



CITY OF BEVERLY HILLS
PUBLIC WORKS SERVICES DEPARTMENT
MEMORANDUM

TO: PUBLIC WORKS COMMISSION

FROM: Vince Damasse, Water Resources Manager *V.D.*
Trish Rhay, Assistant Director of Public Works Services, Infrastructure
& Field Operations *TR*

DATE: April 18, 2016

SUBJECT: REVIEW AND RECOMMENDATION ON ADOPTION OF PROPOSED
WATER SUPPLY EXACTION FEE

ATTACHMENT: Water Supply Exaction Fee Report dated April 10, 2016, by Bucknam &
Associates

OBJECTIVE

That the Public Works Commission make recommendations to the City Council regarding the establishment of a Water Supply Exaction Fee to pay for additional groundwater supply needed to maintain the City's goal of reducing its reliance on imported water.

BACKGROUND

The 2015 Water Enterprise Plan (WEP) reported that the City currently relies primarily on the purchase of water from Metropolitan Water District of Southern California (MWD) for 90% of its water supply and receives only 10% from local water supply sources from the Hollywood Groundwater Basin. The WEP recommended that the City undertake capital improvements to decrease the City's reliance on the purchase of water from MWD to 75% and develop local groundwater sources to supply 25%.

The City has implemented a Capital Improvement Program, based upon the WEP, to construct additional wells, transmission pipelines and treatment plant capacity to achieve a water supply goal that relies on MWD for 75% and on local water sources for 25% of its water supply needs for existing development.

The City has adopted a Water Capacity Charge (WCC) that allocates to new connections a proportionate share of the cost of existing facilities and planned capital improvements needed to achieve the City's goal of having local water sources meet 25% of its existing groundwater supply needs.

As new connections are established or redevelopment occurs, the increased water supply demand will decrease the percentage share of the water supply from groundwater. In order to maintain the goal of using 25% of the water supply from groundwater, it will be necessary for additional groundwater production to be developed beyond that covered in the WEP.

The proposed Water Supply Exaction Fee (WSEF) is in addition to the City's Water Capacity Charge and will fund facilities not included in the determination of the Water Capacity Charge.

The facilities funded with the Water Supply Exaction Fee include an additional High Capacity Well, beyond the 3 wells planned in the WEP, with an estimated capacity to produce **700 AFY** from the La Brea Subarea of the Unadjudicated Central Basin and a connecting Transmission Main to convey the groundwater to the City's Treatment plant. The estimated total project cost to develop the proposed high capacity well is **\$6,156,450 or \$8,795 per acre-foot per year**.

Table 1 lists the projected costs to develop the High Capacity Well, Transmission Main and Treatment Project:

Table 1. High Capacity Well and Transmission Main & Treatment Project Cost

Description	Cost
Land Acquisition (Land Value)	\$1,500,000
Well Drilling Design	\$51,188
Well Drilling Contract	\$1,023,750
Well Equipping and Transmission Main Design	\$157,500
Well Equipping and Transmission Main Contract	\$1,575,000
Water Treatment Design	\$31,500
Water Treatment Construction	\$210,000
Environmental Documentation – CEQA	\$103,950
Permitting	\$56,175
Construction Management and Inspection	\$421,313
Subtotal Project Cost	\$5,130,375
Contingency (20%)	\$1,026,075
Subtotal Project Cost with Land	\$6,156,450
Estimated Production of New Well (AFY)	700
Projected Cost per AF with Land Purchase	\$8,795
Groundwater Supply Goal as Percent of Total Water Supply	25%
Projected Cost per AF with Land Value (0.25 x \$8,795)	\$2,199

A. Meter Fee Calculation

For a new connection that requires an additional water supply of one acre-foot per year, the purchase of water from MWD will provide 0.75 acre-feet per year and the development of additional groundwater sources will provide the remaining 0.25 acre-feet per year.

The City uses a standard of 925.7 gallons per day (GPD), which is approximately one acre-foot per year to supply water to a single-family residence (SFR) that is approximately 5,000 square feet with a 1-inch meter. The typical single-family residence uses 50% of total water use for indoor use.

The Water Supply Exaction Fee for a new SFR with a 1-inch meter is \$2,199 (one acre-foot per year x 25% for local supply x \$8,795 per acre-foot per year).

Meter capacity factors are used to determine the Water Supply Exaction Fee for different meter sizes. **Table 2** summarizes graduated Water Supply Exaction Fees based on meter size.

Table 2. Water Supply Exaction Fee by Meter Size

Meter Size	Meter Capacity Factor	Fee
3/4"	0.60	\$1,319
1"	1	\$2,199
1-1/2"	2	\$4,397
2"	3.2	\$7,036
3"	6	\$13,192
4"	10	\$21,987
6"	20	\$43,975

Calculation examples are shown below for various scenarios for new connections and expansions. The calculations conform to the existing methodology for determining the City's WCC and uses the examples in the 2014 WCC Report to maintain uniformity in calculating the City's capacity fees.

(1) WSEF Calculation Example 1: Residential Account Requiring a Meter Upgrade

A **Residential Account** requiring a meter upgrade would be charged a WSEF based on the difference between the fee associated with the current meter size and the fee associated with the new meter size. For example, a meter upgrade to a 1-1/2-inch meter from a 1-inch meter would be the difference between \$4,397 and \$2,199 or **\$2,198**.

A **Redevelopment Fee** is associated with Building Expansion, Redevelopment, or Renovation, when a meter upgrade is not required. To maintain uniformity in the calculation of the City's water fees, the WSEF for Redevelopment uses 5,000 square feet as the average house size in the City. The resulting cost for redevelopment or expansion is **\$0.22 per square foot (SF)** as noted below in **Table 3**.

Table 3. WSEF for Redevelopment or Expansion

Average AFY for SFR	Indoor Use AFY (50% of Average)	Local Water Supply (25%)	Cost per AFY	Fee
1.0	0.5	0.125	\$8,795	\$1,100
Average SFR Size (square feet)				5,000
Fee for Redevelopment or Expansion per SF				\$0.22

Please note that this report adheres to the existing practice of the City to exempt residential additions or redevelopment of less than 1,000 square feet of additional space.

(2) WSEF Calculation Example 2: Remodel or Redevelopment of less than 1,000 SF

The WSEF in this case is not charged because the project is less than 1,000 SF.

(3) WSEF Calculation Example 3: Remodel or Redevelopment of More than 1,000 SF

For Redevelopment or Additions of more than 1,000 square feet, the WSEF of \$0.22 per square

foot is used to calculate the fee. For example, a New Addition of 1,500 square feet is charged a WSEF of **\$330**.

B. Non-Residential Fee Calculation

This cost per GPD is used to calculate the WSEF for Non-Residential projects without meter upgrades using the standard convention the City uses to calculate the City’s WCC.

To calculate the WSEF for Commercial Redevelopment projects, the \$8,795 per acre-foot equals an equivalent fee of \$9.85 per GPD. The local water supply is 25% of the total water supply requirement. The WSEF is \$2.46 per GPD of the total water supply requirement. The cost of the WSEF for non-residential projects is added to the City’s established WCC for non-residential uses.

For example, the WSEF for an Auditorium, which requires 4.4 gpd per seat, would be approximately **\$11 per seat**. The additional cost of \$11 per seat is added to the existing WCC shown in **Table 4** below.

(1) WSEF Calculation Example 4: Commercial Account with Service Unit Increase Not Requiring a Meter Upgrade

In cases where a project’s expansion changes its total number of Service Units and does not require a meter upgrade, the project pays for the resulting additional demand. For example, a Restaurant that adds 30 seats would pay **\$2,430** (\$81 multiplied by 30 seats).

(2) WSEF Calculation Example 5: Commercial Change in Use

Changes in Commercial Use of a property is the difference between estimated usage per day between the previous usage and the current usage. For example, a 1,000 square foot Retail Space converted to a 1,000 square foot Coffee House would be **\$601** (\$820 minus \$219).

Table 4. Water Supply Exaction Fees for Non-Residential Customers

Customer Class	Estimated GPD	Service Unit	Proposed Water Supply Exaction Fee	Existing Water capacity charge	Total Fees
Auditorium or Community Center	4.4	per seat	\$11	\$90	\$101
Bank	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Gymnasium	278	per 1,000 sq. ft.	\$685	\$5,633	\$6,318
Health Spa	667	per 1,000 sq. ft.	\$1,643	\$13,519	\$15,162
Hotel, per room	144	per room	\$355	\$2,929	\$3,284
Medical Office	278	per 1,000 sq. ft.	\$685	\$5,633	\$6,318
Office Building	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Shopping Center	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Coffee House	333	per 1,000 sq. ft.	\$820	\$6,759	\$7,579
Restaurant–Full Service	33	per seat	\$81	\$676	\$757
Retail Store	89	per 1,000 sq. ft.	\$219	\$1,803	\$2,022
School – Private	222	per 1,000 sq. ft.	\$547	\$4,506	\$5,053
Supermarket	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791

RECOMMENDATIONS

Staff recommends the City adopt an ordinance to establish the WSEF pursuant to Government Code Sections 66013, 66016, 66022 and 66023, similar to the WCC, rather than impose exactions or fees on an ad-hoc basis.

The City should **Separately Account for All Revenue** collected in a separate fund to be established and maintained by the City titled “**Water Supply Exaction Fee Fund,**” to avoid co-mingling with other City revenues.

Within 180 days after the end of each fiscal year, City staff should provide the City Council with an **Annual WSEF Report** showing:

- A description of the charges deposited in the fund;
- The beginning and ending balance of the fund and the interest earned from the investment of moneys in the fund;
- The amount of charges collected in that fiscal year;
- An identification of the following:
 - Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.
 - Each public improvement on which charges were expended that was completed during that fiscal year.
 - Each public improvement that is anticipated to be undertaken in the following fiscal year.
- A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

The report detailing the above may be part of the annual audit prepared for the City each year.

Ordinance No. 15-O-2674 adopted February 17, 2015 established a WCC and provides that the WCC is due upon occurrence of the following:

- 1) Installation of a New Water Meter,
- 2) Change in the Size of a Water Meter, or
- 3) The Final Inspection of a Project.

The WSEF should be due at the same time and in the same manner as the WCC. It is also recommended that the adequacy of the WSEF be reviewed when City staff conduct their periodic review of capital expenses.

The City should establish a **Procedure** for the Community Development Department that, upon

its receipt of an Application for a New Development or Redevelopment that may require a new meter or change in meter size, it would go through a water feasibility analysis and/or plan check process as part of a water will serve procedure.

The **California Environmental Quality Act (CEQA)** requires cities to evaluate the impacts of developments that request approvals and provide a notice to affected jurisdictions of the determination made relative to the project. Upon receipt of **Notices of Determination (NOD)** under **CEQA** from the City of West Hollywood, the Community Development Department should distribute a copy of the NOD to the **Water Department** for determination of the impact on the City's water system and the corresponding meter size requirements for the New Development or Redevelopment projects in that City, with the City of Beverly Hills' water service area.

The City should coordinate with the City of West Hollywood, to establish a **Process for the City of West Hollywood** to notify owners of property in West Hollywood that are within the City of Beverly Hills' Water Service Area requiring them to contact the City's **Water Department or the Public Works Services Department** regarding the details of the new connection or redevelopment project's water system demands.



City of Beverly Hills

Water Supply Exaction Fee Report

April 10, 2016

DRAFT

Prepared by:

Bucknam & Associates, Inc.



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I. EXECUTIVE SUMMARY

The purpose of this report is to evaluate options for developing additional groundwater supplies and to establish a "Water Supply Exaction Fee Structure for New Development." The scope of services included:

- Compile a description of facilities and land needed to develop additional groundwater production, based upon information in the City's 2015 Water Enterprise Plan (WEP) as well as consultation with the City, relative to a new well field planned for the La Brea Subarea of the Unadjudicated Central Basin.
- Prepare a projection of the potential additional water supplies that can be developed within the La Brea Subarea of the Unadjudicated Central Basin; to meet demands not included in the 2015 WEP's analysis.
- Compile a conceptual cost projection, for future facilities and land acquisition needed to develop additional groundwater production.
- Prepare an allocation of costs on the basis of Equivalent Dwelling Units (EDU) to new service connections.
- Prepare sample illustrations of the projection of the amount of a Groundwater Exaction Fee to be charged to new service connections, expansions and meter upgrades.

The WEP reported that the City currently relies primarily on the purchase of water from the Metropolitan Water District of Southern California (MWD) for 90% of its water supply and receives only 10% from local water supply sources from the Hollywood Groundwater Basin. The WEP recommended that the City undertake capital improvements to decrease the City's reliance on the purchase of water from MWD to 75% and develop local groundwater sources to supply 25% of the City's water needs.

The City has implemented a Capital Improvement Program (CIP), based upon the WEP, to construct additional wells, transmission pipelines and treatment plant capacity to achieve a water supply goal that relies on MWD for 75% and on local water sources for 25% of its water supply needs for existing development.

The City has also adopted a Water Capacity Charge (WCC) that allocates to new connections a proportionate share of the value of existing facilities and the construction of a water treatment plant to achieve the City's goal of having local water sources meet 25% of its existing groundwater supply needs. The Water Supply Exaction Fee (WSEF) recommended in this report is in addition to the City's current WCC and is intended to fund facilities not



included in the determination of the current WCC.

As new connections are established or redevelopment occurs, the increased water demand will decrease the percentage share of the water supply from groundwater. In order to maintain the goal of using 25% of the water supply from groundwater, it will be necessary for additional groundwater production to be developed beyond that covered in the WEP.

A key objective of this analysis is to establish a WSEF that would pay for the additional groundwater supply needed to maintain the purchased water to local water ratio at 75% and 25%, respectively, as new connections are established or redevelopment occurs. The development of a High Capacity Well is proposed to supply this additional groundwater to maintain the City's goal of having its water supply come from 25% local water sources.

The proposed High Capacity Well is located in the La Brea Subarea (LBSA) and has a capacity to produce an estimated 700 acre-feet per year (equivalent to 624,920 gallons per day or GPD). This well would provide additional water supply to maintain the purchased water to groundwater supply ratio at 75% to 25%. The estimated total projected cost to develop the proposed High Capacity Well is approximately \$6,156,450 or **\$8,795** per acre-foot per year (AFY) (\$6,156,450 divided by 700 acre-feet per year).

According to the 2014 Water Capacity Fee Study, the City uses a standard of 925.7 gallons per day (GPD), which is approximately 1.00 AFY to supply water to a single-family residence of 5,000 square feet supplied through a one-inch water meter. Hence, the purchase of 0.75 AFY from MWD and the development of 0.25 AFY from local water sources would meet the demand for a new connection requiring 1.00 AFY.

As an example, the WSEF for a new Single-Family Residence with a one-inch meter is determined to be **\$2,199 per AFY** (1.00 AFY x 25% for groundwater supply x \$8,795 per AFY).

The City calculates its existing WCC for redevelopment of **Residential Projects** that do not require a water meter upgrade based on square footage. The assumed indoor water usage for a single-family residence is assumed at 50% of the total usage or 462.85 gallons per day (GPD), which is approximately equal to 0.5 AFY. Using this assumption, the proposed WSEF for expansions that do not require a meter upgrade is **\$0.22 / square foot (SF)** (0.5 AFY x 25% for groundwater supply x \$8,795 per AFY / 5,000 SF).

For **Commercial Development or Redevelopment** projects that do not require a meter upgrade, square footage or an assigned service unit factor is used. For each building use classification, the projected capacity demand is determined based on the GPD calculated using the service unit factor assigned to a customer class. To calculate the WSEF for commercial development or redevelopment projects, the \$8,795 per AFY is converted to an equivalent fee of **\$9.85 per GPD** (\$8,795 per AFY x 700 AFY / 624,920 GPD).



It is important to note that the calculations presented in this report for the proposed WSEF will change if the City's imported water to local water goal ratio of 75% to 25%, respectively, is changed and other variables change, such as the current usage standard of 925.7 gpd for a single family residence. The adequacy of the WSEF will need to be reviewed when City staff re-evaluates the cost for a new well in their periodic review of planned capital improvements.

Changes in the commercial use of a property can result in an increase in its water supply requirement based on the difference between estimated usage per day between the previous usage and the current usage. For example, a 1,000 square foot retail store converted to a 1,000 square foot coffee house would be **\$601** (\$820 minus \$219). A coffee house requires 333 GPD per 1,000 square feet and a retail store requires 89 GPD per 1,000 square feet. The WSEF for a coffee house is \$820 per 1,000 square feet and for a retail store it is \$219 per 1,000 square feet. The methodology to calculate these fees are shown in this report and summarized in Table 4.

II. SUMMARY OF CHARACTERISTICS OF THE CITY'S WATER SYSTEM

According to the 2015 Water Enterprise Plan, the City's water system characteristics are as follows:

- The service area of the City's water enterprise includes the City and a portion of the City of West Hollywood.
- In general, the City relies on MWD for approximately 90% of its water supplies and groundwater from the Hollywood Groundwater Basin for 10% of its water supplies.
- From 1996 through 2002, one hundred percent (100%) of the City's water supply was imported from MWD.
- MWD water has supplied an average of 94.9% of the City's total demand since 1996 and, since 2003 (the year the treatment plant was placed into service); the City has purchased an average of 91.5% of its water from MWD, with the remaining 8.5% coming from its own groundwater production (average between 2004 and 2014).
- As of 2014, the City imported 11,632 acre-feet of water from MWD (94.8%) and pumped 637 acre-feet of groundwater (5.2%) for a total of 12,269 acre-feet of water.
- Groundwater is treated at the City's Reverse Osmosis Treatment Plant.



- The City has four (4) groundwater wells in the Hollywood Groundwater Basin that each pump to the Reverse Osmosis Treatment Plant.
- Hollywood Groundwater Basin is Unadjudicated and managed by the City through municipal ordinances.
- Since the water treatment plant became operational in 2003, the average groundwater production between 2004 and 2014 was 1,032 acre-feet per year. However, groundwater production has decreased since 2010, with only 637 acre-feet of groundwater pumped in 2014.
- The City has the potential to develop additional groundwater supplies within the Hollywood Groundwater Basin and the Unadjudicated Central Basin.
- The City has no artificial groundwater recharge capacity, because it lacks injection wells or spreading basins.

III. WATER ENTERPRISE PLAN

The **2015 Water Enterprise Plan (WEP)** identified potential alternative water supply sources to increase the overall reliability of the City's water system. The WEP observed that MWD has always been a reliable source of supply for the City; however, given the ongoing drought and the current cutback in imported water allocations by MWD, and the potential for even higher future cutbacks (according to the WEP, the City's Senate Bill SBx7-7 mandated water goal by the year 2025 is 11,313 AFY), the WEP recommended that the City seek alternative water supplies to reduce the amount of water purchased from MWD.

The WEP reported that the City purchases an average of 90% of its water supply from MWD. To increase the City's supply reliability, the WEP recommended reducing dependence on imported water from MWD to 75%.

To achieve the goal of 25% independence, the WEP recommended:

- Development of three (3) new groundwater wells in the Unadjudicated Central Basin;
- Construction of related Transmission Mains, and;
- Improvements to the Reverse Osmosis Treatment Plant.

For the City to maintain a water supply goal of 11,313 AFY with the prospect of MWD supply reductions, the WEP recommended the construction of 3 new wells that would provide the City with approximately 1,708 AFY in new groundwater supplies. This new supply along with the 1,120 AFY of potential groundwater production from existing and planned shallow



groundwater wells in the Hollywood Basin, will supply approximately 25% of the City's total water demand by 2025 (1,708 AFY + 1,120 AFY = 2,828 AFY; 2,828 AFY / 11,313 AFY = 0.25, or 25% groundwater).

IV. EXISTING WATER CAPACITY CHARGES

The City retained Raftelis Financial Consultants, Inc. (RFC) in 2014 to develop water capacity charges for the City's water system. The 2014 WCC Report used a combination of an equity buy-in approach and the incremental cost approach to determine the WCC.

RFC allocated a portion of the value of the existing water system facilities and the cost of improvements identified in the WEP to new customers to determine the water capacity charge. The WCC resulted in an allocation of cost to new customers based on the capital improvements needed to achieve the City's goal of having 25% of its water supply needs provided from local supplies and reducing the City's reliance on MWD to 75%.

As new connections are established and redevelopment occurs, the increased water supply demands would decrease the percentage share of the water supply from groundwater supplies unless groundwater supplies beyond those anticipated in the WEP are developed. In order to maintain the ratio of 25% of the water supply from groundwater sources, it will be necessary for additional groundwater production to be developed.

V. ORDINANCE TO ESTABLISH WATER CAPACITY CHARGE

On February 17, 2015, the City Council adopted Ordinance No. 15-O-2674 ("Water Capacity Charge Ordinance"), which amended the City's municipal code to establish a water capacity charge. Section 6-1-251 of the Water Capacity Charge Ordinance states:

"The user of city water service shall pay a water capacity charge in an amount established by resolution of the city council. The water capacity charge is due upon the occurrence of one of the following events, as deemed appropriate by the Director of Public Works Services, or his or her designee: (1) installation of a new water meter, (2) change in the size of a water meter, or (3) the final inspection of a project."

The Water Capacity Charge Ordinance provides that the City may collect the WCC from the water user with a bill for water service charges, or by delivering a separate bill for the WCC. The water user may pay the WCC in two or more installments and City Council, by resolution, may allow for an alternative procedure for the collection of the WCC.



VI. WATER EXACTION FEES

Capacity fees or charges are governed by **Government Code Section 66013, 66016, 66022 and 66023**. The Government Code defines a capacity charge as a charge for existing public facilities or charges for new public facilities to be acquired or constructed in the future, which benefit the person or property being charged. In 2007, the definition of capacity charge was expanded to include supply or capacity charges for rights, entitlements, or property interests involving capital expenses of local public facilities.

Government Code Section 66013 provides that the revenues produced by the capacity charge are kept in a separate fund so as to avoid co-mingling with other City funds, and that the City provides an accounting after the end of each fiscal year, which reveals the total amount of capacity charge revenue collected and interest earned thereon, expenses from that fund during the previous fiscal year, and the balance remaining in the fund at the end of the fiscal year. Capacity charges do not include costs for operation and maintenance.

Accounting and Reporting Requirements

In setting up the WSEF, the City would need to separately account for all revenue collected in a fund to be established and maintained by the City titled **“Water Supply Exaction Fee Fund.”** to avoid co-mingling with other City revenues. Pursuant to Government Code Section 66013, the local agency collecting the fee is required to make available to the public the following within 180 days after the end of each fiscal year:

- A description of the charges deposited in the fund;
- The beginning and ending balance of the fund and the interest earned from the investment of moneys in the fund;
- The amount of charges collected in that fiscal year;
- An identification of the following:
 - Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.
 - Each public improvement on which charges were expended that was completed during that fiscal year.
 - Each public improvement that is anticipated to be undertaken in the following fiscal year.
- A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public



improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

The report detailing the above may be part of the annual audit prepared for the City each year.

VII. METHODOLOGY FOR THE WATER SUPPLY EXACTION FEE

The proposed WSEF was determined by allocating the cost to develop new water supplies required to maintain the City's water supply goal that relies on MWD for 75% and on local water sources for 25% of its water supply needs.

The City has implemented a **Capital Improvement Program (CIP)** to construct additional wells, transmission pipelines and treatment plant capacity to achieve a water supply goal that relies on MWD for 75% and on local water sources for 25% of its water supply needs for existing development, based upon the finding of its WEP.

The City has also adopted a **WCC** that allocates to new connections a proportionate share of the cost of existing facilities and planned capital improvements needed to achieve the City's goal of having local water sources meet 25% of its existing water supply needs. The WSEF recommended in this report is in addition to the City's current WCC and will fund facilities not included in the determination of the current WCC.

As new connections are established or redevelopment occurs, the increased water supply demand will decrease the percentage share of the water supply from groundwater unless additional groundwater supplies are developed, beyond those planned in the WEP. In order to maintain the ratio of 25% of the water supply from groundwater, it is necessary that this additional groundwater production be developed.

A key objective of our analysis is to establish a WSEF that will pay for the additional water supply needed to maintain the purchased water to local water ratio at 75% and 25%, respectively, as new connections are established or redevelopment occurs.

A. Cost of an Additional High Capacity Well, Transmission Main & Treatment

An additional High Capacity Well, beyond the 3 wells planned in the WEP, with an estimated capacity to produce **700 AFY** from the La Brea Subarea of the Unadjudicated Central Basin and a connecting Transmission Main to convey the groundwater to the City's Treatment plant, is recommended. The estimated total project cost to develop the proposed high capacity well is **\$6,156,450 or \$8,795 per acre-foot per year**. **Table 1** below lists the projected costs to develop the High Capacity Well, Transmission Main & Treatment Project:



Table 1. High Capacity Well and Transmission Main & Treatment Project Cost

Description	Cost
Land Acquisition (Land Value)	\$1,500,000
Well Drilling Design	\$51,188
Well Drilling Contract	\$1,023,750
Well Equipping and Transmission Main Design	\$157,500
Well Equipping and Transmission Main Contract	\$1,575,000
Water Treatment Design	\$31,500
Water Treatment Construction	\$210,000
Environmental Documentation – CEQA	\$103,950
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Contingency (20%)	\$1,026,075
Subtotal Project Cost with Land	\$6,156,450
Estimated Production of New Well (AFY)	700
Projected Cost per AF with Land Purchase	\$8,795
Groundwater Supply Goal as Percent of Total Water Supply	25%
Projected Cost per AF with Land Value (0.25 x \$8,795)	\$2,199

B. Meter Fee Calculation

For a new connection that requires an additional water supply of one acre-foot per year, the purchase of water from MWD would provide 0.75 acre-feet per year and the development of additional groundwater sources would provide the remaining 0.25 acre-feet per year.

The City uses a standard of 925.7 gallons per day, which is approximately one acre-foot per year to supply water to a single-family residence (SFR) that is approximately 5,000 square feet in size and with a 1-inch meter connection. The typical single family residence uses approximately 50% of total water use for indoor use. Therefore, the Water Supply Exaction Fee for a new SFR with a 1-inch meter is \$2,199 (one acre-foot per year x 25% for local supply x \$8,795 per acre-foot per year).

Meter capacity factors are used to determine the Water Supply Exaction Fee for different meter sizes. **Table 2** below summarizes graduated Water Supply Exaction Fees based on meter size.



Table 2. Water Supply Exaction Fee by Meter Size

Meter Size	Meter Capacity Factor	Fee
3/4"	0.60	\$1,319
1"	1	\$2,199
1-1/2"	2	\$4,397
2"	3.2	\$7,036
3"	6	\$13,192
4"	10	\$21,987
6"	20	\$43,975

Calculation examples are shown below for various scenarios for new connections or expansions. The calculations conform to the existing methodology for determining the City's WCC and uses the examples in the 2014 WCC Report to maintain uniformity in calculating the City's capacity fees.

(1) WSEF Calculation Example 1: Residential Account Requiring a Meter Upgrade

A **Residential Account** requiring a meter upgrade would be charged a WSEF based on the difference between the fee associated with the current meter size and the fee associated with the new meter size. For example, a meter upgrade to a 1-1/2-inch meter from a 1-inch meter would be the difference between \$4,397 and \$2,199, or **\$2,198**.

A **Redevelopment Fee** is associated with Building Expansion, Redevelopment, or Renovation, when a meter upgrade is not required. To maintain uniformity in the calculation of the City's water fees, the WSEF for Redevelopment uses 5,000 square feet as the average house size in the City. The resulting cost for redevelopment or expansion is **\$0.22 per square foot (SF)** as noted below in **Table 3**.

Table 3. WSEF for Redevelopment or Expansion

Average AFY for SFR	Indoor Use AFY (50% of Average)	Local Water Supply (25%)	Cost per AFY	Fee
1.0	0.5	0.125	\$8,795	\$1,100
Average SFR Size (square feet)				5,000
Fee for Redevelopment or Expansion per SF				\$0.22

Please note that this report adheres to the existing practice of the City to exempt residential additions or redevelopment of less than 1,000 square feet of additional space.



(2) WSEF Calculation Example 2: Remodel or Redevelopment of less than 1,000 SF

The WSEF in this case is not charged because the project is less than 1,000 SF.

(3) WSEF Calculation Example 3: Remodel or Redevelopment of More than 1,000 SF

For Redevelopment or Additions of more than 1,000 square feet, the WSEF of \$0.22 per square foot is used to calculate the fee. For example, a New Addition of 1,500 square feet is charged a WSEF of **\$330**.

C. Non-Residential Fee Calculation

This cost per GPD is used to calculate the WSEF for Non-Residential projects without meter upgrades using the standard convention the City uses to calculate the City's WCC.

To calculate the WSEF for Commercial Redevelopment projects, the \$8,795 per acre-foot equals an equivalent fee of \$9.85 per GPD. The local water supply is 25% of the total water supply requirement. The WSEF is \$2.46 per GPD of the total water supply requirement. The cost of the WSEF for non-residential projects is added to the City's established WCC for Non-Residential uses.

For example, the WSEF Fee for an Auditorium, which requires 4.4 GPD per seat, would be **\$11 per seat**. The additional cost of \$11 per seat is added to the existing WCC shown in **Table 4** below.

(1) WSEF Calculation Example 4: Commercial Account with Service Unit Increase Not Requiring a Meter Upgrade

In cases where a project's expansion changes its total number of Service Units and does not require a meter upgrade, the project pays for the resulting additional demand. For example, a Restaurant that adds 30 seats would pay **\$2,430** (\$81 multiplied by 30 seats).

(2) Calculation Example 5: Commercial Change in Use

Changes in Commercial Use of a property is the difference between estimated usage per day between the previous usage and the current usage. For example, a 1,000 square foot Retail Store converted to a 1,000 square foot Coffee House would be **\$601** (\$820 minus \$219).



Table 4. Water Supply Exaction Fees for Non-Residential Customers

Customer Class	Estimated GPD	Service Unit	Proposed Water Supply Exaction Fee	Existing Water capacity charge	Total Fees
Auditorium or Community Center	4.4	per seat	\$11	\$90	\$101
Bank	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Gymnasium	278	per 1,000 sq. ft.	\$685	\$5,633	\$6,318
Health Spa	667	per 1,000 sq. ft.	\$1,643	\$13,519	\$15,162
Hotel, per room	144	per room	\$355	\$2,929	\$3,284
Medical Office	278	per 1,000 sq. ft.	\$685	\$5,633	\$6,318
Office Building	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Shopping Center	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791
Coffee House	333	per 1,000 sq. ft.	\$820	\$6,759	\$7,579
Restaurant–Full Service	33	per seat	\$81	\$676	\$757
Retail Store	89	per 1,000 sq. ft.	\$219	\$1,803	\$2,022
School – Private	222	per 1,000 sq. ft.	\$547	\$4,506	\$5,053
Supermarket	167	per 1,000 sq. ft.	\$411	\$3,380	\$3,791

VIII. CONCLUSIONS AND RECOMMENDATIONS

The City should consider adopting an ordinance to establish the WSEF pursuant to Government Code Sections 66013, 66016, 66022 and 66023, similar to the WCC, rather than impose exactions or fees on an ad-hoc basis.

The City is required to **Separately Account for All Revenue** collected in a segregated fund to be established and maintained by the City titled “**Water Supply Exaction Fee Fund,**” to avoid co-mingling with other City revenues.

Within 180 days after the end of each fiscal year, City staff is required to prepare an **Annual WSEF Report** showing:

- A description of the charges deposited in the fund;
- The beginning and ending balance of the fund and the interest earned from the investment of moneys in the fund;
- The amount of charges collected in that fiscal year;
- An identification of the following:
 - Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the



- percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.
 - Each public improvement on which charges were expended that was completed during that fiscal year.
 - Each public improvement that is anticipated to be undertaken in the following fiscal year.
- A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

The report detailing the above may be part of the annual audit prepared for the City each year.

Ordinance No. 15-O-2674 adopted February 17, 2015 established the WCC and provides that the WCC is due upon occurrence of the following:

- 1) Installation of a New Water Meter;
- 2) Change in the Size of a Water Meter, or
- 3) The Final Inspection of a Project.

The WSEF should be due at the same time and in the same manner as the WCC. It is also recommended that the adequacy of the WSEF be reviewed when City staff conduct their periodic review of capital expenses.

The City should establish a **Procedure** for the Community Development Department that, upon its receipt of an Application for a New Development or Redevelopment that may require a new meter or change in meter size, it would go through a plan check process as part of a will serve procedure.

The **California Environmental Quality Act (CEQA)** requires cities to evaluate the impacts of developments that request approvals and provide a notice to affected jurisdictions of the determination made relative to the project. Upon receipt of **Notices of Determination (NOD)** under **CEQA** from the City of West Hollywood, the Community Development Department should distribute a copy of the NOD to the **Water Department** for determination of the impact on the City's water system and the corresponding meter size requirements for the New Development or Redevelopment projects in that City, with the City of Beverly Hills' water service area.



The City should coordinate with the City of West Hollywood, to establish a **Process for the City of West Hollywood** to notify owners of property in West Hollywood that are within the City of Beverly Hills' Water Service Area requiring them to contact the City's **Water Department or the Public Works Services Department** regarding the details of the new connection or redevelopment project's water system demands.



IX. REFERENCES

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