mile long transmission line that connected Los Angeles to the Columbia River in Oregon. This allowed for hydroelectric power generated at the Columbia River dams to be delivered to Los Angeles. It also enabled the sale of power

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<sup>56</sup> *From Pueblo to Metropolis*, 11.

<sup>57</sup> *Ibid.*, 12.

among utilities as needed to meet demand. Included in the arrangement were such local entities as SCE and the municipal power departments of Pasadena, Glendale, and Burbank.<sup>58</sup>

### **Water for the Postwar Period, 1947-1973**

In response to the city's growth after the Second World War, the DWP undertook the construction of additional water storage capacity near expanding districts. Several new reservoirs were built, including the Eagle Rock, the Green Verdugo, and the Upper Stone Canyon.<sup>59</sup>

But one in particular, the Baldwin Hills, became infamous. Preliminary work on the reservoir, with its earthen dam, began in 1947. It was at that time the single largest project in the DWP's postwar construction program. It was also unique at the time in its use of a cotton fabric impregnated with asphalt as a lining. The project was completed in 1951.<sup>60</sup>

On December 14, 1963, a breach opened in the dam, spilling water toward the north. Buildings were torn apart and cars were swept away along Cloverdale Avenue. Five individuals lost their lives, sixty-five homes were destroyed, and 210 other structures were damaged. Much of the district, including the Baldwin Hills Village (L.A. Historic-Cultural Monument No. 174) was flooded. The breach in the dam was attributed to subsidence caused by extractions from the nearby Inglewood oil field (Kenneth Hahn State Recreational Area now occupies the site).<sup>61</sup>

In addition to more storage, the DWP also sought new sources of supply. Fear of reallocation of Colorado water led the Department to look to improving delivery of water from the Eastern Sierra watershed. In 1963 it announced plans for a second Los Angeles Aqueduct. Construction began in 1964 and was completed in 1970. This increased the capacity of the aqueduct system by about fifty percent. In 1977 the Los Angeles Reservoir replaced the two older reservoirs at the base of the aqueducts as a new terminal storage facility.<sup>62</sup>

At the same time, the MWD greatly increased its resources by becoming part of the State Water Project. The project allowed for the diversion of water from the northern part of the state by means of the California Aqueduct, which was constructed to run the length of the Central Valley. In 1960 the District contracted to gain a portion of the water. The first phase was completed in 1973.<sup>63</sup>

The future needs of Los Angeles were taken into consideration in the planning for the State Water Project. The west branch of the California Aqueduct supplies water to the Pyramid and Castaic

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<sup>58</sup> *From Pueblo to Metropolis*, 12.

<sup>59</sup> *Ibid.*, 9.

<sup>60</sup> Layne, *Water and Power for a Great City*, 293-294.

<sup>61</sup> Commentary to "Walls that failed to hold back disaster" (order number 00117246), Photo Collection, Los Angeles Public Library; *Los Angeles Times*, December 13 and 14, 2013.

<sup>62</sup> *From Pueblo to Metropolis*, 10-11; *Water for Los Angeles*, 5.

<sup>63</sup> *Water for Los Angeles*, 7-8.

Reservoirs, located north of the city on either sides of Interstate 5. The Foothill Feeder connects the southern end of the Castaic Reservoir to the Joseph Jensen Treatment Plant, placed at the northern end of the Los Angeles Reservoir complex.<sup>64</sup>

Initially the capacity was not needed. By the late 1970s Los Angeles used only about six percent of its rights to water from the MWD. Eighty percent of the city's water still came from the two Los Angeles Aqueducts and seventeen percent from local ground sources, which consisted of 116 active wells located primarily in the San Fernando Valley. Only three percent came from the District's Colorado River Aqueduct and State Water Project.<sup>65</sup>

Along with supplying water, completion of these postwar projects allowed for a modest increase in hydroelectric production. The Foothill Generating Plant, completed in 1971, is located at the terminus of the Second Los Angeles Aqueduct in the San Fernando Valley, as it reached the Los Angeles Reservoir complex. This plant was planned to generate 11,000 kilowatts.<sup>66</sup>

A second facility was the Castaic Power Plant, located north of the city and completed in 1973. It was built at the base of the tunnel that connects the higher Pyramid Reservoir with the lower Castaic Reservoir. It was intended as a peaking capacity plant, to be used at times of high demand. During off-peak hours, the generators are converted to motors, the turbines act as pumps, and water is lifted back up to Pyramid Lake. This arrangement is referred to as a pumped storage hydroelectric project.<sup>67</sup>

By the late 1970s a water distribution system had been put into place that depended, as before, upon a number of district reservoirs. Serving the San Fernando Valley were the Encino Reservoir and the Green Verdugo Reservoir, between Shadow Hills and Sunland. The Santa Ynez Reservoir in Palisades Highlands served the far western portions of the West Side. The Upper and Lower Stone Canyon Reservoirs, above Bel Air, and the Upper and Lower Franklin Canyon Reservoirs, within the city limits north of Beverly Hills, provided for the areas west of the historic Hollywood and Silver Lake Reservoirs. The Eagle Rock Reservoir served the northeast. The far south harbor districts depended upon the San Pedro Reservoir, enhanced by deliveries from the Metropolitan Water District's Palos Verdes Reservoir.<sup>68</sup>

### **DWP Architecture in the Postwar Period, 1945-1970**

The Department of Water and Power announced in 1945 that it would launch a ten-year, 125 million dollar building program as a means to deliver electrical service to the expanding city. In addition to the

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<sup>64</sup> "About Your Water: Quality and Treatment," Metropolitan Water District of Southern California website, [www.mwdh2o.com](http://www.mwdh2o.com).

<sup>65</sup> *Water for Los Angeles*, 3, 7. By 2011-2015 the MWD supplied 57%, Los Angeles Aqueduct 29%, ground water 12% and recycled water 2%. From the *Los Angeles Times*, August 28, 2016.

<sup>66</sup> *From Pueblo to Metropolis*, 13.

<sup>67</sup> *Ibid.*, 12.

<sup>68</sup> *Water for Los Angeles*, System Map.

expansion of production capacity, there would be new transmission lines and new receiving and distributing stations, particularly on the West Side and in the San Fernando Valley.<sup>69</sup>

The department made a conscious effort to design facilities that would, by scale and materials, fit the suburban neighborhoods into which they were placed. This was particularly true for the San Fernando Valley and for the newer districts of Brentwood, Mar Vista, and Westchester. Unlike its prewar projects, the DWP typically relied on its in-house design, engineering, and construction staff to create these neighborhood facilities.<sup>70</sup>

The DWP literature committed the department to discrete neighborhood facilities. It promised “professional landscaping, low profiles and unobtrusive design of facilities” that would “complement neighborhoods in which they are located.”<sup>71</sup> Along with this domestic-scaled architecture came a program to familiarize residents with the work of the DWP. The department sent literature to customers and conducted open houses at recently completed facilities. Also on exhibit were the latest in electrical appliances.<sup>72</sup>

These postwar designs were in marked contrast to prewar neighborhood facilities, such as distributing stations and administration offices, which were meant to stand out as monumental landmarks or highly visible symbols of advanced technology and administration. In part it was due to the non-monumental nature of postwar modernism. But it also appears to have been part of an effort to move away from the New Deal-era impulse to use architecture as a symbol of government’s presence in everyday life.

Architecturally the most impressive of the postwar structures was the DWP General Office Building (L.A. Historic-Cultural Monument No. 1022). Here the late Corporate Modernist style used by Downtown commercial buildings fit well with the self-image of the Department as an efficient and business-like provider of public services. It was designed by Albert C. Martin and Associates and completed in 1964. It is particularly effective when lit at night.<sup>73</sup>

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<sup>69</sup> *Los Angeles Times*, September 14, 1945.

<sup>70</sup> *Los Angeles Department of Water and Power*, 42.

<sup>71</sup> *Water for Los Angeles*, 9.

<sup>72</sup> *Los Angeles Department of Water and Power*, 42.

<sup>73</sup> David Gebhard and Robert Winter, *Architectural Guidebook to Los Angeles*, Revised Edition (Salt Lake City: Gibbs Smith, 2003), 258.



*DWP General Office Building, 1964  
L.A. Historic-Cultural Monument No. 1022  
(Los Angeles Public Library)*

### **Challenges Since 1970**

The decade of the seventies brought several challenges to the optimistic construction programs of the earlier decade. Some of these challenges were budgetary. Others were products of nature. Still others came about from the growing consciousness of the need for environmental protection.

By the end of the 1960s the construction program of the postwar era was generally complete. The early 1970s was a period of increasing austerity, and the reality of limited resources continued into the following years. Attention shifted toward maintenance and upgrading, as older parts of the system began to show their age.<sup>74</sup>

Among the natural challenges, perhaps the most significant was the San Fernando Earthquake of 1971, it damaged the existing reservoirs at the foot of the Los Angeles Aqueduct and brought about their replacement by the Los Angeles Reservoir, completed in 1977. The earthquake also led the Department to conduct a survey of its other existing facilities. As a result, the Silver Lake Reservoir dam was replaced, also in 1977, and construction began for the replacement of Lower Franklin in 1980.<sup>75</sup>

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<sup>74</sup> *Los Angeles Times*, September 11, 1971.

<sup>75</sup> *From Pueblo to Metropolis*, 11.

Two legislative initiatives from the 1970s required the DWP to take the environmental impact of its actions into account. The first was the California Environmental Quality Act (CEQA) of 1970. It required the Department to consider the environmental impact of any new installation before gaining approval. The DWP prepared its first Environmental Impact Statement in 1973 for the Distribution Station 112 in Playa del Rey.<sup>76</sup>

The other initiative was the Safe Drinking Act of 1974. This required the construction of water filtration plants. The most important was the facility at the Los Angeles Reservoir complex, which treats water from the aqueduct. Construction began in 1983. Also proposed in the late 1970s was an aeration facility in North Hollywood to treat well water from the San Fernando Valley groundwater basin.<sup>77</sup>

Finally, in 1970 the Interagency Committee on Owens Valley Land and Wildlife came into being. Membership consisted of several federal, state, county, and city agencies. The goal was finally to address the decades-long conflict among the interested parties as to the fate of the Owens Valley. In 1982 the County of Inyo and the City of Los Angeles formally agreed to work together on future water needs of both entities.<sup>78</sup>

In more recent times, perhaps the regulation having the largest impact on existing historic resources came from the federal Environmental Protection Agency. It ruled in 2006 that reservoirs storing potable water must be covered. This led the DWP to decommission Silver Lake and Ivanhoe, and to replace them with a new underground facility near Griffith Park.

### **Names Used for Water and Power Entities between 1902 and 1980**

- For work on water-related resources between 1902 and 1911, the entity is the Department of Water
- For work related to the construction of the first Los Angeles Aqueduct, the entity is the Bureau of the L.A. Aqueduct
- For work on water-related resources between 1911 and 1937, the entity is the Bureau of Water Works and Supply, under the supervision of the Department of Public Services
- For work on power-related resources between 1911 and 1937, the entity is the Bureau of Power and Light, also under the Department of Public Services
- For all work after 1937, the entity is the Department of Water and Power (DWP)

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<sup>76</sup> *Los Angeles Department of Water and Power*, 47.

<sup>77</sup> *From Pueblo to Metropolis*, 14; *Los Angeles Department of Water and Power*, 36-37.

<sup>78</sup> *From Pueblo to Metropolis*, 16.

**SUB-THEME: RESERVOIRS, DAMS, AND WATER SUPPLY INFRASTRUCTURE**

Reservoirs, Dams, and Water Supply Infrastructure can best be divided into three groups, based on chronology. The first includes those that date from before the completion of the Los Angeles Aqueduct in 1913. The second is made up of those built between 1913 and the coming of the Second World War in 1941. The third consists of resources that date from after the end of the war in 1945.

There are two designated resources that date from the first period, between 1902 and 1913. The first is the storage complex known as the Ivanhoe and Silver Lake Reservoirs (L.A. Historic-Cultural Monument No. 422). The City had acquired a portion of the land for these projects in the 1880s, and obtained the rest through condemnation in 1904. The Ivanhoe, placed in service in 1906, is the smaller portion at the north end of the complex and was originally covered by a timber roof when completed.<sup>79</sup>



*Silver Lake Dam (original) and Reservoir, 1907  
L.A. Historic-Cultural Monument No. 422  
(Los Angeles Public Library)*

The much larger Silver Lake Reservoir, directly to the south, was completed one year later, in 1907. From the beginning, unlike the covered Ivanhoe, Silver Lake was intended to be a scenic amenity for its neighborhood. It was left unfenced, surrounded by landscaping and stocked with black bass. (See the Historic Context for the fate of the two reservoirs in later years.)<sup>80</sup>

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<sup>79</sup> The Ivanhoe was enlarged in 1952, taken out of service in 1993, and put back into service in 1994. “Early Los Angeles Water Reservoirs,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>80</sup> The Silver Lake was expanded in 1932. The original dam was replaced in 1977, after the 1971 San Fernando Earthquake led to the upgrading of dams built by hydraulic sluicing or fill. See “Early Los Angeles Water Reservoirs,

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The second designated resource is the Garvanza Pumping Station and Site of the Highland Reservoir (L.A. Historic-Cultural Monument No. 412). The reservoir, now replaced by a tank, appears to have dated from the 1880s and was inherited by the City in 1902. The Department of Water constructed a pump house in 1907, which is still intact. It is a spare classical form, with a strong continuous cornice and side pilasters. Notable are the stepped gable ends featuring circular openings.<sup>81</sup>



*Garvanza Pumping Station, 1907*  
*L.A. Historic-Cultural Monument No. 412*  
*(L.A. Office of Historic Resources)*

The Garvanza Station may well have been based on a standard design. There is an extant pump house at 1022 Eubank Avenue in Wilmington that appears to be identical. It dates from 1910. Its origins are obscure, but most likely it was constructed to house pumps that drew water from an existing well on the site. Wilmington had been an independent city with a privately-owned water system up until its consolidation with Los Angeles in 1909.<sup>82</sup>

Resources relating to the second period of construction, from the opening of the aqueduct in 1913 to the beginning of the Second World War in 1941, consist of the aqueduct itself and facilities that stored and distributed water delivered by the aqueduct. There are many significant structures associated with

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<sup>81</sup>“Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum);and *From Pueblo to Metropolis* (Los Angeles: Department of Water and Power, 1986), 11.

<sup>81</sup> Herr, *Landmark L.A.*, 454.

<sup>82</sup> Wilmington-Harbor City Community Plan Area, Individual Resources Report, SurveyLA. The 1921 Sanborn Map shows a small reservoir adjacent to the pump house.

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the aqueduct, but most are located outside the city limits. Of those within the limits the most impressive is the First Los Angeles Aqueduct Cascade in Sylmar (L.A. Historic-Cultural Monument No. 742).<sup>83</sup> Built at the base of the aqueduct was the lower San Fernando Reservoir (also called the lower Van Norman Reservoir). Soon thereafter came a number of reservoirs designed to serve specific areas. The first was the Chatsworth Reservoir in 1919, followed between 1921 and 1929 by the upper San Fernando or Van Norman (now part of the Los Angeles Reservoir), Stone Canyon, Encino, and Hollywood Reservoirs.<sup>84</sup>



*Mulholland Dam, 1923-1924, before fill and landscaping  
Los Angeles Historic-Cultural Monument No. 421  
(Los Angeles Public Library)*

Of these 1920s projects the most significant extant resource is the Mulholland Dam and Hollywood Reservoir (L.A. Historic-Cultural Monument No. 421). They are located in Weid Canyon, just to the east of Cahuenga Pass in the hills above Hollywood. The dam is a concrete-arched gravity design constructed between August of 1923 and December of 1924, under the direct supervision of William Mulholland. It was connected to both the aqueduct and to the wells in the San Fernando Valley.<sup>85</sup>

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<sup>83</sup> “Early Los Angeles Water Reservoirs,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>84</sup> “Early Los Angeles Water Reservoirs,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum): *From Pueblo to Metropolis*, 5.

<sup>85</sup> Herr, *Landmark L.A.*, 455; “Mulholland Dam and Hollywood Reservoir,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

The design of the Mulholland Dam was similar to that of the St. Francis Dam. After the failure of the St. Francis in 1928, the City placed tons of earth at the base of the Mulholland as reinforcement, and then landscaped the fill. The result was the disappearance of the dam as a visible entity from Hollywood below.<sup>86</sup>



*Mulholland Dam and Hollywood Reservoir, circa 1940, after fill and landscaping  
Los Angeles Historic-Cultural Monument No. 421  
(Los Angeles Public Library)*

More common, if not as architecturally impressive, are the small pump stations and storage tanks located in high elevations. Typical is the Laurel Canyon Pumping Station, at 11300 Dona Dorotea Drive. The Laurel Canyon Station includes an original facility, designed in a Spanish Colonial Revival style, from 1930 and a later, more utilitarian structure from 1950. Behind these two structures is a large round storage tank, well hidden from view by landscaping.<sup>87</sup>

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<sup>86</sup> "Mulholland Dam and Hollywood Reservoir," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>87</sup> Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan Area, Individual Resources Report, SurveyLA.



*Laurel Canyon Pumping Station, circa 1930 and 1950  
11300 Dona Dorotea Drive, Studio City  
(SurveyLA)*

The third period of construction, between 1945 and 1980, consists of facilities to handle increased supplies coming from the Second Los Angeles Aqueduct and from the Metropolitan Water District. A wave of construction in the 1950s included the Eagle Rock, Green Verdugo, and Upper Stone Canyon Reservoirs, and was concerned with distributing water delivered from the MWD's Colorado River Aqueduct. (The fate of an additional facility from this period, the Baldwin Hills Reservoir, is discussed in the Historic Context.)<sup>88</sup>

Of particular significance among these 1950s-era reservoirs is the Eagle Rock. It received the city's initial portion of water from the Colorado River, delivered via pipeline from Lake Mathews in Riverside County. From there the water was distributed to the rest of the city's system. The reservoir is located just north of the 134 Freeway and west of the border with Pasadena. Construction on the Eagle Rock began in 1952 and it was completed in August of 1953. The Eagle Rock-Hollywood Conduit was finished in 1956. This 68-inch pipeline extended for ten miles and allowed water from the Eagle Rock reservoir to be distributed to the rest of the system.<sup>89</sup>

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<sup>88</sup> *From Pueblo to Metropolis*, 9.

<sup>89</sup> *Ibid.*



*Eagle Rock Reservoir, 1952-1953  
(Los Angeles Public Library)*

Following the San Fernando Earthquake of 1971, the DWP focused on upgrading, expanding, and/or replacing existing dams and reservoirs. These improvements accommodated additional supplies that came with the completion of the Second Los Angeles Aqueduct in 1970 and with additional water supplied by the State Water Project to the Metropolitan Water District. The replacement of the Upper and Lower San Fernando/Van Norman Reservoirs with the Los Angeles Reservoir, at the point of delivery of both of the Los Angeles Aqueducts as well as MWD's supplies from Castaic Lake, was the most important of these improvements.<sup>90</sup>

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<sup>90</sup> Ibid., 10-13.

**SUB-THEME: RESERVOIRS, DAMS, AND WATER SUPPLY INFRASTRUCTURE**

**Summary Statement of Significance:** The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Reservoirs, dams, and water supply infrastructure are structures constructed for the purpose of storing, retaining, and distributing water.

Resources related to reservoirs, dams, and water supply may be significant in the areas of Engineering, Architecture, and/or Community Planning and Development. They illustrate technological innovations in civil engineering relating to the development of the city's water storage and distribution system. They also illustrate how these engineering achievements used architectural designs and forms to fit into different urban settings and may be excellent examples of their respective styles. Associated resources also reflect significant trends in community planning relating to the expansion of publicly-owned utilities to provide water and power services to a city growing in both area and population.

**Period of Significance:** 1902-1980

**Period of Significance Justification:** The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA.

**Geographic Location:** Citywide

**Areas of Significance:** Engineering, Architecture, Community Planning and Development

**Criteria:** NR: A/C      CR: 1/3      Local: 1/3

**Associated Property Type:** Infrastructure-Water & Power – Reservoir  
Infrastructure-Water & Power – Dam  
Infrastructure-Water & Power – Pumping Station

**Property Type Description:** Reservoir – Facility for storage of water  
Dam – Structure to retain water

Pumping Station – Facility to house machinery for water distribution

**Property Type Significance:** See Summary Statement of Significance above.

**Eligibility Standards:**

- Was constructed during the period of significance
- Provides for water storage and/or delivery
- Located along a path of water delivery and/or distribution

**Character Defining / Associative Features:**

- Retains most of the essential character defining features from the period of significance
- Of an engineering and/or architectural form/style typical of the 1902-1980 period
  - May also be significant under themes within the Architecture and Engineering context
- Illustrates technological innovations in civil engineering relating to the history and development of the city's water storage and distribution system
- Reflects significant trends in community planning relating to the expansion of publicly-owned utilities
  - Associated with the physical growth of the city during the 1902-1980 period

**Integrity Considerations:**

- Should retain integrity of Design, Materials, Location, Feeling, and Association
- Engineering and/or architectural integrity should be intact, retaining original massing, significant features, and identifying details
  - Minor engineering and/or architectural changes to details and materials are allowed
- Should include maintenance of original equipment and/or materials as much as possible
- Should maintain association with the engineering requirements that gave it form
- Adjacent setting (land uses) may have changed

**SUB-THEME: POWER GENERATION**

Resources related to power generation fall into two distinct categories. The first consists of the early hydroelectric facilities that contained generators within buildings that could be designed as traditional architectural entities. The second consists of the later steam generating facilities that, because of their size and complexity, take forms determined by engineering needs alone.

Most of the hydroelectric generating facilities using water from the first Los Angeles Aqueduct were built outside the city limits. But one small hydroelectric plant fed by the aqueduct was located within these boundaries. This was the San Fernando Power Plant, at the base of the Cascade. It was served by a tailrace, or channel, that directed a stream of descending water through generators housed in the building. Constructed in 1917, historic photos show it to be a single volume in a simplified Classical Revival style that resembled the PWA Modern of later years.<sup>91</sup>



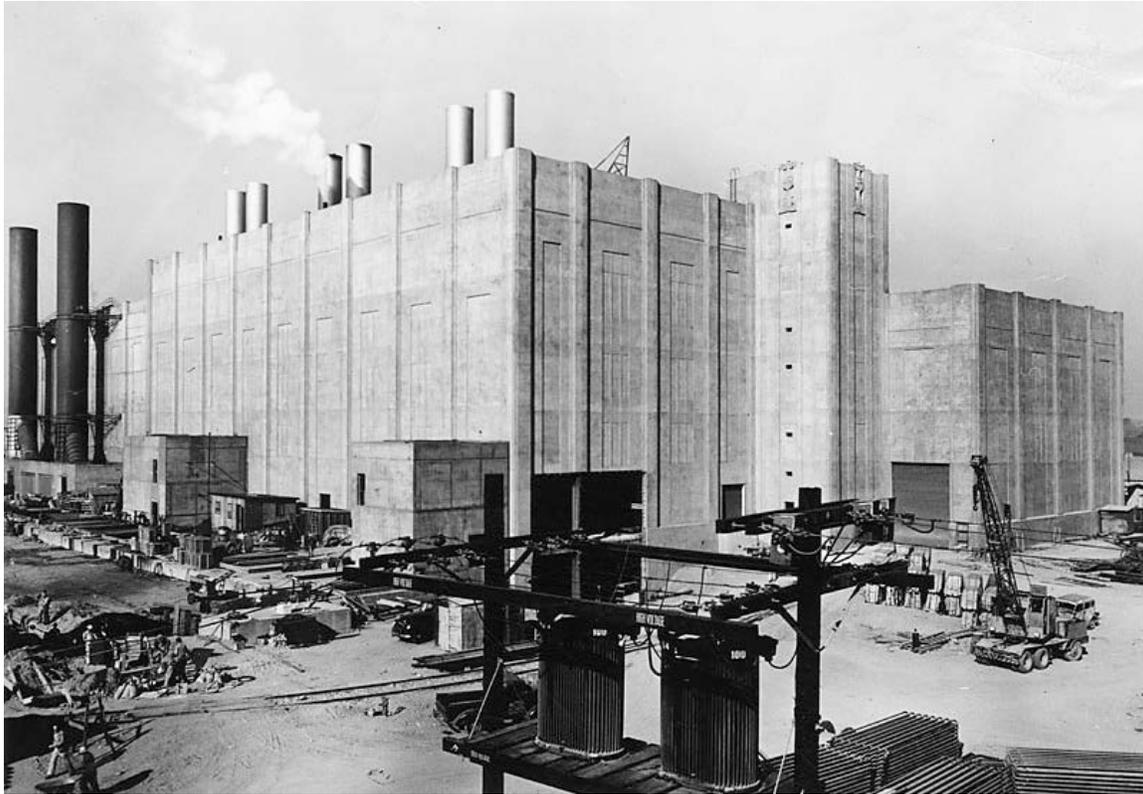
*San Fernando Power Plant, 1917  
Located at the base of the first Los Angeles Aqueduct, Sylmar  
(Los Angeles Department of Water and Power)*

By the 1930s the Bureau realized that it could not continue to rely on hydroelectric power alone. Planning for the first new non-hydro facility, the Harbor Steam Generating Plant in Wilmington, began in

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<sup>91</sup> “Early Power Generation” and “Electricity on the Aqueduct,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum). The current status of this building is unclear. It is presumably within the ensemble of DWP structures north of the Los Angeles Reservoir. Nothing resembling the historic photo is visible from the public right-of-way.

the early 1930s. Work was suspended as activity focused on completing the link to Hoover Dam, but resumed in the late 1930s. The first unit was in operation by 1943 and, after another pause caused by the Second World War, the complex came fully on line by 1950.<sup>92</sup>



*Harbor Steam Generating Plant, 1941-1950  
Wilmington  
(Los Angeles Public Library)*

The Harbor Plant, like later steam facilities, is primarily a work of engineering. Located on the southwest corner of Harry Bridges Boulevard and Island Avenue, it continues to evolve based on technological requirements rather than aesthetic considerations. Nonetheless, it and the two later steam plants are landmarks, based on their size and the sometimes elegant forms of their engineering.

Two others within the city limits followed the completion of the Harbor. Work began on the Valley Generating Plant in 1951 and was completed in 1956. It is located at 11805 Sheldon Street in Sun Valley. The Scattergood Generating Plant came a bit later. It sent out its first power in 1958 and was formally dedicated in 1959. It is located along the coast just south of Los Angeles International Airport at 12700 Vista del Mar in Playa del Rey.<sup>93</sup>

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<sup>92</sup> "Early Power Generation," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); *From Pueblo to Metropolis*, 8.

<sup>93</sup> "Early Power Generation," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); *From Pueblo to Metropolis*, 9.



*Aerial View of Valley Steam Generating Plant, 1951-1956  
Sun Valley  
(Los Angeles Public Library)*

Into the 1960s, the DWP continued to rely on steam generation and, as with its earlier hydroelectric facilities, sited its increasingly larger plants outside the city limits. But in 1971 the Department returned to hydroelectric power and placed one of its facilities within the city limits. The Foothill Generating Plant sits at the base of the second Los Angeles Aqueduct alongside the 5 Freeway at the north end of the complex that contains the Los Angeles Reservoir and the Joseph Jensen Treatment Plant. (The current complex of structures visible to the public makes it difficult to identify significant resources associated with this plant.)<sup>94</sup>

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<sup>94</sup> *From Pueblo to Metropolis*, 13.

**PROPERTY TYPES: POWER GENERATION**

**Summary Statement of Significance:** The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Power generating resources are single buildings or engineered complexes constructed for the purpose of generating power.

Resources related to the generation of power are significant in the areas of Engineering, Architecture, and/or Community Planning and Development. They illustrate technological innovations in civil engineering with regard to the generation of electric power by water and by stream. Associated resources may also be excellent examples of architectural styles from the period of construction. Power generation resources reflect significant trends in community planning relating to the expansion of publicly-owned utilities to provide water and power services to a city growing in both area and population. Resources may be individual buildings/structures or historic districts.

**Period of Significance:** 1902-1980

**Period of Significance Justification:** The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA.

**Geographic Location:** Citywide, within the current boundaries of Los Angeles

**Areas of Significance:** Engineering, Architecture, Community Planning and Development

**Criteria:** NR: A/C      CR: 1/3      Local: 1/3

**Associated Property Type:** Infrastructure-Water & Power – Power Generation

**Property Type Description:** Power Generation – Single buildings/structures or ensembles housing machinery for generating power. Ensembles may comprise historic districts.

**Property Type Significance:** See Summary Statement of Significance above.

**Eligibility Standards:**

- Was constructed during the period of significance
- Provides for power generation
- Contains engineering and/or site layout features that reflect the power generating practices of the day, either hydroelectric or steam

**Character Defining / Associative Features:**

- Retains most of the essential character defining features from the period of significance
- Of an engineering form and/or architectural style typical of the 1902-1980 period
  - May also be significant under themes within the Architecture and Engineering context
- Illustrates technological innovations in civil engineering relating to the history and development of the city's water and power system
- Reflects significant trends in community planning relating to the expansion of publicly-owned utilities
  - Associated with the physical growth of the city during the 1902-1980 period

**Integrity Considerations:**

- Should retain integrity of Design, Materials, Location, Feeling, and Association
- Engineering and/or architectural integrity should be intact, retaining original massing, significant features, and identifying details
  - Minor engineering and/or architectural changes to details and materials are allowed
- Should include maintenance of original equipment and/or materials as much as possible
- Should maintain association with the engineering requirements that gave it form
- Adjacent setting (land uses) may have changed

**SUB-THEME: POWER RECEIVING AND DISTRIBUTING STATIONS**

Power receiving and distributing stations take an engineering function and fit it into a community setting. This is particularly the case with the distributing stations, which are placed in residential or commercial neighborhoods. There is a pronounced difference between resources built before the Second World War and those that came after. The prewar resources were designed as distinctly monumental entities, intended to be amenities to enhance their communities and to show the importance of public power in the lives of city residents. Those resources built after 1945 are much more reticent, working to blend into, and not stand out from, surrounding structures. This is due in part to the non-monumental nature of postwar Modernism, but also apparently to a conscious decision on the part of the DWP to act as a modest neighbor.

**Receiving Stations, 1916-1940**

Receiving stations differ from distributing stations in that they require a much greater footprint, larger transformers and other equipment, and links to high-voltage lines on towers. Intact receiving stations from the 1916-1940 period serve as good examples of the type. One is Station B, which dates from 1926 and is located at 9615 South Central Avenue.



*Receiving Station B, 1926  
9615 South Central Avenue, Southeast Los Angeles  
(SurveyLA)*

The site occupies several square blocks, extending from 94<sup>th</sup> Street on the north to Century Boulevard on the south and from Central Avenue on the east to Clovis Avenue on the west. The two-story reinforced concrete control building is an excellent example of the Classical Revival style. It consists of a

central bay and side wings. It is set back from Central Avenue with extensive landscaping in front. This control building is much larger than those of later receiving stations, and resembles a public school of the era.<sup>95</sup>



*Control Room, Receiving Station B  
(Los Angeles Department of Power and Light)*

Of particular interest is an historic photo of the control room in Station B. It was highly ornate for a facility designed to house monitoring equipment, and may have initially been intended as some sort of public space. Notable are the gridded skylight, the molded cornice, the pilastered walls, the door surrounds, and the gridded floor that appears to reflect the skylight.

Another prewar receiving station is Station E. It is located just west of the city boundary with Burbank in North Hollywood, on the northeast corner of Cahuenga Boulevard and Whitnall Highway. Completed in 1938, its control building is much smaller than that found in Station B, but nonetheless monumental in intent. Set back from the Whitnall Highway behind a small lawn with trees, it is an elegant example of the late PWA Modern, with touches of Art Deco or Hollywood Regency.<sup>96</sup>

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<sup>95</sup>From *Pueblo to Metropolis*, System Map; Southeast Los Angeles Community Plan Area, Individual Resources Report, SurveyLA.

<sup>96</sup> From *Pueblo to Metropolis*, System Map; North Hollywood-Valley Village Community Plan Area, Individual Resources Report, SurveyLA.



*Control Building, Receiving Station E, 1938  
Cahuenga Boulevard and Whitnall Highway, North Hollywood  
(Survey LA)*

A third prewar receiving station is Station C, at 1635 North Eubank Avenue in Wilmington. It was completed in 1941 and is one of two receiving stations designed to accept power from the Harbor Generating Station, at that time in its planning stage (see the section on Power Generating). Located in the more industrial Wilmington, the control building is placed directly on the street with no setback.<sup>97</sup>

### **Distributing Stations, 1916-1940**

The distributing stations of the 1920s and 1930 are perhaps the most memorable of the Bureau of Power and Light's building types. They are plentiful, easily visible, and designed to act as neighborhood landmarks. They made good use of the historically-inspired architectural styles of the period, styles which adapted themselves well to monumentality, even at a small scale.

In designing many of these neighborhood distributing stations, the Bureau employed Frederick L. Roehrig as a consulting architect. Roehrig (1857-1948) has been described by one architectural historian as having a reputation for "wild eclecticism."<sup>98</sup> He was willing to work in any style. An 1883 graduate of the architectural program at Cornell University, he moved to Pasadena in 1886 and began his career as a

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<sup>97</sup> *From Pueblo to Metropolis*, System Map; Wilmington-Harbor City Community Plan Area, Individual Resources Report, SurveyLA.

<sup>98</sup> Robert Winter, "Frederick Louis Roehrig," in *Toward a Simpler Way of Life: The Arts and Crafts Architects of California*, edited by Robert Winter (Berkeley & Los Angeles: University of California Press, 1997), 111.

designer of large homes for the well off. His best-known work is an 1893 addition to that city's Hotel Green, which included the extant bridge across Raymond Avenue.<sup>99</sup>



*Distributing Station Number 2, 1916*  
*L.A. Historic-Cultural Monument No. 558*  
*(L.A. Office of Historic Resources)*

Roehrig later opened a practice in Los Angeles and began his long association with the Bureau of Power and Light. An early result of this collaboration was Distributing Station Number 2 (L.A. Historic-Cultural Monument No. 558). It serves Highland Park and is located at 225 North Avenue 61. It is a prime example of the Classical Revival form. It goes so far as to include a portico complete with Tuscan colonnade for a building that was not meant for public access.<sup>100</sup>

The November 1929 issue of *Architect and Engineer* contains an article by Roehrig, in which he discusses his work for the Bureau of Light and Power. It asserts that Los Angeles has structures containing electrical equipment “befitting the pride she has manifested in her churches, libraries, and other civic buildings.”<sup>101</sup> Roehrig and the Bureau’s engineers worked to give the buildings “an architectural expression of dignity and repose in keeping with their function, and at the same time be an aesthetic asset to the neighborhoods in which they stand.”<sup>102</sup>

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<sup>99</sup> Winter, “Frederick Louis Roehrig,” 112-113.

<sup>100</sup> “Early Power Distribution Stations.” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum). Herr, *Landmark L.A.*, 466. The building was constructed in stages. The first consisted of the portion to the left of the colonnade. Later, the central portion with the colonnade and the right portion were added.

<sup>101</sup> Frederick L. Roehrig, “Los Angeles Power and Light Plants,” *Architect and Engineer*, 99 (November 1929), 75.

<sup>102</sup> Roehrig, “Los Angeles Power and Light Plants,” 75.

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The basic approach employed in designing these buildings was that of monumentality through the use of “simple lines” and “good proportions.”<sup>103</sup> Any applied ornament was “placed to accentuate constructive details and masses.”<sup>104</sup> A trapezoidal form, “employing only one constructive principle of square headed openings,” was common and fit well with the typical reinforced concrete construction finished with stucco.<sup>105</sup>

By the mid-1920s, the Bureau of Power and Light had developed a standard design for its larger distributing stations, with Roehrig as the apparent designer, which reflected these principles. By 1929 five stations had been built using the same design. The plans were rectangular, two stories in height, with single story wings to house additional equipment. The roofs were flat, allowing for the installation of armatures to support lines receiving and distributing power.<sup>106</sup>



*Distributing Station Number 4, 1928-1929  
5716 South Figueroa Street, Southeast Los Angeles  
(SurveyLA)*

Extant distributing stations that are examples of this design include Number 4 on the northeast corner of Figueroa and 58<sup>th</sup> Streets, Number 13 on the northeast corner of Normandie Avenue and 35<sup>th</sup> Place,

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<sup>103</sup> Roehrig, “Los Angeles Power and Light Plants,” 75.

<sup>104</sup> Ibid.

<sup>105</sup> Ibid.

<sup>106</sup> “Early Power Distributing Stations,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Roehrig, “Los Angeles Power and Light Plants,” 75-76. Roehrig calls out Station 19 on Trinity Street, discussed below, as his work.

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### Public and Private Institutional Development/Municipal Infrastructure and Services/Water and Power

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Number 15 on the northeast corner of Commonwealth Avenue and Clinton Street, and Number 19 on the southeast corner of Trinity and 30<sup>th</sup> Streets. All were completed between 1925 and 1929.<sup>107</sup>

These four illustrate the ideals outlined in Roehrig's article for the larger distributing stations. They serve as landmarks, symbolic of the role of city government in neighborhood life. They were all placed on corner sites and set back behind lawns and landscaping. Particularly interesting is the dominant entry with monumental stairs on the façade of a building that was closed to the general public.

A second Roehrig design, also featured in *Architect and Engineer*, shows a different approach for smaller distributing stations. This is Number 44, from 1928, at 911 Lincoln Boulevard in Venice. Here the one-story structure, without wings, is of steel frame construction with an exterior of brick. The cornice, pilasters, and door and window surrounds are of red, purple, and tan ruffle brick left exposed, while the panels are common brick covered with stucco. The frieze below the cornice is pre-cast stone, of a color to harmonize with the panels, and contains the seal of the city of Los Angeles, flanked by lions "symbolical of power."<sup>108</sup>



*Distributing Station Number 44, 1928  
911 Lincoln Boulevard, Venice  
(Los Angeles Department of Water and Power)*

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<sup>107</sup> South Los Angeles Community Plan Area, Individual Resources Report, SurveyLA; Southeast Los Angeles Community Plan Area, Individual Resources Report, SurveyLA; Wilshire Community Plan Area, Individual Resources Report, SurveyLA.

<sup>108</sup> "Early Power Distributing Stations," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Roehrig, "Los Angeles Power and Light Plants," 76; Venice Community Plan Area, Individual Resources Report, SurveyLA.

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### Public and Private Institutional Development/Municipal Infrastructure and Services/Water and Power

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Not all the distributing stations of the era followed these trapezoidal prototypes. Typical of variations is the Renaissance Revival design for Number 32, built in 1928. It is located on the west side of South Woodland Avenue, between 43<sup>rd</sup> Street and Vernon Avenue. Although it backs up against the wider San Pedro Place, an extension of San Pedro Street to the north, it fronts on the then-residential Woodlawn. The mid-block lot is relatively narrow, leaving no room for the wings of the standard design. But, if anything, Number 32 is more ornate than the prototype, again featuring a monumentally symmetrical composition centered on the entry. It varies from Roehrig's formula with its arched openings.<sup>109</sup>



*Distributing Station Number 32, 1928*  
*4332 South Woodlawn Avenue, Southeast Los Angeles*  
*(SurveyLA)*

The distributing stations from the 1930s took on the architectural styles of that period. Among the most notable is Number 29, located on the corner of Sunset Boulevard and Via de la Paz in Pacific Palisades. It was built in 1935 to a design attributed to Roehrig. It followed the traditional massing of the stations from the 1920s, but took a Hollywood Regency form of the PWA Modern. (The portion that currently exists to the right of the main block is a later addition, consisting of a high wall that encloses an outdoor transformer yard.)<sup>110</sup>

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<sup>109</sup> Southeast Los Angeles Community Plan Area, Individual Resources Report, SurveyLA.

<sup>110</sup> "Early Power Distributing Stations," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Gebhard and Winter, *Architectural Guidebook to Los Angeles*, 46; Brentwood-Pacific Palisades Community Plan Area, Individual Resources Report, SurveyLA.

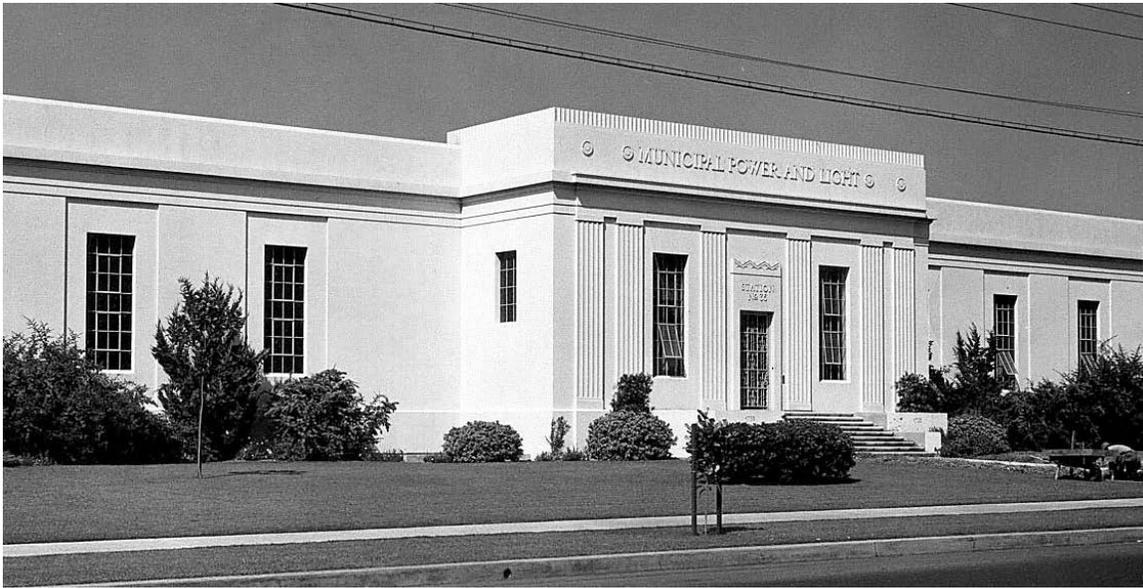


*Distributing Station Number 29, 1935  
15349 West Sunset Boulevard, Pacific Palisades  
(Los Angeles Department of Water and Power)*

There are several other variations on the styles of the 1930s. From early in the decade is the one-story Station Number 20 at 3030 South Canfield Avenue. Built in 1933 and similar in scale to Number 44 in Venice, it is an early example of PWA Modern with what could be considered Art Deco touches. The end of the decade saw more exotic variations such as Station Number 8 at 4858 West San Vicente Boulevard. Completed in 1939, its massing is very much like Number 29 in Pacific Palisades, but there are touches of the Mayan Revival to give it distinction.<sup>111</sup>

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<sup>111</sup> “Early Power Distributing Stations,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum): West Adams-Baldwin Hills-Leimert Community Plan Area, Individual Resources Report, SurveyLA; Wilshire Community Plan Area, Individual Resources Report, SurveyLA.



*Distributing Station Number 35, 1935  
10628 Camarillo Street, North Hollywood  
(Los Angeles Department of Water and Power)*

Most of the distributing stations built in the 1930s are to be found in the more densely populated areas south of the Santa Monica Mountains. But there were a few constructed in the eastern portions of the San Fernando Valley. Because of the greater space available, they are more horizontal in form. They utilized the PWA Modern vocabulary, with a dominant central mass and subordinate side wings. But, unlike those in denser areas, the central mass is lower and wider, and the wings more extended. A good example is Number 35, from 1935, at 10625 West Camarillo Street in North Hollywood. It very much resembles an updated variation of Station Number 2 in Highland Park, with a protruding block in PWA Modern form taking the place of the Tuscan colonnade.<sup>112</sup>

### **Receiving and Distributing Stations, 1945-1980**

The postwar period saw the replacement of the enclosed building with the fenced yard. At the same time, the distributing stations worked to remain aesthetically appealing in their more densely populated settings by treating the fence as a subject of architectural design.

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<sup>112</sup> "Early Power Distributing Stations," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum): North Hollywood-Valley Village Community Plan Area, Individual Resources Report, SurveyLA; See also Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan Area, Individual Resources Report, SurveyLA.



*Distributing Station Number 46, 1955  
880 South Comstock Avenue, Westwood  
(SurveyLA)*

To be sure, in some of the more built-up areas, the prewar tradition of a compact enclosed block continued into the 1950s. A good example of this is Distributing Station Number 46 at 880 South Comstock Avenue in Westwood. Built in 1955, it is an excellent example of the PWA Modern updated to Late Moderne.<sup>113</sup>

But Number 46 was an exception. Instead, the model of a fenced yard with a small control building became dominant. A distributing station from 1940 is a transition from the prewar form of an enclosed structure to the postwar form of the fenced yard. This is Number 59 at 11701 West Venice Boulevard in Mar Vista. From the street, it appears to be a Hollywood Regency variation on PWA Modern, with a projecting central element. But this central element is the only true building. The mass behind that appears as a solid structure, complete with elegant fluted pilasters, is only a fence that encloses a yard open to the sky.<sup>114</sup>

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<sup>113</sup> "Early Power Distributing Stations," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Westwood Community Plan Area, Individual Resources Report, SurveyLA.

<sup>114</sup> Palms-Mar Vista-Del Rey Community Plan Area, Individual Resources Report, SurveyLA.

Some of the early postwar versions of the fenced yard maintained elements of the prewar period. Of interest is Distribution Station Number 130 at 4940 North Balboa Avenue in Encino. Built in 1945, it consists of a concrete wall facing the street, stepping up and slightly projecting in symmetrical form toward the center. In the center there is a blind doorway outlined with fluting, in which is placed the city seal sitting atop a fluted base. Above this is lettering announcing the name and ownership of the structure. Behind the wall is the open transformer yard. It is an example of PWA Modern adapted to the design of a screen.<sup>115</sup>

During the 1950s, the form of the fenced yard was perfected. Two distributing stations from 1955, both in the San Fernando Valley, illustrate two variations. Number 22 at 21323 Sherman Way in Canoga Park follows the form pioneered by Number 59 in 1940. It contains a small control building in front of a fenced yard. Number 80 at 12390 Van Nuys Boulevard in Arleta, in contrast, follows the form of Number 130 from 1945. It presents only a wall to the street, with an imposing doorway-gate as its dominant feature. The control building is a small shed placed in a corner inside the wall.<sup>116</sup>

The year 1960 was particularly important for construction of distributing stations. At least eleven have been identified as dating from that year, seven of which are in the San Fernando Valley. The eleven are Number 66 at 12200 San Vicente Boulevard in Brentwood, Number 95 at 4605 Centinela Avenue in Del Rey, Number 85 at 6629 Tujunga Avenue in North Hollywood, Number 58 at 7871 La Tijera Boulevard in Playa del Rey, Number 137 at 7836 Talbert Street also in Playa del Rey, Number 90 at 19411 Sherman Way in Reseda, Number 64 at 14860 Ventura Boulevard in Sherman Oaks, Number 98 at 4261 Arch Drive in Studio City, Number 65 at 5555 Sylvia Avenue in Tarzana, Number 77 at 6445 Platt Avenue in West Hills, and Number 79 at 5325 De Soto Avenue in Woodland Hills.<sup>117</sup>

Construction of distributing stations continued throughout the following decade, if at a slower pace. Two more date from 1965 and one from 1970, all located in the San Fernando Valley. The two from 1965 are Number 57 at 5500 Laurel Canyon Boulevard in North Hollywood and Station 69 at 10651 Lemona Avenue in Mission Hills. The station from 1970 is Number 83 at 15952 Ventura Boulevard in Encino. Number 57 features a small control building on the front, placed asymmetrically to the left, which the other two present only walls to the street. All three feature monumental doorway-gates to the yards as the dominant architectural feature.<sup>118</sup>

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<sup>115</sup> Encino-Tarzana Community Plan Area, Individual Resources Report, SurveyLA.

<sup>116</sup> Arleta-Pacoima Community Plan Area, Individual Resources Report, SurveyLA; Canoga Park-Winnetka-Woodland Hills Community Plan Area, Individual Resources Report, SurveyLA.

<sup>117</sup> Brentwood-Pacific Palisades Community Plan Area, Individual Resources Report, SurveyLA; Encino-Tarzana Community Plan Area, Individual Resources Report, SurveyLA; Canoga Park-Winnetka-Woodland Hills-West Hills Community Plan Area, Individual Resources Report, SurveyLA; North Hollywood-Valley Village Community Plan Area, Individual Resources Report, SurveyLA; Palms-Mar Vista-Del Rey Community Plan Area, Individual Resources Report, SurveyLA; Reseda-West Van Nuys Community Plan Area, Individual Resources Report, SurveyLA; Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan Area, Individual Resources Report, SurveyLA; Westchester-Playa del Rey Community Plan Area, Individual Resources Report, SurveyLA.

<sup>118</sup> Encino-Tarzana Community Plan Area, Individual Resources Report, SurveyLA; Mission Hills-Panorama City-North Hills Community Plan Area, Individual Resources Report, SurveyLA; North Hollywood-Valley Village Community Plan Area, Individual Resources Report, SurveyLA.



*Distributing Station Number 58, 1960  
7871 South La Tijera Boulevard, Playa Del Rey  
(SurveyLA)*

Among all these distributing stations, two can be used as examples of the two particular forms. Number 58, at 7871 South La Tijera Boulevard in Playa del Rey and built in 1960, shows the placement of the control building in front of the fence as a projecting architectural element. The control building is a relatively modest windowless shed, but an asymmetric design in Mid-century Modern has been applied to the exterior. Of note is the slight curve given to the canopy over the entrance. Behind this is what appears to be a large enclosed volume, resembling a factory of the day. It is actually the wall enclosing the roofless yard. Station Number 58 is able to take advantage of the shape of its corner lot to feature a well-landscaped setback.<sup>119</sup>

Number 15, at 12960 Balboa Boulevard in Granada Hills and dating from 1968, show the form of a wall with monumental doorway-gate. It is a Late Modern design that feature Brutalist-like concrete elements imposed to provide rhythm and scale. The entrance to the control building is reduced to an opening in one of the minor decorative bays that flank the major bay containing the vehicle doorway-gate. On the right of the composition, it is called out only by the projecting canopy over the door.<sup>120</sup>

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<sup>119</sup> Westchester-Playa del Rey Community Plan Area, Individual Resources Report, SurveyLA.

<sup>120</sup> Granada Hills-Knollwood Community Plan Area; Historic Districts, Planning Districts, and Multi-Property Resources Report, SurveyLA.



*Distribution Station Number 15, 1968  
12960 Balboa Avenue, Granada Hills  
(SurveyLA)*

Postwar receiving stations differ little in design from distributing stations. The pattern again is of a rather modest control building set in front of an open yard. Because of the size of the yard, and the fact that postwar receiving stations generally were located in non-residential areas, there was no attempt to hide the transformers behind an opaque screen. Instead, a control building, somewhat larger than that of a distributing station, was located in front of a transformer yard enclosed by a transparent fence.



*Receiving Station J, 1952  
18821 West Parthenia Street, Northridge  
(SurveyLA)*

There are two significant receiving stations constructed in the immediate postwar period. The first was Station N, built in 1946. It is located in Westchester at 8331 South Isis Avenue. It was built to receive power from the planned Scattergood generating plant.<sup>121</sup> The second was Station J at 18821 Parthenia Street in Northridge. It was completed in 1952 and received power from both the older Station E in North Hollywood and the Los Angeles Aqueduct generators, to be distributed to the western San Fernando Valley.<sup>122</sup>

The control building for Station J is a good example of how Mid-century Modern was adopted to give a pleasant appearance to what was essentially a windowless shed. The structure was broken into a dominant mass to the left and a subordinate mass to the right. A brick veneer applied to portions of the concrete exterior, together with an asymmetric canopy over the entrance, provides architectural interest.

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<sup>121</sup> *From Pueblo to Metropolis*, System Map; Westchester-Playa del Rey Community Plan Area, Individual Resources Report, SurveyLA.

<sup>122</sup> *From Pueblo to Metropolis*, System Map; Northridge Community Plan Area, Individual Resources Report, SurveyLA.

**PROPERTY TYPE: POWER RECEIVING AND DISTRIBUTING STATIONS**

**Summary Statement of Significance:**

The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Power receiving and distributing stations provide a system for the delivery of electric power. They range from the monumental structures of the pre-WWII period to the more restrained examples from the after the 1940s.

Resources related to power receiving and distributing stations may be significant in the areas of Engineering, Architecture, and/or Community Planning and Development. They illustrate technological innovations in civil engineering related to electrical transmission and distribution. They may also be significant example of architectural styles of the day. Prewar examples , in particular, were architecturally distinguished and served as monumental symbols of a benevolent government role in daily life. Those resources built after 1945 were more architecturally restrained , working to blend into, and not stand out from, surrounding structures. Power receiving and distributing stations reflect significant trends in community planning relating to the expansion of publicly-owned utilities to provide water and power services to a city growing in both area and population.

**Period of Significance:**

1902-1980

**Period of Significance Justification:**

The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA. (Note: the earliest extant resources under this sub-theme appears to date to 1916)

**Geographic Location:**

Citywide, within the current boundaries of Los Angeles

**Areas of Significance:**

Engineering, Architecture, Community Planning and Development

**Criteria:**

NR: A/C      CR: 1/3      Local: 1/3

**Associated Property Type:** Infrastructure-Water & Power – Receiving and Distributing Stations

**Property Type Description:** Receiving Station – larger building/structure that receives high voltage power from generating sources and sends it out to distributing stations.  
Distributing Station – smaller building/structure that takes power sent from receiving station and then sends it to customers

**Property Type Significance:** See Summary Statement of Significance above.

**Eligibility Standards:**

- Was constructed during the period of significance
- Located along a path of electrical power delivery and/or distribution
- Provides for the delivery of electric power

**Character Defining / Associative Features:**

- Retains most of the essential character defining features from the period of significance
- Of an architectural style typical of the 1902-1980 period
  - Is also significant under themes within the Architecture and Engineering context
- Reflects significant trends in community planning relating to the expansion of publicly-owned utilities
  - Associated with the physical growth of the city during the 1902-1980 period
- May be designed by noted architects
- Characterized by a flat roof, with few or no windows
- Constructed of brick, concrete, or stone veneer
- Signage may be prominent
- May include significant landscaping

**Integrity Considerations:**

- Should retain integrity of Design, Materials, Location, Feeling, and Association
- Engineering and/or architectural integrity should be intact, retaining original massing, significant features, and identifying details
  - Minor engineering and/or architectural changes to details and materials are allowed
  - Examples from the Post WWII period, which are more common, should have few alterations
- Should maintain association with the engineering requirements that gave it form
- Setting may have changed (surrounding buildings and land uses)

## **SUB-THEME: ADMINISTRATION BUILDINGS AND SERVICE YARDS**

Administration buildings and service yards are the most conventional of buildings forms among the Department of Water and Power sub-types. In particular, the administration buildings were able to use the architectural styles of the period without need to adapt them to engineering demands. At the same time, there was an effort to give these buildings an identity that that would further the “Water-Power-Light” brand in the mind of the public.

### **Administration Buildings**

By the 1920s the Bureau of Water Works and Supply and the Bureau of Power and Light operated under the umbrella of the Department of Public Services. As such, they combined to open neighborhood offices, under the sign “Water-Power-Light,” which would handle customer service at the local level. By the late 1930s there were seventeen branch offices.<sup>123</sup>

Most of these offices occupied standard storefronts with little in the way of architectural design to call them out. Beginning in the 1930s, however, the Department of Public Services decided to assume a more dramatic architectural presence. To accomplish this they employed the skills of S. Charles Lee (1899-1990) as consulting architect

Lee is best known for his work as a designer of motion picture theaters. They include such L.A. Historic Cultural Landmarks as the Tower Theater of 1927 (No. 450) and Los Angeles Theater of 1931 (No. 225), both on South Broadway, the Fox Bruin Theater of 1937 in Westwood (No. 361), and the La Reina Theater of 1938 in Sherman Oaks (No. 290).<sup>124</sup>

In addition to theaters, Lee had a number of other commissions that involved the remodeling of storefronts and retail spaces. Notable was his conversion in 1931 of a warehouse into the Art-Deco-Regency-styled Max Factor Building in Hollywood (L.A. Historic-Cultural Monument No. 593).<sup>125</sup> To this endeavor he brought the approach that he used in his theaters: “The show starts on the sidewalk.”<sup>126</sup> It was this theatrical flair that the Department of Public Services sought for its branches.

One of Lee’s first commissions was a branch office opened in August of 1932 at 1613 Cahuenga Boulevard in Hollywood. It was a standard single-story store block constructed by a group of Hollywood property owners, and not by the Department of Public Services. The hand of Lee was present in a small

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<sup>123</sup> “Early DWP Branch Offices,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>124</sup> Herr, *Landmark L.A.*, 439, 445, 450, 457; Maggie Valentine, *The Show Starts on the Sidewalk: An Architectural History of the Movie Theater, Starring S. Charles Lee* (New Haven: Yale University Press, 1994), 8.

<sup>125</sup> Gebhard and Winter, *Architectural Guidebook to Los Angeles*, 179; Herr, *Landmark L.A.*, 469; Valentine, *Show Starts on the Sidewalk*, 8.

<sup>126</sup> Valentine, *Show Starts on the Sidewalk*, 9.

but dramatic Art Deco clock tower that protrudes above the roofline over the storefront occupied by the municipal utility office.<sup>127</sup>



*Branch Office, 1932  
1613 Cahuenga Boulevard, Hollywood  
(Los Angeles Department of Water and Power)*

Lee was also responsible for the branch office labeled the “House of Glass” that opened in December of 1936 at the corner of Vermont Avenue and 59<sup>th</sup> Place. This was a free-standing structure, described in its opening announcement as an example of architecture as advertisement. “Modern in design, the office represents one of the finest local installations of illuminated glass fronts and effectively advertises the progressive policies of the Department. At night the entire front of the building is converted into what is in effect an electrical sign attracting attention to municipal water and power.”<sup>128</sup> (The Historical Context section above contains a rendering of the original building.)

There are two extant neighborhood administration offices, both L.A. Historic-Cultural Monuments that are examples of Lee’s work. The first is the Water and Power Building (No. 384) at 2417 Daly Street in Lincoln Heights. It was a remodeling of an existing building and appears to have been done around

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<sup>127</sup> “Early DWP Branch Offices,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum). The building still stands, with the elements above the storefronts generally intact.

<sup>128</sup> “Early DWP Branch Offices,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum). The existing DWP building at the site appears to be either a replacement or a drastic remodeling.

1937. The other is the Department of Water and Power Building (No. 232) at 5108 Lankershim Boulevard in North Hollywood. It dates from around 1939.<sup>129</sup>



*Lincoln Heights Water and Power Building, circa 1937*

*L.A. Historic-Cultural Monument No. 384*

*(L.A. Office of Historic Resources)*

Architecturally the most significant of all the DWP resources is its General Office Building (L.A. Historic-Cultural Monument No. 1022). Before its completion, the DWP administration, with its 3,200 employees, was scattered among eleven different downtown office buildings. Headquarters had been located since 1921 in one of these eleven, the former Merchants Trust Building at 207 South Broadway.<sup>130</sup>

The new General Office Building allowed for the consolidation of the DWP staff in a single iconic structure. It was dedicated in June of 1965. It is an excellent example of Mid-Century Modernism.

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<sup>129</sup> Gebhard and Winter, *Architectural Guidebook to Los Angeles*, 315, 341; Herr, *Landmark L.A.*, 440, 452.

<sup>130</sup> "Construction of the DWP's General Office Building (GOB)," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

Moreover, its placement at the west end of the Civic Center Mall, or Grand Park, flanked by the Music Center and on axis with City Hall, closes the vista in a textbook classical fashion.<sup>131</sup>

Located between Hill, Temple, Grand, and First Streets, the General Office Building was part of the Bunker Hill redevelopment project. The architect for the seventeen-story structure, A. C. Martin and Associates, included such features as a pool with eight fountains surrounding the base. It served as both a symbol of the Department and as a cooling pond for the air conditioning system.<sup>132</sup>



*View of DWP General Office Building from City Hall, Circa 1967*

*L.A. Historic-Cultural Monument No. 1022*

*(Los Angeles Public Library)*

### **Service Yards**

The first service facility was the Water Works Yard at Second and Rose Streets. It included a machine shop, blacksmith shop, and stables that dated from 1903, and a horse stable and feed loft from 1912. The 1903 building housed Mulholland's office at one time. The site is still publicly owned, but contains no intact resources.<sup>133</sup>

In the mid-1920s the Ducommun Yard was established on a five-acre parcel at Alameda and Ducommun Streets. A rail spur allowed for delivery of materials. By 1930 all activity associated with water service

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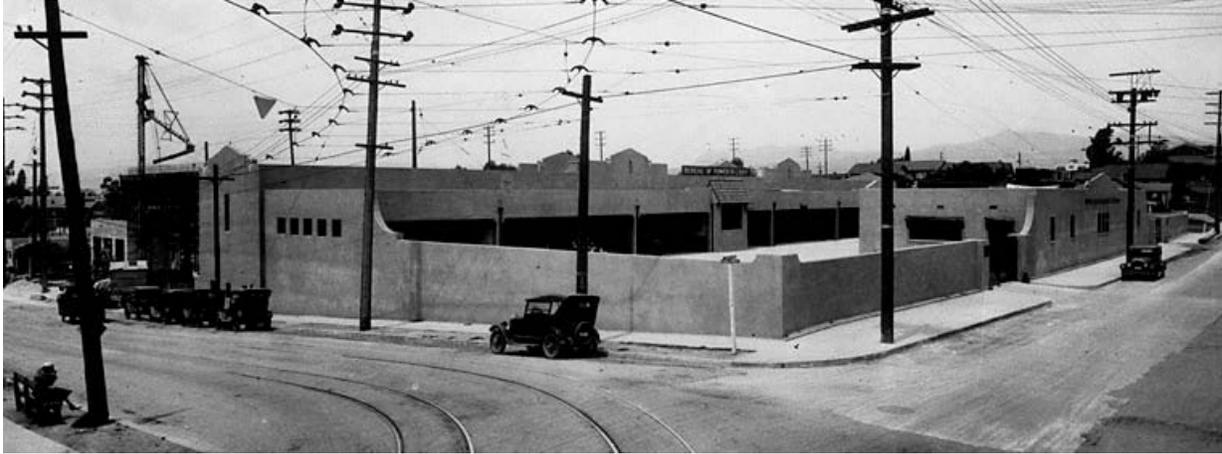
<sup>131</sup> "Construction of the DWP's General Office Building (GOB)," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); Gebhard and Winter, *Architectural Guidebook to Los Angeles*, 258.

<sup>132</sup> "Construction of the DWP's General Office Building (GOB)," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>133</sup> "Early Water Construction," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

maintenance had been moved to the Yard, and the site had been enlarged to almost eight acres. Nearly one thousand employees worked out of Ducommun, and buildings housed engineering and clerical services. The Ducommun Yard still exists but has been greatly altered.<sup>134</sup>

The department also created a general machine shop in the 1920s at 1630 North Main Street. This location was the site of an early power receiving station, established in the late 1910s. During the 1930s its staff worked on a range of tasks, from building batteries to fabricating steel footings for transmission towers. As with the Ducommun Yard, it still exists but has been greatly altered.<sup>135</sup>



*District Number Two Headquarters, 1925  
Northwest corner of Hoover and Clinton Streets, Wilshire  
(Los Angeles Public Library)*

Relatively intact, in contrast, is the facility that served as the District Number Two Headquarters. It dates from 1925 and is located on the northwest corner of Hoover and Clinton Streets. Of reinforced concrete construction, it originally consisted of a long, narrow office structure set along the sidewalk on Hoover a bit north of the corner, a separate tool building to the north of the office structure, also set along the sidewalk, and a wall enclosing the lot.<sup>136</sup>

Behind the office and tool buildings and surrounded by the wall is a paved area that served an open-bayed vehicular service structure. Behind that is a long, narrow shop structure, with three equal rooms in line from south to north, each provided with two skylights. To the north of this shop structure was originally an open yard for the storage of poles. Adjacent, to the west, is Distributing Station Number 15.<sup>137</sup>

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<sup>134</sup> "Early Ducommun Yard," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>135</sup> "Early Machine Shop – 1630 N. Main Street," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum); J. Gregg Layne, *Water and Power for a Great City: A History of the Department of Water and Power of the City of Los Angeles to December, 1950* (Los Angeles: Department of Water and Power, 1952), 180.

<sup>136</sup> 1919/1947 Sanborn Map.

<sup>137</sup> *Ibid.*

The ensemble retains a good deal of integrity. The office structure has been enlarged with a wing and a second story, and in the process lost its original front wall with its shallow pediment. One structure has been added to the corner, in line with the office, and another to the north of the office. But the rear shop and service bay structure is intact, including the pediments on the north and south ends and along the front and back walls. The site currently serves as the DWP's Streetlight Maintenance Yard.<sup>138</sup>

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<sup>138</sup> "Early Power Distribution," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

**PROPERTY TYPE: ADMINISTRATION BUILDINGS AND SERVICE YARDS**

**Summary Statement of Significance:** The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Administration buildings and service yards are buildings and structures constructed to housing office and maintenance functions for employees. Neighborhood administration buildings also provided services to the public/customers.

Resources related to administration offices and service yards may be significant in the areas of Engineering, Architecture, and/or Community Planning and Development. They illustrate how changes in maintenance machinery and technical procedures gave shape to the utilitarian facilities that housed them. They may also be excellent examples of architectural styles of the day and designed by noted architects. Associated resources also reflect significant trends in community planning relating to the expansion of publicly-owned utilities to provide water and power services to a city growing in both area and population. Administration buildings are typically individual resources while service yards comprise historic districts.

**Period of Significance:** 1902-1980

**Period of Significance Justification:** The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA.

**Geographic Location:** Citywide, within the current boundaries of Los Angeles

**Areas of Significance:** Engineering, Architecture, Community Planning and Development

**Criteria:** NR: A/C      CR: 1/3      Local: 1/3

**Associated Property Type:** Infrastructure-Water & Power – Administration Building  
Infrastructure-Water & Power – Service Yard

**Property Type Description:** Administration Building – Offices for employees and public service activities

Service Yard – Facility for maintenance procedures and vehicle storage. Service yards may be recorded as historic districts

**Property Type Significance:** See Summary Statement of Significance above.

**Eligibility Standards:**

- Was constructed during the period of significance
- Is associated with water and power administration and maintenance

**Character Defining / Associative Features:**

- Retains most of the essential character defining features from the period of significance.
- Administration buildings have significant lobby spaces and prominent signage; may have significant landscape features
- Of an engineering and/or architectural form/style typical of the 1902-1980 period
  - May also be significant within themes of the Architecture and Engineering context, particularly administration buildings
- May be designed by noted architects
- Reflects significant trends in community planning relating to the expansion of publicly-owned utilities
  - Associated with the physical growth of the city during the 1902-1980 period

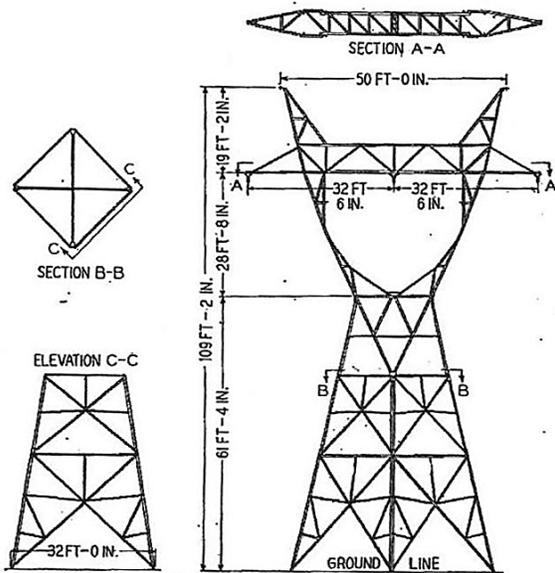
**Integrity Considerations:**

- Should retain integrity of Design, Materials, Locations, Feeling, and Association
- Minor engineering and/or architectural changes to details and materials are allowed
- Setting may have changed (adjacent buildings and land uses)
- Primary interior public spaces associated with administration buildings should be intact

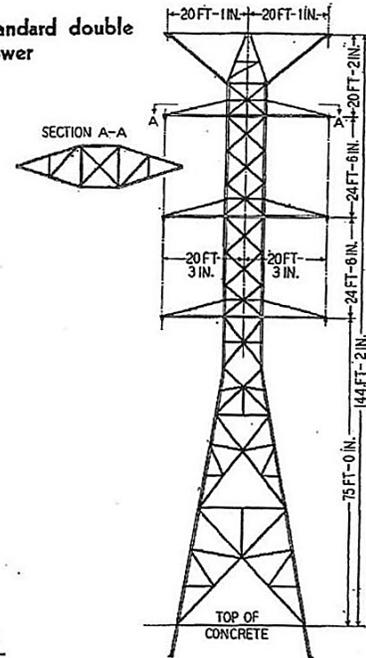
**SUB-THEME: TRANSMISSION LINE TOWERS**

The transmission line tower is an interesting engineering type in and of itself. But its historical significance comes from the role it plays as part of the ensemble of elements associated with innovations in the provision of power to Los Angeles. Significant tower resources are linked to such innovations as the initial provision of power to Los Angeles from the aqueduct’s generating facilities in the 1910s and the delivery of power from Hoover (Boulder) Dam in the 1930s.

**Fig. 15 (below). Standard single circuit suspension tower**



**Fig. 16 (right). Standard double circuit suspension tower**



*Transmission line tower designs, circa 1935*

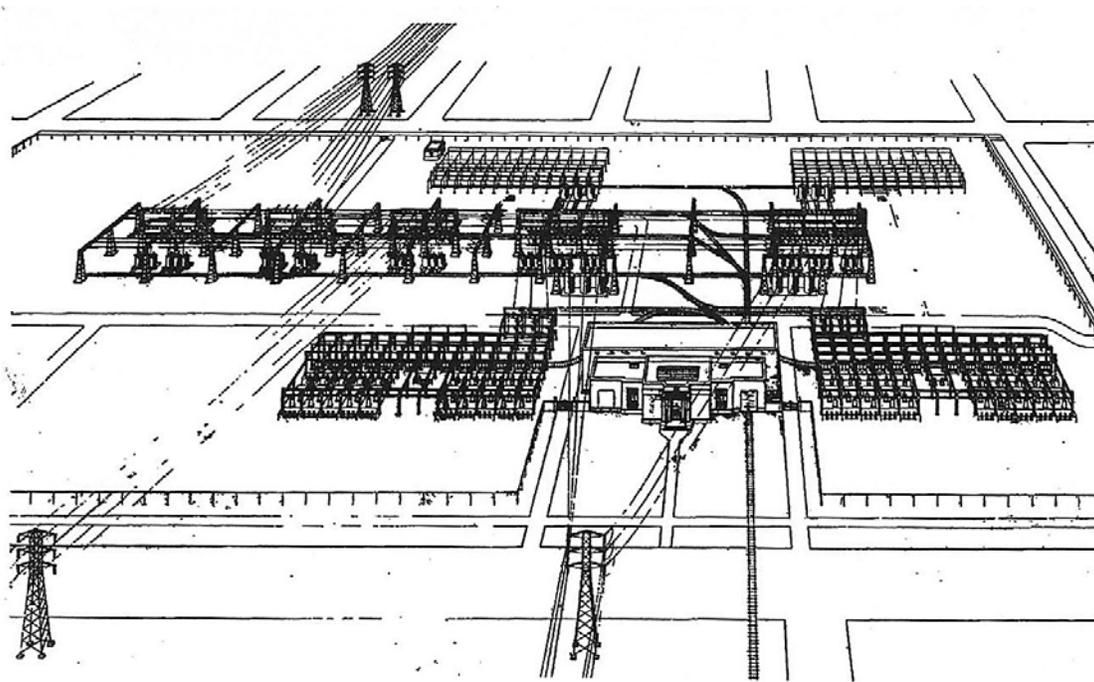
*From E. F. Scattergood, "Engineering Features of the Boulder Dam-Los Angeles Lines"  
(Los Angeles Department of Water and Power)*

The transmission line tower is a structural form distinct in two ways from the pole that carries high-voltage lines. First, it is a structure with four sides, rather than a single verticle element. Second, it requires its own right-of-way, unlike the pole than can be placed along a public route such as a street.

There are two known examples of sites containing historically significant transmission line towers. The one with the best-documented history is the set of towers along 98<sup>th</sup> Street in South and Southeast Los Angeles. These towers are associated with the first delivery of Hoover Dam power to Los Angeles. Remaining towers begin to the east of Receiving Station B, where there are three pairs still standing, and

extend to the west as far as the Gramercy Switching Station, located adjacent to the Jesse Owens Community Regional Park to the west of Western Avenue.<sup>139</sup>

In 1935 Ezra Scattergood, the Chief Electrical Engineer and General Manager of the Bureau of Power and Light, published an article entitled “Engineering Features of the Boulder Dam-Los Angeles Lines” in the May, 1935, issue of the professional journal *Electrical Engineering*. He also presented the paper for comment at a meeting of the American Institute of Electrical Engineers that June. In this paper Scattergood put forth the method by which Hoover Dam power would be brought to Los Angeles.<sup>140</sup>



*Drawing showing Receiving Station B and transmission line towers, 1935  
From E. F. Scattergood, “Engineering Features of the Boulder Dam-Los Angeles Lines”  
(Los Angeles Department of Water and Power)*

Receiving Station B was selected by Scattergood as the single point of entry. The article contains a drawing of the relationship of the then existing receiving station and the towers to be built. (North is to the right in the drawing, rather than at the top as is customary.) The towers on the bottom bring Hoover Dam power into the station from the east. The towers at the top continue west from Receiving Station B toward the Gramercy Switching Station.<sup>141</sup>

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<sup>139</sup> *From Pueblo to Metropolis*, System Map; South Los Angeles Community Plan Area, Non-Parcel Resources Report, SurveyLA; Southeast Los Angeles Community Plan Area, Non-Parcel Resources Report, SurveyLA.

<sup>140</sup> The paper can be found in “Early Power Transmission,” Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>141</sup> Scattergood, 15-16. Added later were the Victorville-Toluca Lake Transmission Line, connecting to Receiving Station E, and the Victorville-Rinaldi Transmission Lines, connecting to the station of that name. See *From Pueblo to Metropolis*, System Map.

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The drawing matches current conditions. Each of the two rows of towers coming into the station from the east has its own right-of-way. The tower to the north sits a few occupied parcels below 96<sup>th</sup> Street. The tower to the south runs along the north side of 98<sup>th</sup> Street. There is no 97<sup>th</sup> Street, and parcels occupied by structures fill the space between the two rows of towers. In contrast, the pairs of towers extending to the west of Receiving Station B are contained within a single median strip along 98<sup>th</sup> Street. (Currently the median narrows just to the east of Avalon Boulevard and the pair of towers becomes a single tower.)<sup>142</sup>

The provenance of the second site containing historically significant transmission line towers is less certain. But, if confirmed, it is equally important. It consists of extant original towers along the Whitnall Highway Power Corridor in the San Fernando Valley. This corridor is the right-of-way for the original line of transmission line towers that brought power created by the Los Angeles Aqueduct to the city.



*Olive Switching Station (demolished) and adjacent transmission line tower  
13355 San Fernando Road, Sylmar  
(Los Angeles Public Library)*

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<sup>142</sup> Los Angeles County Assessor's Map.

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Entering the city at Sylmar, this right-of-way passes through the site of the now demolished Olive Switching Station, at 13355 San Fernando Road.<sup>143</sup> This station, completed in 1917, received power from the San Francisquito Power Plant Number 1 and then sent it directly to the Central Receiving Station located north of the old Plaza Downtown, without any other receiving stations in route.<sup>144</sup>

The right-of-way with its line of towers continues diagonally from the northwest toward the southeast in a more-or-less straight line. It exits the city in North Hollywood, passes through Burbank, and then meets the Los Angeles River near the intersection of Buena Vista Street and Riverside Drive. At that point the right-of-way joins a line of transmission line towers that follows the course of the river toward Downtown. The line extends to the Central Receiving Station (Receiving Station A), now part of what, in the 1920s, became the general machine shop at 1630 North Main Street.<sup>145</sup>



*Transmission Line Towers*

*Whitnall Highway, southeast of Cahuenga Boulevard, North Hollywood*

*(Photo by author)*

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<sup>143</sup> Ibid.

<sup>144</sup> "Early Power Substations and Switching Stations," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>145</sup> *From Pueblo to Metropolis*, System Map; Los Angeles County Assessor's Map.

The right-of-way takes its name, the Whitnall Highway Power Corridor, from a proposed 1920's-era parkway that was to be constructed along its length. The parkway was to begin at Riverside Drive and terminate in Newhall. It was named for George Gordon Whitnall, who served as secretary for the City Planning Commission and was one of the visionaries who foresaw the creation of the freeway system.<sup>146</sup>

The parkway was to be constructed on additional rights-of-way acquired on either side of the power line's path. The existing transmission towers were to be located in a median strip, on either side of which there was to be a forty-five-foot wide paved roadway. Work began in 1927, but acquiring the additional rights-of-way proved troublesome and support for the route evaporated with the coming of the Depression. Construction halted in the early 1930s.<sup>147</sup>

The remnant of this project is today's Whitnall Highway in North Hollywood, which extends from Clybourn Avenue on the southeast, at the border with Burbank, as far as Cleon Avenue on the northwest. A particularly dense collection of transmission line towers is present along this completed stretch, in particular near the intersection of Cahuenga Boulevard and Whitnall Highway and adjacent to Receiving Station E (constructed in 1938, after the original towers were built).<sup>148</sup>

A question still to be researched is which of the towers along the length of the Whitnall Corridor are original. Many appear to match fairly closely the design called out by Scattergood, in his 1935 description of proposed Hoover Dam, for a standard double circuit suspension tower. Nonetheless, their provenance needs to be confirmed before establishing their historic significance.<sup>149</sup>

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<sup>146</sup> Hadley Meares, "Phantom Fast Lanes: Whitnall Highway and the Footprint of Best Laid Plans" (June 28, 2013), KCET Website, [www.kcet.org/departures-columns](http://www.kcet.org/departures-columns).

<sup>147</sup> Hadley Meares, "Phantom Fast Lanes: Whitnall Highway and the Footprint of Best Laid Plans" (June 28, 2013), KCET Website, [www.kcet.org/departures-columns](http://www.kcet.org/departures-columns).

<sup>148</sup> By 1986 the original Whitnall Corridor power line from the Olive Switching Station toward Downtown had been diverted to the Rinaldi Station before resuming its path to Receiving Station E. Also, two additional high voltage lines joined the original Whitnall Corridor route, from the north, before it reached Receiving Station E. One was the Victorville-Toluca Transmission Line, transporting Hoover Dam power. The other was a transmission line bringing power from the Valley Generating Plant. See *From Pueblo to Metropolis*, System Map. The rights-of-way of the two lines coming in from the north can be traced on the Los Angeles County Assessor's Map.

<sup>149</sup> In addition to the towers along the actually constructed length of Whitnall Highway, there are two other sections of the right-of-way that contain towers that may well be original. They are the section that runs from Sherman Way to Truesdale Avenue in Sun Valley, and from Laurel Canyon to Foothill Boulevard in Sylmar. See North Hollywood-Valley Village Community Plan Area, Non-Parcel Resources Report, *SurveyLA*; Sun Valley-La Tuna Canyon Community Plan Area, Non-Parcel Resources Report, *SurveyLA*; Sylmar Community Plan Area, Non-Parcel Resources Report, *SurveyLA*.

**PROPERTY TYPE: TRANSMISSION LINE TOWERS**

**Summary Statement of Significance:** The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Transmission line towers are structures that deliver power. Transmission line tower ensembles are linear resources that comprise historic districts.

Transmission line towers may be significant in the areas of Engineering and/or Community Planning and Development. They illustrate technological and engineering innovations in the transmission of electrical power over long distances and the delivery of this power to receiving stations. Associated resources also reflect significant trends in community planning relating to the expansion of publicly-owned utilities to provide water and power services to a city growing in both area and population. Particular attention is directed toward resources linked to the early delivery of power from the Los Angeles Aqueduct in the 1910s and from Hoover (Boulder) Dam in the 1930s.

**Period of Significance:** 1902-1980

**Period of Significance Justification:** The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA

**Geographic Location:** Citywide, within the current boundaries of Los Angeles

**Areas of Significance:** Engineering, Community Planning and Development

**Criteria:** NR: A/C      CR: 1/3      Local: 1/3

**Associated Property Type:** Infrastructure-Water & Power – Transmission Line Tower

**Property Type Description:** Engineering structure designed to support high voltage lines from the source of generation to a receiving station. Transmission line tower ensembles are linear resources that comprise historic districts.

**Property Type Significance:** See Summary Statement of Significance above.

**Eligibility Standards:**

- Was constructed during the period of significance
- Provides for delivery of electric power, with particular attention to the period between 1910-1940
- Located along a path of electrical power delivery and/or distribution

**Character Defining / Associative Features:**

- Retains most of the essential character defining features from the period of significance
- Of an engineering form typical of the 1902-1980 period, with particular attention to the 1910-1940 period
- Reflects significant trends in community planning relating to the expansion of publicly-owned utilities
  - Associated with the physical growth of the city during the 1902-1980 period, with particular attention to the 1910-1940 period

**Integrity Considerations:**

- Should retain integrity of Design, Materials, Local, Feeling, and Association.
- Engineering integrity should include maintenance of original equipment and/or materials as much as possible; minor engineering changes to details and materials are allowed
- Should maintain association with the engineering requirements that gave it form
- Setting may have changed (adjacent buildings and land uses)

**SUB-THEME: SIGNIFICANT INDIVIDUALS IN WATER AND POWER**

There are two individuals identified as significant within the history and development of water and power in Los Angeles.<sup>150</sup> The first and best known is William Mulholland (1855-1935). He served as chief engineer and general manager of the municipal water system from its origin in 1902 until his retirement in 1929. Self-taught in engineering, he was responsible for the planning and construction of the Silver Lake Reservoir, the Los Angeles Aqueduct, and the dam above Hollywood that bears his name.<sup>151</sup>



*William Mulholland Memorial Fountain  
L.A. Historic-Cultural Monument No. 162  
(L.A. Office of Historic Resources)*

There is a designated resource that is associated with Mulholland. This is the William Mulholland Memorial Fountain, constructed in 1940 (L.A. Historic-Cultural Monument No. 162). It is located at Los Feliz Boulevard and Riverside Drive.<sup>152</sup>

The second individual is Ezra Scattergood (1871-1947). While not as well-known, he is as significant for the development of municipal power as Mulholland is for water. He held a degree in electrical engineering from Rutgers University, and was retained by the city as a consulting engineer to plan and develop the power facilities along the Los Angeles Aqueduct. In 1911 Scattergood became the Chief Electrical Engineer for the newly created Bureau of Power and Light. In the years following he supervised the construction of hydroelectric generation and the acquisition of private companies to enlarge the scope of municipal power. He was also instrumental in passing legislation that allowed for the

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<sup>150</sup> Others may be identified over time.

<sup>151</sup> "William Mulholland Biography," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>152</sup> Herr, *Landmark L.A.*, 434.

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construction of Hoover Dam and for the financing of the transmission lines that brought its power to Los Angeles. He remained Chief Electrical Engineer until 1940.<sup>153</sup>

There is one known to date resource associated with Ezra Scattergood. This is his residence, located at 4515 Berkshire Avenue in El Sereno. It was constructed in 1913 and designed by Frederick L. Roehrig, who went on to do a great deal of architectural work for the Bureau of Power and Light.<sup>154</sup>



*Ezra F. Scattergood Residence, 4515 N Berkshire Ave  
Contributor, El Sereno - Berkshire Craftsman District HPOZ  
(SurveyLA)*

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<sup>153</sup> "Ezra Scattergood Biography," Water and Power Associates website, [www.waterandpower.org/museum](http://www.waterandpower.org/museum).

<sup>154</sup> Northeast Los Angeles Survey Community Plan Area, Individual Resources Report, SurveyLA.

**PROPERTY TYPE: RESOURCES ASSOCIATED WITH SIGNIFICANT INDIVIDUALS IN WATER AND POWER**

**Summary Statement of Significance:** The supply of water and power is one of the most significant themes in the history and development of Los Angeles. Resources evaluated under this sub-theme are associated with individuals who played a pivotal role in the development of municipal water and power in Los Angeles. Known individuals are engineers Ezra Scattergood and William Mulholland, but others may be identified over time.

**Period of Significance:** 1902-1980

**Period of Significance Justification:** The period of significance begins in 1902, when municipal ownership of utilities began, and ends in 1980, the end date for SurveyLA.

**Geographic Location:** Citywide, within the current boundaries of Los Angeles

**Areas of Significance:** Engineering

**Criteria:** NR: B            CR: 2            Local: 2

**Associated Property Type:** Residential: Single Family Residence  
(Note: Additional property types may be added over time such as commercial and institutional office space.)

**Property Type Description:** Residences of individuals who played a pivotal role in the development of water and power in Los Angeles.

**Property Type Significance:** See Summary Statement of Significant above.

**Eligibility Standards:**

- Is associated with a person who made important individual contributions to the development of water and power in Los Angeles
- Individual must be proven to have made important contributions to the development of water and power in Los Angeles

**Character Defining/Associative Features:**

- Retains most of the essential physical features from the period of significance
- Directly associated with the productive life of the individual in the area of water and power

## **SurveyLA Citywide Historic Context Statement**

### **Public and Private Institutional Development/Municipal Infrastructure and Services/Water and Power**

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- For residential property types, the individual must have resided in the property during the period in which he/she achieved significance

#### **Integrity Considerations:**

- Should retain integrity of Location, Design, Materials, Feeling, and Association
- Setting may have changed (surrounding buildings and land uses)
- Minor architectural changes to details and materials are allowed

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