



**City of Los Angeles**

# **Los Angeles 5th Regional Investors Conference March 9, 2020**

## **Los Angeles Wastewater System**

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Bureau of Sanitation**



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## *Presentation Outline*

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- ❖ Introduction to Bureau of Sanitation
- ❖ Wastewater System Overview
- ❖ Financial Position
- ❖ Credit Profile

## ***Introduction to Bureau of Sanitation***

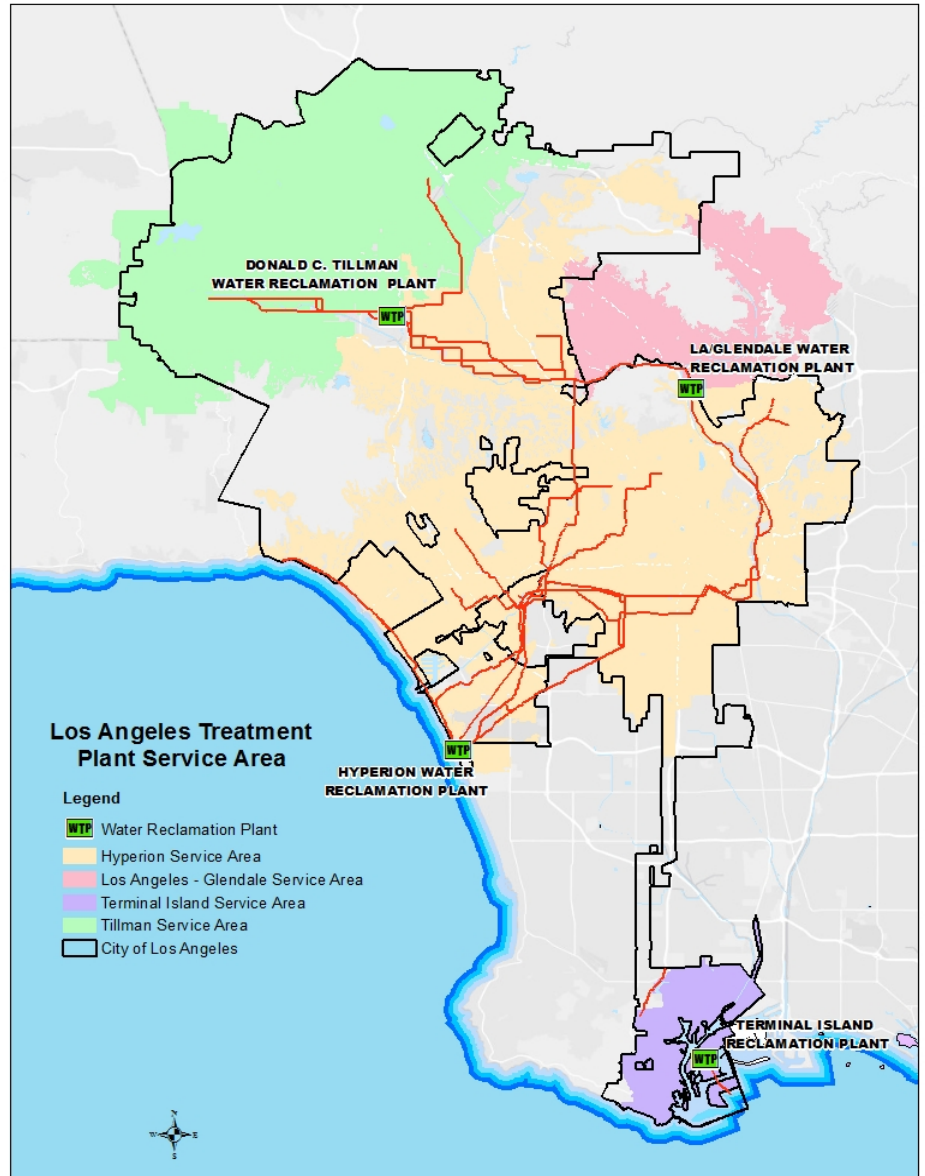
As the lead agency for the City's environmental programs and initiatives, the Bureau of Sanitation protects public health and the environment through the administration and management of four program areas: Clean Water (wastewater), Environmental Quality (homelessness services), Solid Resources (solid waste management) and Watershed Protection (stormwater).



These infrastructure programs collect, treat, recycle, and dispose the solid and liquid waste generated by the nation's second largest city of more than four million residents. Through these essential utility programs, Bureau of Sanitation delivers a triple bottom line of economic, environmental, and social benefits that sustain the quality of life in Los Angeles.

# System Overview

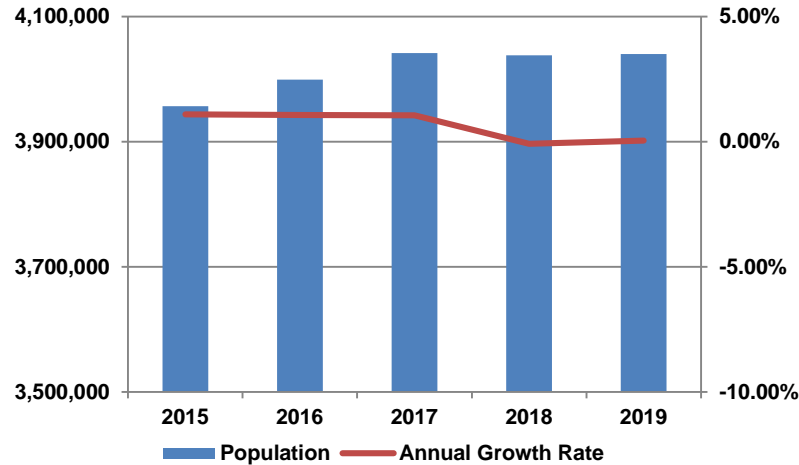
- ❑ “Built-out” System
  - 6,700 miles of mainline sewers
  - 7 main interceptor sewers
  - 49 pumping plants
  - 4 City-owned water reclamation plants
  
- ❑ System uses natural geography of LA basin to maximize gravity flow of sewers to 4 water reclamation plants
  
- ❑ 29 contracting agencies use the System and accounted for 12% of wastewater flow in Fiscal Year 2018-19
  
- ❑ Ratio of Average Flow to Capacity at Plants is 4:7



Source: Bureau of Sanitation

# Stable City Population & Solid and Established Customer Base

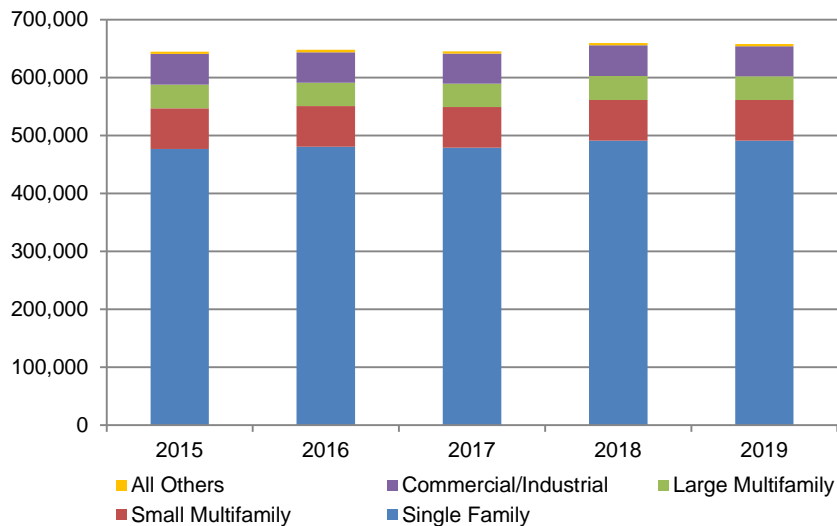
## City of Los Angeles Population



Source: State of California, Department of Finance

- Providing service to the 2<sup>nd</sup> largest City in the nation, the System's population base is large and stable

## Wastewater System Service Points



Source: Bureau of Sanitation

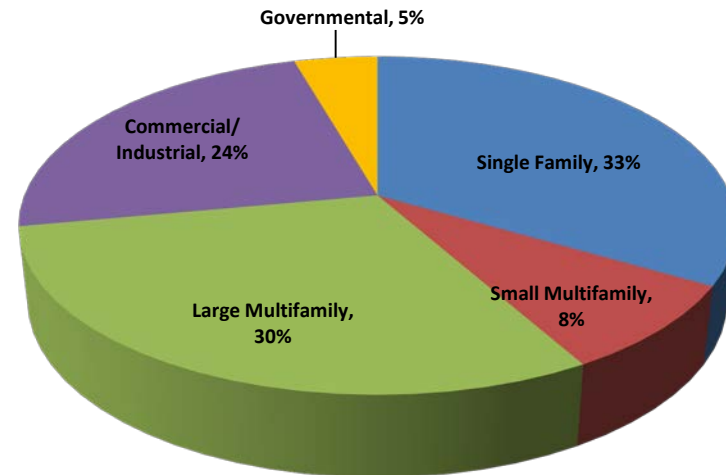
- Customer base, by category and in aggregate, has remained relatively constant for the last 5 years



## Wastewater System Customers for Fiscal Year 2018-19

- ❑ Ten largest customers comprised only 6% Fiscal Year 2018-19 sewer service charge revenues of \$623.0 million.
- ❑ Largest customers are stable:
  - Government
  - Universities
  - Healthcare provider
  - Large residential complexes

**Billable Wastewater  
Volume by  
Customer Class**



- ❑ While water conservation reduced flows four years ago, flows have since leveled off.

## *Regulatory Status*

- ❑ System is in compliance with all federal and state permits.
- ❑ Terminal Island Water Reclamation Plant received its 5-year National Pollutant Discharge Elimination System permit in 2015. The other three plants received their 5-year permits in 2017.
- ❑ City is a stakeholder in the process of developing State Water Resources Control Board Total Maximum Daily Loads that is expected to continue for the next decade.





## Bureau of Sanitation Strategic Plan Goal

### Recycled Water

- Recycle 100% of the City of Los Angeles wastewater by 2035 by implementing recycled water projects at Bureau of Sanitation Water Reclamation Plants

### Safe, Clean Water Program:

- By June 2020, develop a management and implementation structure for the Safe, Clean Water Program with Bureau of Sanitation
- Ensure the maximum return of parcel tax revenues to the City

### LA River:

- Make LA River the City's landmark with exemplary projects demonstrating the importance of water and its many beneficial uses

### Sustainability:

- By June 2020, prepare a Climate Action Plan to reduce Bureau of Sanitation's operational GHG emissions and climate-related risks
- Actively manage Bureau of Sanitation's climate impacts and contribute to achieving City-wide climate goals and by June 2021
- Complete LA's Biodiversity Index
- Enact policy to infuse biodiversity concepts into all city projects

Source: Bureau of Sanitation

## Mayor's Sustainable City pLAN

### Local Water

- Source 70% of L.A.'s water locally and capture 150,000 acre ft/yr (AFY) of stormwater by 2035
- Recycle 100% of all wastewater for beneficial reuse by 2035
- Build at least 10 new multi-benefit stormwater capture projects by 2025
- Reduce potable water use per capita by 22.5% by 2025

### Urban Ecosystems and Resilience

- Increase tree canopy in areas of greatest need by at least 50% by 2028
- Complete or initiate restoration identified in the 'ARBOR' Plan by 2035
- Create a fully connected LARiverWay public access system that includes 32 miles of bike paths and trails by 2028
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025
- Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65% by 2025
- Achieve 'no-net loss' of native biodiversity by 2050

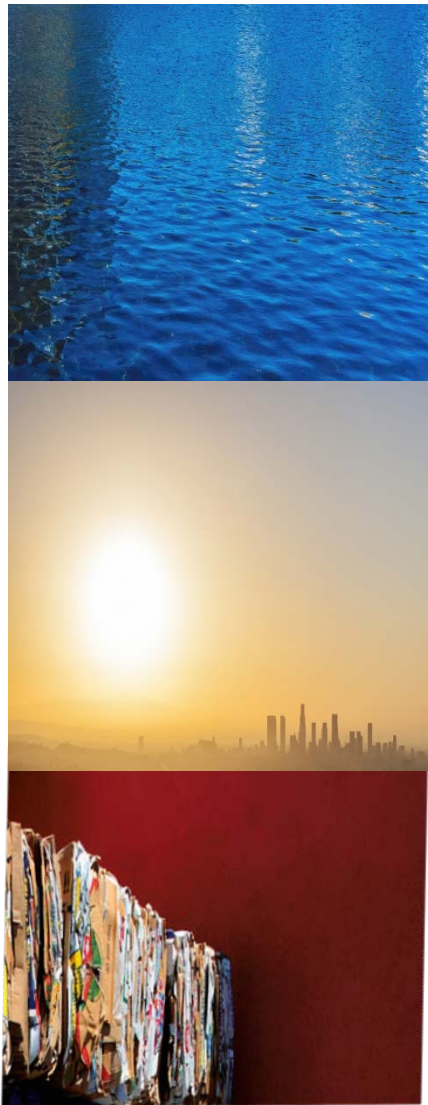
## *Recycled Water*

**On February 21, 2019 Mayor Garcetti announced that L.A. will recycle 100% of its wastewater by 2035:**

- 2% of the City's water supply comes from L.A.'s four water recycling facilities: Hyperion, L.A. Glendale, Tillman, and Terminal Island
- L.A. Glendale, Tillman, and Terminal Island are at 100% recycling capacity
- Hyperion receives 81% of the City's total wastewater and recycles 27% of the water that flows into the facility
- \$2 billion of anticipated improvements to Hyperion over the next 16 years
- Increasing Hyperion's recycling capacity to 100% will increase the City's water supply from the four recycling facilities from 2% to 35%.



# *Bureau of Sanitation is a Visionary Leader in Sustainability*



## City Vision

LA to lead the nation in water conservation and source the majority of our water locally

Will strengthen LA's economy by dramatically reducing GHG emissions and rallying other cities to follow our lead

LA to become the first big city in the US to achieve zero waste, and recycle and reuse most of its waste locally

## Bureau of Sanitation Initiatives

Implement/expand advanced treatment at all plants to produce recycled water for operational needs, irrigation and groundwater replenishment

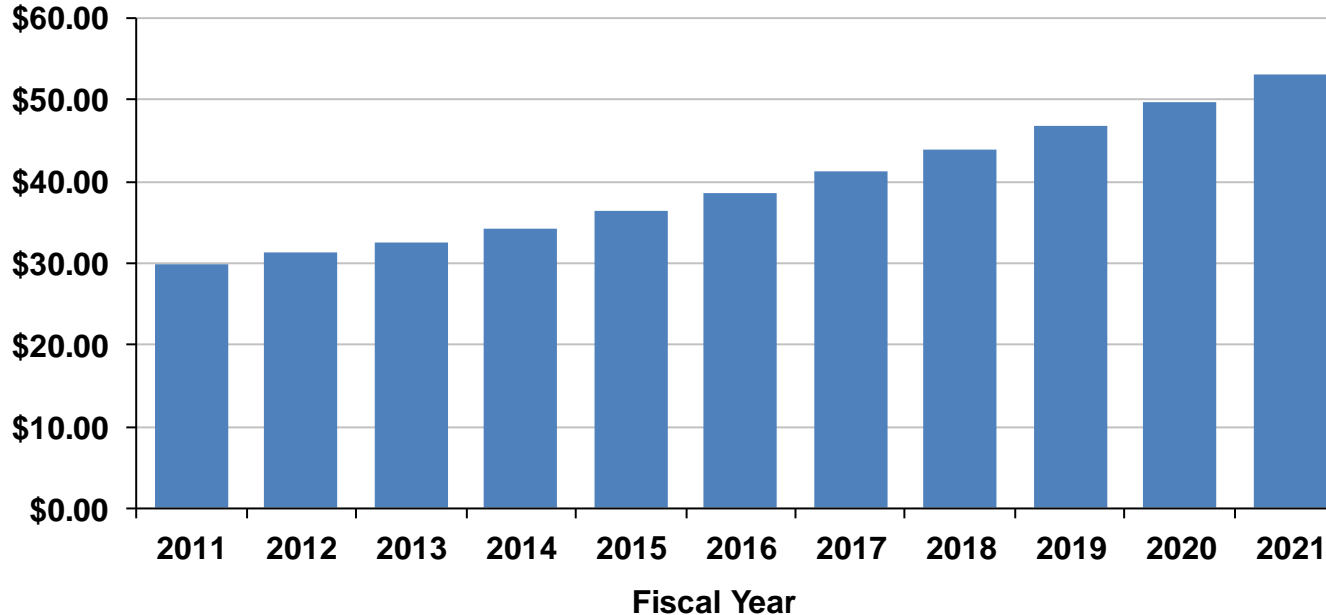
Construction of co-generation facility to power the largest water reclamation plant using renewable biogas

Process food and organic waste via anaerobic digesters to produce renewable energy or fuel for trucks and manage more waste locally

# Unprecedented 10-year Sewer Service Charge Increase Adopted

- ❑ February 2012 City action raised sewer rates annually through Fiscal Year 2020-21
  - Received unanimous Mayor and City Council support
  - No further City Council action required for annual rate increases during this time period
  - Effective as of April 6, 2012
- ❑ Gradual rate increase provides predictable revenue stream to support System operations
  - Annual increases already implemented for first nine years, 6.5% in this year

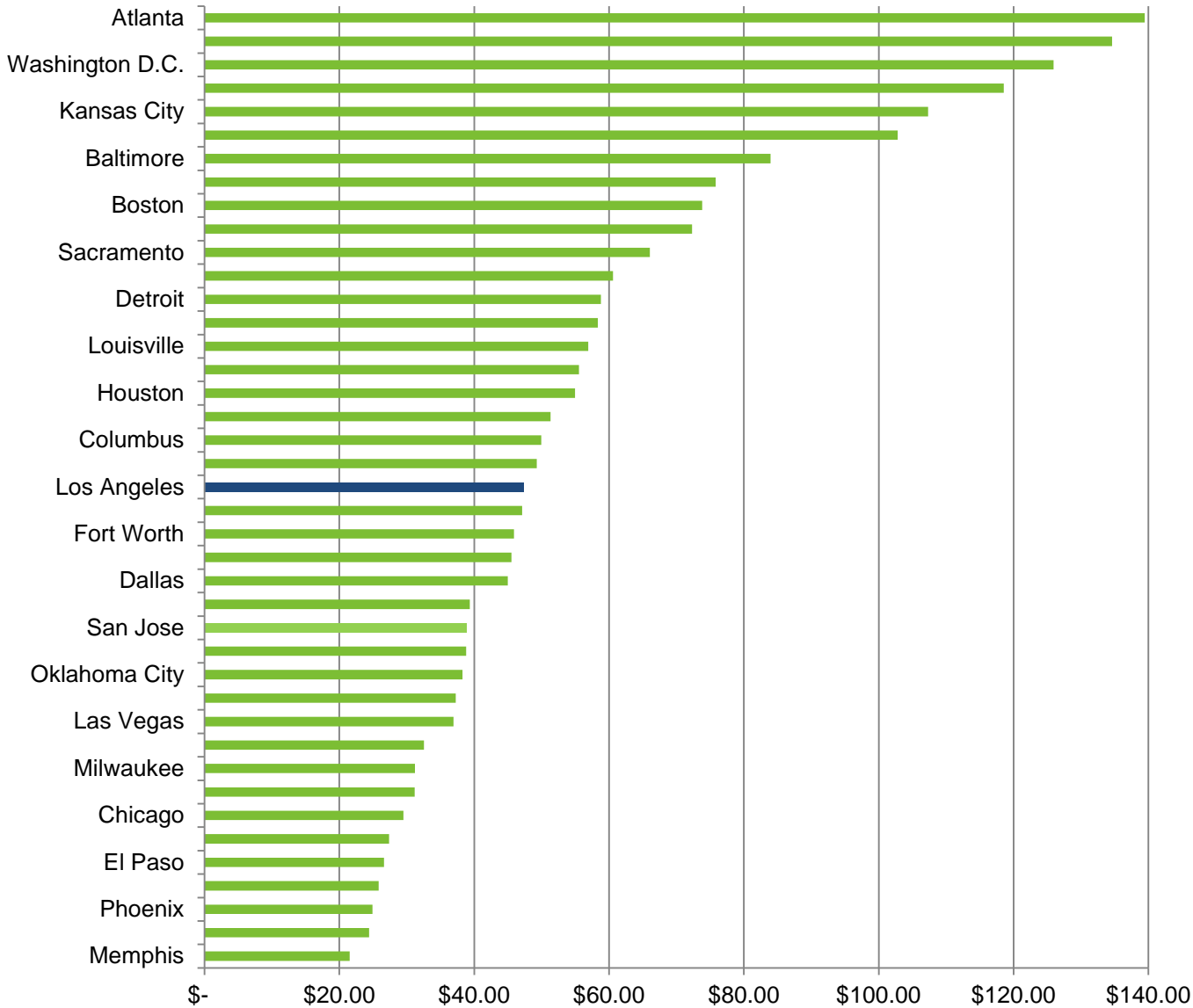
**Based on Typical Household Water Use as of 2011**



Source: Bureau of Sanitation



# Monthly Residential Sewer Service Charge – 40 Largest US Cities



- Typical monthly residential charge of \$47.31\* is moderate compared to other large cities
- Monthly bill rate represents 0.9% of per capita personal income for Los Angeles County

\* Assumes 7,500 gallons per month

Source: Black and Veatch Management Consulting, LLC – 50 Largest Cities Rate Survey 2019



# Summary of Historical Operating Results

## CASH BASIS (UNAUDITED) (in Thousands)

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Total Operating Revenues	\$ 572,641	\$ 607,386	\$ 624,662	\$ 651,685	\$ 699,711
Non-Operating Revenues	14,373	19,713	14,321	33,998	26,645
Total Revenues	\$ 587,014	\$ 627,099	\$ 638,983	\$ 685,683	\$ 726,356
Less Operating Expenses	283,317	270,233	288,730	308,191	345,127
Net Revenues	<u>\$303,697</u>	<u>\$356,866</u>	<u>\$ 350,253</u>	<u>\$ 377,492</u>	<u>\$ 381,229</u>
Senior Lien Debt Service	\$ 101,423	\$ 106,353	\$ 85,573	\$ 78,707	\$ 54,974
Debt Service Coverage	2.99x	3.36x	4.09x	4.8x	6.93x
Subordinate Debt Service	\$ 100,731	\$ 106,792	\$ 119,934	\$ 141,305	\$ 167,502
Total Debt Service	\$ 202,154	\$ 213,145	\$ 205,507	\$ 220,012	\$ 222,476
Debt Service without SRF Loans	188,549	199,540	191,902	206,407	208,871
Total Debt Service Coverage w/o SRF Loans	1.61x	1.79x	1.83x	1.83x	1.83x
Net Revenues After Debt Service	\$ 101,543	\$ 143,721	\$ 144,746	\$ 157,480	\$ 158,753
Non-operating Revenues	\$ 20,251	\$ 24,368	\$ 49,838	\$ 9,953	\$ 25,655
Non-operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Balance Available	<u>\$ 121,794</u>	<u>\$ 168,089</u>	<u>\$ 181,414</u>	<u>\$ 177,433</u>	<u>\$ 184,408</u>

- ❑ System operations have generated \$833 million in operating funds during five-year period to contribute to funding CIP

# Strong Historical Cash Balances

## Sewer Construction and Maintenance Fund Cash Balances (\$000's)

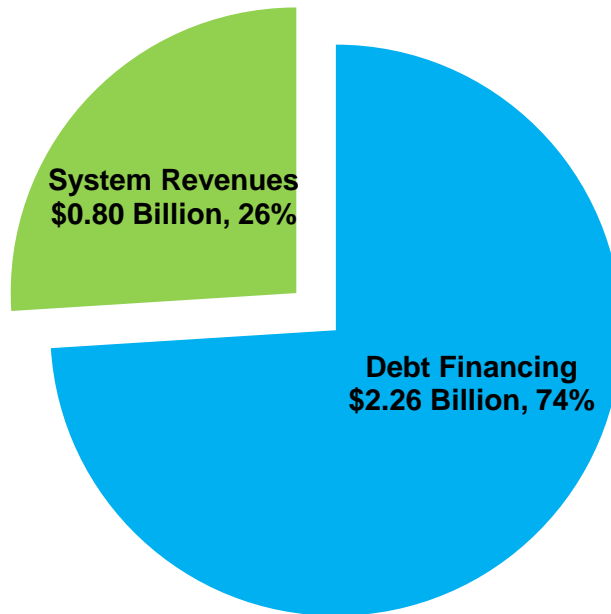
	Fiscal Year Ended June 30				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
<b>UNRESTRICTED FUNDS</b>					
Sewer Construction	\$56,950	\$66,217	\$31,602	\$97,540	\$49,635
Sewer Operation and Maintenance	41,535	45,359	48,110	10,206	15,997
Sewer Capital	<u>31,512</u>	<u>28,414</u>	<u>56,152</u>	<u>18,749</u>	<u>11,831</u>
<b>Construction Funds</b>	<u>0</u>	<u>0</u>	<u>262,538</u>	<u>0</u>	<u>0</u>
Total Unrestricted Funds	<u>\$129,997</u>	<u>\$139,990</u>	<u>\$398,402</u>	<u>\$126,495</u>	<u>\$77,463</u>
<b>RESTRICTED FUNDS</b>					
Construction Funds	\$252,054	\$110,364	\$0	\$168,576	\$281,725
Reserve Funds	108,407	108,356	102,413	103,807	102,310
Debt Service Funds	16,598	19,746	20,743	20,784	19,562
Operation and Maintenance (O&M) Reserve	36,981	37,099	39,590	41,495	45,741
Insurance and Liability Claims Funds	3,000	3,000	3,000	3,000	3,000
Emergency Fund	5,000	5,000	5,026	5,017	5,008
Rebate Funds	<u>366</u>	<u>366</u>	<u>366</u>	<u>530</u>	<u>167</u>
Total Restricted Funds	<u>\$422,406</u>	<u>\$283,931</u>	<u>\$171,138</u>	<u>\$343,209</u>	<u>\$457,513</u>
<b>TOTAL FUNDS</b>	<u>\$552,403</u>	<u>\$423,921</u>	<u>\$569,540</u>	<u>\$469,704</u>	<u>\$534,976</u>

❑ Fiscal Year 2018-19 Cash available for Operation & Maintenance (O&M) Expenses:

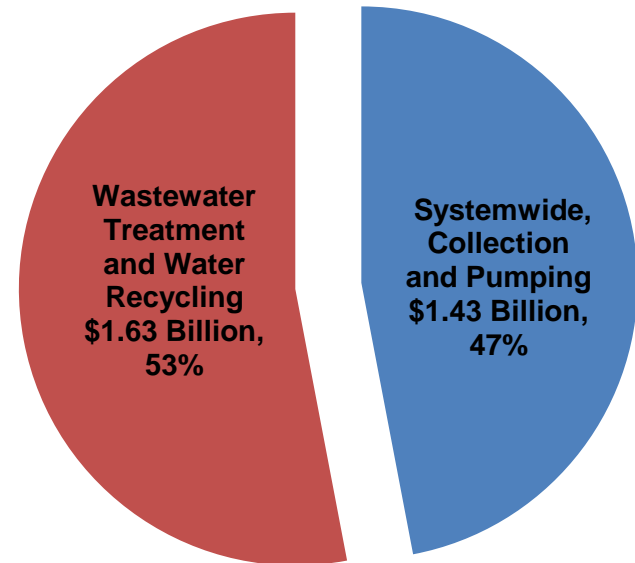
- Total unrestricted cash in Sewer Construction and Maintenance and Sewer Operation and Maintenance Funds of \$66 million, plus \$46 million in required O&M Reserves, plus \$5 million in Emergency Fund, aggregate to 123 days of operating expenses (shaded in blue)

# Anticipated Capital Improvement Program

## Projected CIP Funding Sources (Fiscal Years 2020-2029)



## Projected CIP Expenditures (Fiscal Years 2020-2029)



**Total - Projected CIP Expenditures & Funding Sources (Fiscal Years 2020-2029): \$3.06 Billion**

- ❑ 26% of CIP is projected to be funded through system revenues
- ❑ 47% of CIP costs are for collection system, which has an expected useful life in excess of 75 years

Source: Bureau of Sanitation

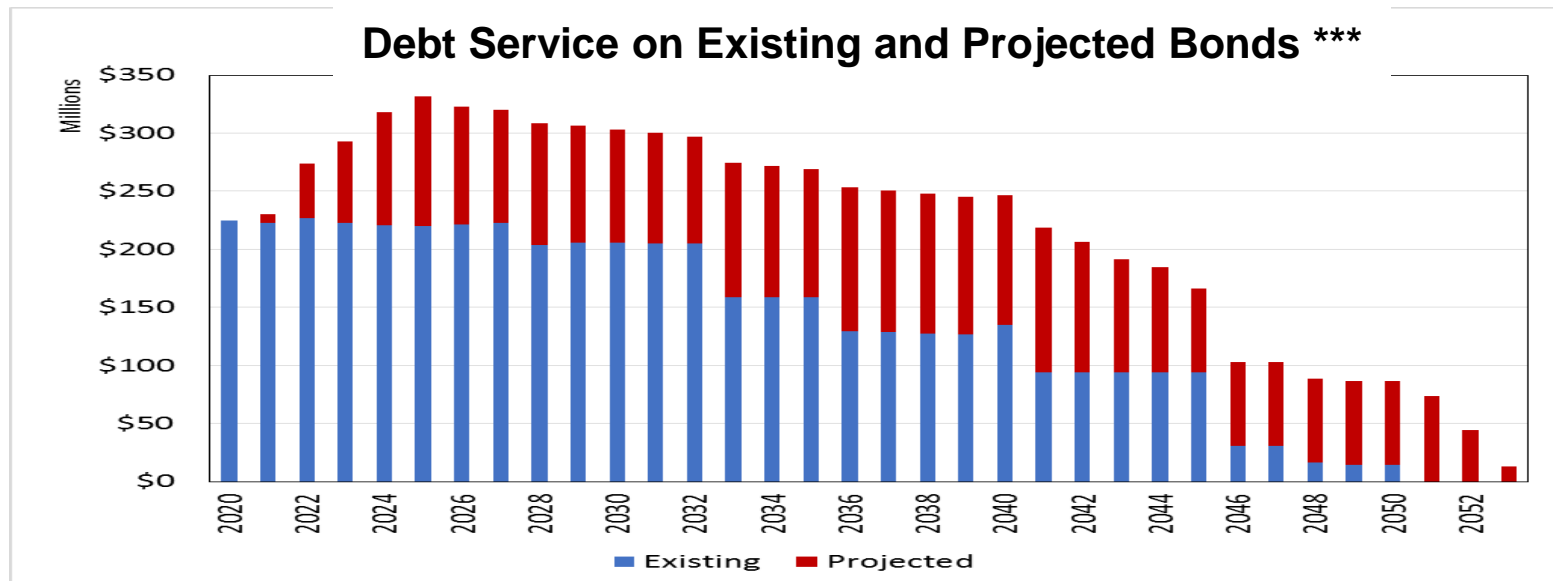


# Existing and Projected Debt

## Existing Debt as of January 2020

	<u>Fixed Rate</u>	<u>Variable Rate</u> **	<u>Total</u>
Senior Lien (AA+)*	\$ 1,014,220,000.00	\$ -	\$ 1,014,220,000.00
Subordinate Lien (AA)*	1,574,710,000.00	129,925,000.00	1,704,635,000.00
SRF Loans	64,377,240.29	-	64,377,240.29
<b>Total</b>	<b>\$ 2,653,307,240.29</b>	<b>\$ 129,925,000.00</b>	<b>\$ 2,783,232,240.29</b>

Estimated Bond Issuances	2020	\$0 Million	2022	\$285 Million	2024	\$452 Million
for New Money:	2021	\$300 Million	2023	\$393 Million		



\* Ratings from Fitch, Kroll, and Standard & Poor's

\*\* Includes Commercial Paper Notes and portion of Variable Rate bonds

\*\*\* Does not include debt service on SRF loans, which are subordinate to Subordinate Lien Bonds and Commercial Paper Notes

Source: Bureau of Sanitation



# Projected Operating Results

❑ Strong projected debt service coverage:

- Ratios are expected to range from 2.78x to 5.45x for Senior Lien Bonds and 1.51x to 1.76x for Subordinate Lien Bonds from Fiscal Year 2019-20 to 2023-24

## Debt Service Coverage (In Thousands)

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
<b>Projected Net Revenue</b>	<b>350,982</b>	<b>417,548</b>	<b>428,428</b>	<b>447,787</b>	<b>484,238</b>
Debt Service					
Existing Senior Lien Bonds	64,350	81,967	92,278	58,650	97,117
Additional Senior Lien Bonds	0	7,878	26,546	47,480	76,911
<b>Total Senior Lien Bonds</b>	<b>64,350</b>	<b>89,845</b>	<b>118,824</b>	<b>106,130</b>	<b>174,028</b>
Existing Subordinate Lien Bonds	161,659	140,443	134,769	164,387	123,428
Commercial Paper Notes	6,625	7,500	7,500	7,500	7,500
<b>Total Subordinate Lien Bonds</b>	<b>168,284</b>	<b>147,943</b>	<b>142,269</b>	<b>171,887</b>	<b>130,928</b>
<b>Total All Bonds and CP Notes</b>	<b>232,634</b>	<b>237,788</b>	<b>261,093</b>	<b>278,017</b>	<b>304,956</b>
Projected Debt Service Coverage:					
<b>Total Senior Lien Bonds</b>	<b>5.45x</b>	<b>4.65x</b>	<b>3.61x</b>	<b>4.22x</b>	<b>2.78x</b>
<b>Total Senior and Subordinate Debt</b>	<b>1.51x</b>	<b>1.76x</b>	<b>1.64x</b>	<b>1.64x</b>	<b>1.59x</b>

Source: Bureau of Sanitation



## Summary

- ❑ System serves one of the largest and most diverse service areas in the US
- ❑ Approved and implemented 10-year rate plan provides predictable funding stream and demonstrates political support for the Wastewater System
- ❑ Sound historical financial results with strong cash reserves
- ❑ Affordable and manageable capital improvement plan
- ❑ Previous water conservation reduced revenues, but has since leveled off. The reductions are not negatively impacting operations or debt service coverage.
  - Senior Lien Debt Service Coverage
    - ✓ FY 2020 – 2024: ranges from 2.78x to 5.45x
  - Total Senior and Subordinate Lien Debt Service Coverage
    - ✓ FY 2020 – 2024: ranges from 1.51x to 1.76x
- ❑ Use of non-bond funding keeps debt level moderate
- ❑ Continuous improvement in system reliability
- ❑ Ongoing commitment to sustainability



## Connecting with Bureau of Sanitation

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- For 24/7 service requests, dial 1-800-773-2489 or go online: [www.lacitysan.org](http://www.lacitysan.org)
- Connect with us on social media! @LACITYSAN



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- To contact, dial (213) 473-7500, email [cao.debt@lacity.org](mailto:cao.debt@lacity.org), or go online: [www.cao.lacity.org](http://www.cao.lacity.org)
- Natalie R. Brill, Chief of Debt Management