



City of Los Angeles, Department of Public Works

Tree Replacement and Planting In-Lieu Fee Study

Final Report

November 20, 2017

32605 Temecula Parkway, Suite 100
Temecula, CA 92592
Toll free: 800.434.8349 Fax: 951.296.1998

TABLE OF CONTENTS

Executive Summary	3
Section 1 – Project Approach and Outcomes	5
Methods of Analysis	6
Data Sources	11
Section 2 – Conclusion	12

Attachments

Fully Burdened Hourly Rate Analysis	Attachment A
Cost of Service Analysis – Los Angeles Department of Public Works	Attachment B
Cost Comparison Survey	Attachment C
Cost of Service Analysis – City Plants	Attachment D

Executive Summary

On April 8, 2016, the City of Los Angeles (City), Department of Public Works (Department) provided its Board of Public Works with an internal analysis and justification for Tree Replacement and Planting In-Lieu fees. Per the Department's Report to the Board:

"The proposed concept goal is two-fold, which is to establish a Tree Replacement and Planting In-Lieu Fee (or Deposit) for Private Development and Residential projects that would:

- 1. Satisfy the Department of Public Works' Tree Replacement Policy of "2 x 1" ratio (Tree Planting: Tree Removal) by providing an option to allow a tree removal permit applicant to pay a fee (non-refundable deposit) In-Lieu of delivering an unplanted tree to a City tree yard or local nursery due space and/or plan design constraints; and/or*
- 2. Satisfy the Department of City Planning tree planting requirements by providing a permit alternative compliance option to allow a private residential developer to pay a fee (non-refundable deposit) In-Lieu of undergoing a lengthy variance or re-design of plans, if feasible, to meet the City's Zoning Code requirements.*

In terms of metrics, the proposed concept aims to:

- 1. Reduce the Number of Trees delivered to a City tree yard that become Unplanted and Dead Trees to zero percent (0%); and*
- 2. Increase the Tree Plant "In-the-Ground" Rate to 100%."¹*

After review and discussion with the Board, the Department retained NBS, a professional services firm with extensive experience in user and regulatory fee analysis, to validate and/or expand upon the Department's efforts.

The purpose of this report is to describe the findings and recommendations of the Tree Replacement and Planting In-Lieu Fee Study (Study) performed by NBS for the Department. Key aspects of NBS' approach to this project include:

- Review of the Department's Tree Replacement and Planting In-Lieu Fee analysis
- Analysis of the costs of providing fee-related services for tree planting
- Suggestions regarding optimal cost recovery mechanisms (fee structures) for these services
- Consideration of insourced versus outsourced program implementation costs

NBS gained a broad understanding of the Department's organization, performance of core services, functions of service, staffing structure and lines of command, and availability of existing time tracking and workload data to support the Study. NBS also identified all direct and indirect costs related to the provision of fee-related services for this program.

The fees evaluated in this Study focused solely on opportunities to establish user and/or regulatory fees, which are limited to the reasonable costs of providing the service for which the fee is charged.²

¹ BPW-BSS Joint Report No.1, April 8, 2016, p.8

² Proposition 26, Section 1(e)(2), and Section 1(e)(3)

This Study identified the total estimated costs of two types of typical tree replacement and planting projects:

1. Private Commercial and Residential Development Projects, which typically require a standard 24 inch box tree size
2. Residential Development Projects, which typically require a 15 gallon tree size

This Study also compared the cost of two operational scenarios available to the City for replacement and planting services:

1. City’s costs of providing services as performed by the Department of Public Works’ Bureau of Street Services, Urban Forestry and Special Projects divisions
2. Costs of providing services when performed by the existing City of Los Angeles partnership with non-profit, community based organizations such as City Plants along with the Los Angeles Conservation Corps

Per the Study’s findings, the total estimated cost of a Private Development Project (24” box) tree is approximately \$2,600 per tree; a Residential Development Project, approximately \$1,900 - \$2,300 per tree.

Table 1: Summary of Study Outcomes

Tree Size	Los Angeles Costs (Per Tree)	City Plants Costs (Per Tree)
Private Development Project - 24" Box Tree	\$ 2,648	\$ 2,612
Residential Development Project - 15 Gallon Tree	\$ 2,258	\$ 1,945

If the City Council adopts the Tree Replacement and Planting In-Lieu program at the fee amounts shown above for the preferred operating scenario, fees would recover 100% of the cost of providing services, on average.

The following sections of this report describe the analytical methods and data sources used throughout the Study. Sections 1 and 2 describe the Study’s approach and outcomes. Attachments A – D to the report include the detailed supporting analysis and fee calculation tables as described in the report.

Section 1 – Project Approach and Outcomes

California cities impose user fees and regulatory fees for services and activities they provide through provisions of the State Constitution. First, cities may perform broad activities related to their local policing power and other service authority as defined in Article XI, Sections 7 and 9. Second, cities may establish fees for service through the framework defined in Article XIII C, Section 1. Under this latter framework, a fee may not exceed the estimated reasonable cost of providing the service or performing the activity. For a fee to qualify as such, it must relate to a service or activity under the control of the individual/entity on which the fee is imposed. For example, the individual/entity requests service of the municipality or his or her actions specifically cause the municipality to perform additional activities. In this manner, the service or the underlying action causing the municipality to perform service is either discretionary and/or is subject to regulation. As a discretionary service or regulatory activity, the user fees and regulatory fees considered in this Study fall outside requirements for imposition of taxes, special taxes, or fees imposed as incidences of property ownership.

In November 2010, California voters adopted Proposition 26 (P26), which amended the California Constitution, prohibiting a local agency from adopting or increasing a levy, fee, charge of any kind without voter approval unless a specific exemption contained in P26 applies. If a levy, fee or charge satisfies a specific exemption, it may be adopted by a simple majority of the local agency's legislative body. Most user/regulatory fees, including those evaluated in this Study for the City of Los Angeles, fall under one or more of P26's seven stated exceptions or its two implied exceptions for fees paid voluntarily and not because they are "imposed", and for fees which do not fund government. These fees are therefore *not subject to P26's definition of a tax*. The seven exceptions are as follows:

1. **Special Benefit or Privilege:** A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
2. **Government Service or Product:** A charge imposed for specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
3. **Licenses and Permits:** A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
4. **Local Government Property:** A charge imposed for entrance to or use of local government property, or the purchase, rental or lease of a local government property.
5. **Fines and Penalties:** A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.

6. **Property Development:** A charge imposed as a condition of property development.
7. **The Prop 218 Exception:** Provides that property assessment and property-related fees that are already subject to the approval requirements of Proposition 218 are not taxes. Common examples include water and sewer rates and special district assessments such as Landscape and Lighting District Act assessments.

A local legislative body may approve the fees discussed within this report based on a majority vote of its governing body alone, so long as the fee does not exceed the ***estimated reasonable cost of providing the service for which the fee is charged and bears a fair or reasonable relationship to a payor's burdens on or benefits from the regulatory program.***

Methods of Analysis

NBS approaches every fee analysis in three phases:

- 1) Cost of service analysis
- 2) Fee establishment
- 3) Cost recovery evaluation

This Study compared the cost of two operational scenarios for replacement and planting services. One scenario focuses on the City's costs of providing services as performed by the Department's Bureau of Street Services, Urban Forestry and Special Projects divisions; the second scenario as provided by the City's existing partnerships with non-profit community based organizations.

Phase 1: Cost of Service Analysis - Los Angeles Department of Public Works

The Urban Forestry and Special Projects divisions could be tasked with planting the trees paid for by the in-lieu fee program. The following describes the methodology behind NBS' establishment of the estimated costs of providing services under this operational scenario for the program.

A cost of service analysis is a quantitative effort that compiles the full cost of providing governmental services and activities. Components of the full cost of service include direct labor costs, indirect labor costs, specific direct non-labor costs where applicable, allocated non-labor costs, and allocated City-wide overhead. NBS defines these cost components as follows:

- **Labor costs** – Salary, wages and benefits expenses for City personnel specifically involved in the provision of services and activities to the public.
- **Indirect labor costs** – Personnel expenses supporting the provision of services and activities. This can include line supervision and departmental management, administrative support within a department, and staff involved in technical activities related to the direct services provided to the public.

- **Specific direct non-labor costs** – Discrete expenses incurred by the City due to a specific service or activity performed, such as contractor costs, third-party charges, and specific materials used in the service or activity.
- **Allocated indirect non-labor costs** – Expenses other than labor involved in the provision of services. In most cases, these costs are allocated across all services, rather than directly assigned to fee categories.
- **Allocated indirect organization-wide overhead** – These are expenses, both labor and non-labor, related to City-wide support services. Support services include general administrative services such as Clerk, Attorney, Human Resources, Finance, Building Maintenance, and other administrative services. An agency’s support services departments assist the direct providers of public services.

The amount of benefit and various types of overhead costs attributable to each division included in this were sourced from a separate Cost Allocation Plan prepared by the Los Angeles City Controller.

Nearly all of the fees under review in this Study require specific actions on the part of City staff to provide the service or conduct the activity. Because labor is the primary underlying factor in these activities, the Study expresses the full cost of service as a fully burdened cost per labor hour. The hourly rate serves as the basis for further quantifying the average full cost of providing individual services and activities.

Calculation of the fully burdened labor rate requires two figures: the full costs of service and the number of hours available to perform those services. The full costs of service are quantified through the earlier steps described above. The number of hours available to provide services considers each full-time employee at a standard of 2,080 hours per year of regular time. Using this as an initial benchmark of labor time, the Study removes the average employee’s eligible annual leave from the total number of regular paid hours to generate the total number of available labor hours. These available hours represent the amount of productive time available for providing both fee-recoverable and non-fee recoverable services and activities. The productive labor hours divided into the annual full costs of service equals the fully burdened labor rate.

Table 2 summarizes the outcomes of NBS’ fully burdened hourly rate analysis for the Urban Forestry Division’s typical tree planting crew and the Special Projects Division’s crew required for a concrete cut. The detailed analysis is included as Attachment A to this report.

Table 2: Fully Burdened Hourly Rates

Urban Forestry Division	Fully Burdened Hourly Rate
TREE SURGEON SUPVSR I	\$ 198
LIGHT EQUIP OPERATOR	\$ 140
TRUCK OPERATOR	\$ 131
TREE SURGEON	\$ 134
TREE SURGEON ASST	\$ 118
Special Projects Division	
ST SVCS SUPV	\$ 106
EQUIPMNT OPERATOR	\$ 100
MTCE & CONST HELPER	\$ 59

Fully burdened labor rates applied at the individual fee level provide a defensible calculation of the average full cost of providing each fee-related service or activity. This step requires the development of staff time estimates for each proposed fee item. The Department does not currently systematically track activity service time for tree replacement and planting services. Consequently, NBS used interviews and questionnaires to develop the necessary data sets describing estimated labor time. In most cases, City staff estimated the average amount of time it would take to complete a typical occurrence of each service or service considered. Every attempt was made to ensure that each division having a direct role in the provision of services provided a time estimate.

It should be noted that the development of these time estimates was not a one-step process: estimates received were carefully reviewed by both consultant, divisional, and departmental management to assess the reasonableness of the estimates. Based on this review, the City reconsidered its time estimates until all parties were comfortable that the fee models reasonably reflected the average estimated and reasonable service level that would be provided by the City for this tree replacement and planting program. Staff's time estimates multiplied by the fully burdened labor rates yield an average full cost of each service or activity.

The average full cost of service is just that: an average cost at the individual fee level. The City does not currently have the systems in place to impose fees for every service or activity based on the actual amount of time it takes to serve each individual request. Moreover, such an approach is almost universally infeasible without significant – if not unreasonable – investments in costly technology. Use of this average cost (flat fee) method is therefore the preferred approach in proceeding toward a schedule of tree replacement and planting in-lieu fees. Flat fee structures based on average and estimated costs of service are widely applied among other California municipalities, and it is a generally accepted approach.

The following table summarizes the outcomes of this Cost of Service Analysis. The calculated fully burdened hourly rates multiplied by the time estimates for each service produce a total time and total cost calculation for each service proposed as a new fee:

Table 3: Cost of Service Analysis by Tree Size

Fee Name	Total Time Estimate (Hours)	Total Cost of Service
24" Box Tree	19.85	\$ 2,648
15 Gallon Tree	17.77	\$ 2,258

The detailed time estimation and cost of service calculation analysis is included as Attachment B to this report.

Cost Comparison Survey

NBS also assisted the Department in research of information regarding price points for tree replacement materials. The City provided historical vendor and purchasing information through which NBS established a list of (15) vendors for survey. NBS downloaded respective pricing information from an initial Internet search and made a reasonable attempt to contact each vendor to obtain a copy of their pricing information. Attachment C provides the outcome of the survey’s efforts. The purpose of this comparison was to provide a sense of the local market pricing for materials, and to use that information to develop the cost of service calculations shown in Attachment B.

Phase 1: Cost of Service Analysis – City Partnerships with Community Based Organizations

Currently, the City of Los Angeles partners with community based, non-profit organizations, such as City Plants and the Los Angeles Conservation Corps (LACC), to assist with planting, care, and maintenance of trees to help develop and grow LA’s urban forest. This Study compared the costs of the City providing these services itself versus the cost of contracting through one of the City’s partnerships. For purposes of analysis, NBS interviewed the Executive Director of City Plants to document their estimated average (current) costs for planting a 24” box and 15-gallon tree. If City Plants was responsible for planting all trees in the in-lieu fee program, City Plants would charge an administrative fee to oversee and facilitate the planting process while a stable of non-profit, community based subcontractors complete the actual planting and watering of each tree. This facilitation of subcontractor relationships is the typical current practice for City Plants when providing services to other City departments. In addition, the City’s Urban Forestry Division would add costs for pre-planning and post-planting inspection on each tree, as this step would apply to any tree planted under the in-lieu tree replacement and planting program. The detailed cost of service calculation analysis for City Plants is included as Attachment D to this report.

Phase 2: Fee Establishment

A range of considerations are involved in ensuring selection of the best “structure” of fee names and categories to match the way services are provided for each client. Common approaches to structuring fee names and categories include:

- Flat / fixed fees per project type
- Fees based on variable characteristics, such as tiers of project sizes, project values, etc.
- Actual cost billing arrangements, where an initial deposit is collected and actual costs (time and materials) are charged against the deposit through project completion

For the City’s Tree Replacement and Planting In-Lieu Fee program, NBS recommended the Department continue with its original recommendation to the Board of Public Works for a flat / fixed fee based on a Private Development (24’ box) versus Residential Development (15 gallon) project size. Should the fees be adopted as such, NBS also recommends the Department revisit the analysis once one to two years of data has been collected on typical project sizes (number of trees) and actual efforts involved (tracked time and/or time tracking sample).

Phase 3: Cost Recovery Evaluation

The NBS fee model typically compares the existing fee for each service or activity to the average full cost of service quantified through this analysis. A cost recovery rate of 0% identifies no current recovery of costs from fee revenues (or insufficient information available for evaluation). A rate of 100% means that the fee currently recovers the full cost of service. A rate between 0% and 100% indicates partial recovery of the full cost of service through fees. A rate greater than 100% means that the fee exceeded the full cost of service. However, because the purpose of the Study is to establish a reasonable and cost of service based fee for the tree replacement and planting in-lieu program, the City does not currently charge fees for these services. The current cost recovery rate is obviously 0%.

Fees examined in this Study should not exceed the full cost of service. In other words, the cost recovery rate adopted by a governing body should not be greater than 100%. In most cases, imposing a fee above this threshold could be considered a “tax” by definition of Proposition 26 and require the consensus of the voters for approval.

NBS also assists with modeling the “recommended” or “targeted” level of cost recovery for each fee, always established at 100%, or less, than the calculated full cost of service. Targets and recommendations always reflect agency-specific judgments linked to a variety of factors, such as existing City policies, agency-wide or departmental revenue objectives, economic goals, community values, market conditions, level of demand, and others.

At the Department’s request, NBS provided the full cost of service calculation information and the framework for considering fees, while those closest to the fee-paying population – the Department of Public Works – have considered appropriate cost recovery levels at or below that full cost (recommended

fee amounts) for the Board and/or City Council's review. The Department's staff report should reflect recommendations accordingly.

Data Sources

The following data sources were used to support the Cost of Service Analysis and Fee Establishment phases of this Study:

- The City's wages and counts information for typical tree planting and concrete cut crew staffing configurations per the Fiscal Year 2017-18 adopted budget
- Various correspondences with the City staff supporting the adopted budget, including budget notes and expenditure detail not shown in the published document
- Cost Allocation Plan 37, which provided overhead cost escalation factors per the Los Angeles City Controller
- The Board of Public Works and Bureau of Street Services Joint Report No. 1, which discussed the Department's initial analysis and recommendations for a Tree Replacement and Planting In-Lieu Fee
- 2015 State of the Street Trees Report, provided by the Bureau of Street Services
- Time estimate data from City staff regarding each service proposed to result in a new fee
- Cost estimates provided by City Plants for various project types and sizes related to this Study. Information reflects the most current information available from City Plants.

The City's adopted budget is the most significant source of information affecting cost of service results. NBS did not audit or validate the City's financial management and budget practices, nor was cost information adjusted to reflect different levels of service or any specific, targeted performance benchmarks. This Study has accepted the City's budget as a legislatively adopted directive describing the most appropriate and reasonable level of City spending. Consultants accept the City Council's deliberative process and ultimate acceptance of the budget plan and further assert that through that legislative process, the City has yielded a reasonable expenditure plan, valid for use in setting cost-based fees.

Section 2 – Conclusion

Regardless of the operational scenario chosen by the City for implementation of a tree replacement and planting in-lieu program, resulting fee amounts adopted through this Study should be adjusted on an annual basis to keep pace at a minimum with cost inflation. For all fees and charges, the City could use either a Consumer Price Index adjustment or a percentage of Labor Cost increase, and that practice would be well applied to the new fee schedule. It should be noted that when an automatic adjustment is applied annually, the City is free to use its discretion in applying the adjustment; not all fees need to be adjusted, especially when there are good policy reasons for an alternate course. The full cost of service is the City's only limit in setting its fees.

Conducting a comprehensive User Fee Study is not an annual requirement; it becomes worthwhile only over time as significant shifts in organization, local practices, legislative values, or legal requirements change. However, because the proposed fee program is new, NBS initially recommends the Department revisit the analysis once one to two years of data has been collected on typical project sizes (number of trees) and actual efforts involved (tracked time and/or time tracking sample). Afterwards, in NBS' experience, a comprehensive analysis is sufficient every three to five years.

As a final note in this Study, it is worth acknowledging the path that fees in general have taken in California. The public demands ever more precise and equitable accounting of the basis for governmental fees and a greater say in when and how they are imposed. It is inevitable in the not too distant future that user fees and regulatory fees will demand an even greater level of analysis and supporting data to meet the public's evolving expectations. Technology systems will play an increased and significant role in an agency's ability to accomplish this. Continuous improvement and refinement of time tracking abilities will greatly enhance the City's ability to set fees for service and identify unfunded activities in years to come. Fees collected for the purposes described in this report should not be comingled with other fees and expenses should be tracked separately, such as through unique work orders or other method of recording work efforts that will enable the City to easily compile and analyze data in the future for adjusting fees.

Disclaimer: In preparing this report and the opinions and recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, conditions and events that may occur in the future. This information and assumptions, including the City's budgets, time estimate data, and workload information from City staff, were provided by sources we believe to be reliable; however, NBS has not independently verified such information and assumptions. While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

City of Los Angeles Board of Public Works
 Tree Replacement and Planting In –Lieu Fee Study Fiscal Year 2018
 Fully Burdened Hourly Rate Calculation

ATTACHMENT A

Tree Planting Crew ^[1]																
Individual Staff Positions		FY 18 Wages and Count + CAP 37 Overhead Rates ^[1,3]									Fully-Burdened Hourly Rate (FBHR) Calculation					
Title	FTE	Base Hours	Holiday/ Sick/ Vacation ²	Net Paid Productive Hours	Salary	Benefits	Division Overhead	Department Admin	Central Services	Total	Salary Rate	Benefits Rate	Division Overhead Rate	Department Admin Rate	Central Services Rate	Total FBHR
TREE SURGEON SUPVSR I	1.00	2,080	320	1,760	\$ 92,155	\$ 41,663	\$ 198,723	\$ 9,151	\$ 5,926	\$ 347,618	\$ 52	\$ 24	\$ 113	\$ 5	\$ 3	\$ 198
LIGHT EQUIP OPERATOR	1.00	2,080	320	1,760	65,300	29,522	140,813	6,484	4,199	246,318	37	17	80	4	2	140
TRUCK OPERATOR	1.00	2,080	320	1,760	60,979	27,569	131,495	6,055	3,921	230,019	35	16	75	3	2	131
TREE SURGEON	4.00	8,320	1,280	7,040	249,680	112,880	538,410	24,793	16,054	941,818	35	16	76	4	2	134
TREE SURGEON ASST	3.00	6,240	960	5,280	165,315	74,739	356,485	16,416	10,630	623,585	31	14	68	3	2	118
ST SVCS SUPV	1.00	2,080	320	1,760	98,572	44,564	27,245	9,788	6,338	186,508	56	25	15	6	4	106
EQUIPMNT OPERATOR	1.00	2,080	320	1,760	93,317	42,189	25,793	9,266	6,000	176,565	53	24	15	5	3	100
MTCE & CONST HELPER	2.00	4,160	640	3,520	109,542	49,524	30,277	10,878	7,044	207,264	31	14	9	3	2	59
Total - Tree Planding Crew	14.00	29,120	4,480	24,640	\$ 934,860	\$ 422,650	\$ 1,449,242	\$ 92,832	\$ 60,111	\$ 2,959,695	\$ 38	\$ 17	\$ 59	\$ 4	\$ 2	\$ 120

Notes

[1] Source: Wages and Count file for typical crew size provided by DPW

[2] Source: Holiday / Sick / Vacation time estimated by DPW at 3 weeks vacation, 12 days of sick leave, and 13 City Holidays

[3] Cost Allocation Plan 37, per Los Angeles City Controller, includes various rates for benefit and overhead cost escalators

City of Los Angeles Board of Public Works
 Tree Replacement and Planting In-Lieu Fee Study Fiscal Year 2018
 Cost of Service Estimate for Fee Related Services and Activities

ATTACHMENT B

Fee No.	Fee Description	Notes	TREE SURGEON SUPVSR I	LIGHT EQUIP OPERATOR	TRUCK OPERATOR	TREE SURGEON	TREE SURGEON ASST	ST SVCS SUPV	EQUIP OPERATOR	MTCE & CONST HELPER	TOTAL	Total Cost of Service Per Activity
			Estimated Average Labor Time Per Activity (hours)									
1	24" Box Tree											
	Tree, Stakes, Ties, Guards	[1]					n/a					\$ 143
	Trees, Stakes, Ties, Guards Replacement Factor (10%)						n/a					\$ 14
	Pre-Planning / Pre-Inspection		0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	\$ 74
	Planting		0.38	0.38	0.38	1.51	1.13	0.00	0.00	0.00	3.78	\$ 513
	Planting - Labor & Equipment Replacement Factor (10%)		0.04	0.04	0.04	0.15	0.11	0.00	0.00	0.00	0.38	\$ 51
	Concrete Cut (4x6) - Per tree well	[3]	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.19	2.38	\$ 193
	Watering (33 visits per year for 3 years)		0.00	0.00	0.00	5.81	5.81	0.00	0.00	0.00	11.62	\$ 1,463
	Watering - Replacement Factor		0.00	0.00	0.00	0.58	0.58	0.00	0.00	0.00	1.16	\$ 146
	Cost of water	[2]					n/a					\$ 17.47
	Cost of water Replacement Factor						n/a					\$ 1.75
	Post-Inspection		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	\$ 32
	Total per Tree		0.95	0.42	0.42	8.05	7.64	0.60	0.60	1.19	19.85	\$ 2,648
2	15 Gallon Tree											
	Tree, Stakes, Ties, Guards	[1]					n/a					\$ 45
	Trees, Stakes, Ties, Guards Replacement Factor (10%)						n/a					\$ 5
	Pre-Planning / Pre-Inspection		0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	\$ 74
	Planting		0.19	0.19	0.19	0.76	0.57	0.00	0.00	0.00	1.89	\$ 256
	Planting - Labor & Equipment Replacement Factor (10%)		0.02	0.02	0.02	0.08	0.06	0.00	0.00	0.00	0.19	\$ 26
	Concrete Cut (4x6) - Per tree well	[3]	0.00	0.00	0.00	0.00	0.00	0.60	0.60	1.19	2.38	\$ 193
	Watering (33 visits per year for 3 years)		0.00	0.00	0.00	5.81	5.81	0.00	0.00	0.00	11.62	\$ 1,463
	Watering - Replacement Factor		0.00	0.00	0.00	0.58	0.58	0.00	0.00	0.00	1.16	\$ 146
	Cost of water	[2]					n/a					\$ 17.47
	Cost of water Replacement Factor						n/a					\$ 1.75
	Post-Inspection		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	\$ 32
	Total per Tree		0.74	0.21	0.21	7.22	7.01	0.60	0.60	1.19	17.77	\$ 2,258

[Notes]

[1] Source NBS Survey of Comparative Vendors

[2] Cost of water provided by LADPW / LADPW

[3] Assumes 25% of full hours for concrete cut. Not all trees require concrete cut per LADPW staff

City of Los Angeles
 Tree In –Lieu - Fee Study FY 17/18
 Comparison of Charges for Tree Nursery Pricing

ATTACHMENT C

Fee No.	Fee Description	Comparative Vendors							
		ABC Nursery	AM Wholesale Nursery	Arbor Nursery Plus	AY Nursery	Baron Bros.	Boething Treeland	Brightview	Growest Nursery
24" Box Tree									
1	Pink Trumpet (<i>Handroanthus avellanadae</i>)	x	x	x	x	x	\$ 147.00	\$ 145	\$ 200.00
2	Tristania (<i>Lophostemon confertus</i>)	x	x	\$ 123.75	\$ 120.00	\$ 145.00	\$ 147.00	\$ 140	\$ 200.00
3	African Fern Pine (<i>Afrocarpus falacatus</i>)	x	x	x	\$ 120.00	\$ 135.00	x	\$ 145	\$ 200.00
4	Australian Willow (<i>Geijera parviflora</i>)	\$ 200.00	x	x	\$ 125.00	\$ 165.00	\$ 147.00	\$ 145	\$ 200.00
5	Chinese Pistache (<i>Pistacia chinensis</i>)	x	x	\$ 85.50	\$ 120.00	\$ 135.00	\$ 147.00	\$ 150	\$ 200.00
15 Gallon Tree									
1	Pink Trumpet (<i>Handroanthus avellanadae</i>)	\$ 56.50	x	x	x	x	\$ 51.00	\$ 45.00	x
2	Tristania (<i>Lophostemon confertus</i>)	\$ 56.50	x	x	\$ 35.00	\$ 40.00	\$ 48.00	\$ 40.00	x
3	African Fern Pine (<i>Afrocarpus falacatus</i>)	\$ 56.50	x	x	\$ 35.00	\$ 40.00	x	\$ 45.00	\$ 60.00
4	Australian Willow (<i>Geijera parviflora</i>)	\$ 56.50	x	x	x	x	x	\$ 45.00	x
5	Chinese Pistache (<i>Pistacia chinensis</i>)	\$ 56.50	x	x	\$ 35.00	\$ 38.00	\$ 52.00	\$ 45.00	\$ 60.00

City of Los Angeles
 Tree In –Lieu - Fee Study FY 17/18
 Comparison of Charges for Tree Nursery Pricing

ATTACHMENT C

Fee No.	Fee Description	Comparative Vendors							Summary
		Miramar Wholesale Nursery	Monrovia Growers	Norman's Nursery	Pacific Arbor Nursery	Sakaida Nursery	Valley Crest Tree Co.	Village Nurseries	
24" Box Tree									
1	Pink Trumpet (<i>Handroanthus avellanadae</i>)	x	x	\$ 150.00	x	\$ 130.00	x	x	
2	Tristania (<i>Lophostemon confertus</i>)	x	x	\$ 135.00	x	\$ 130.00	x	\$ 125.00	
3	African Fern Pine (<i>Afrocarpus falacatus</i>)	x	x	\$ 150.00	x	x	x	\$ 130.00	
4	Australian Willow (<i>Geijera parviflora</i>)	x	x	\$ 150.00	x	x	x	\$ 135.00	
5	Chinese Pistache (<i>Pistacia chinensis</i>)	x	x	\$ 150.00	x	\$ 130.00	x	\$ 130.00	
									Average
									\$ 143
15 Gallon Tree									
1	Pink Trumpet (<i>Handroanthus avellanadae</i>)	x	x	\$ 45.00	x	\$ 36.00	x	x	
2	Tristania (<i>Lophostemon confertus</i>)	x	x	\$ 38.00	x	\$ 36.00	x	\$ 42.00	
3	African Fern Pine (<i>Afrocarpus falacatus</i>)	x	x	\$ 45.00	x	x	x	\$ 46.00	
4	Australian Willow (<i>Geijera parviflora</i>)	x	x	\$ 45.00	x	x	x	\$ 45.00	
5	Chinese Pistache (<i>Pistacia chinensis</i>)	x	x	\$ 45.00	x	\$ 36.00	x	\$ 44.00	
									Average
									\$ 45

City of Los Angeles Board of Public Works
Tree Replacement and Planting In –Lieu Fee Study Fiscal Year 2018
CITY PLANTS COST ESTIMATES

ATTACHMENT D

Fee No.	Fee Description	Notes	Cost of Service Per Activity
1	24" Box Tree		
	Tree		\$ 150.00
	Tree Replacement Factor (10%)		\$ 15.00
	Required Pre-Inspection UFD		\$ 73.71
	Delivery Coordination, Indexing, Recording		\$ 10.50
	Delivery Coordination, Indexing, Recording Replacement Factor (10%)		\$ 1.05
	Devliery & Planting		\$ 375.00
	Replacement Planting (10%)		\$ 37.50
	Stakes, Ties, Arbor Guards		\$ 18.00
	Stakes, Ties, Arbor Guards Replacement Factor (10%)		\$ 1.80
	Concrete Cut (4x6 well) - Per tree well	[1]	\$ 144.00
	Watering (33 visits per year for 3 years): \$10 per visit		\$ 990.00
	Watering - Replacement Factor (10%)		\$ 99.00
	Required Post-Inspection UFD		\$ 31.60
	City of LA Accounting Support		\$ 240.00
	City Plants Administration / Staff Time		\$ 424.46
	Total per Tree		\$ 2,611.62
2	15 Gallon Tree		
	Tree		\$ 46.00
	Trees Replacement Factor (10%)		\$ 4.60
	Required Pre-Inspection UFD		\$ 73.71
	Delivery Coordination, Indexing, Recording		\$ 10.50
	Delivery Coordination, Indexing, Recording Replacement Factor (10%)		\$ 1.05
	Devliery & Planting - Labor & Equipment		\$ 169.00
	Planting - Labor & Equipment Replacement Factor (10%)		\$ 16.90
	Stakes, Ties, Arbor Guards		\$ 18.00
	Stakes, Ties, Arbor Guards Replacement Factor (10%)		\$ 1.80
	Concrete Cut (4x6 well) - Per tree well	[1]	\$ 144.00
	Watering (33 visits per year for 3 years): \$10 per visit		\$ 990.00
	Watering - Replacement Factor (10%)		\$ 99.00
	Required Post-Inspection UFD		\$ 31.60
	City Plants Administration / Staff Time		\$ 339.21
	Total per Tree		\$ 1,945.37

[Notes]

[1] Assumes 25% of full hours for concrete cut. Not all trees require concrete cut per LADPW staff