INITIAL STUDY

APPENDIX L.3: WATER SUPPLY ASSESSMENT REPORT

Los Angeles Department of Water & Power

RESOLUTION NO. _____

BOARD LETTER APPROVAL

ANSELMO G. COLLINS
Senior Assistant General Manager
Water System

MARTIN L. ADAMS
General Manager and Chief Engineer

DATE: November 16, 2022

SUBJECT: Water Supply Assessment – Echelon Studios Project

SUMMARY

The California Water Code, Sections 10910-10915, requires LADWP to prepare a Water Supply Assessment (WSA) for the Echelon Studios Project (Project) located within the City of Los Angeles (City). LADWP staff determined the net additional water demand for the Project is 90 acre-feet per year (AFY) and has concluded that this additional water demand can be accommodated by the City's water supply. The Project's baseline water demand was reduced by 8 AFY through implementation of the conservation ordinance and code requirements, and by approximately 0.2 AFY through voluntary water conservation measures applied to the Project. The governing body of each public water system has the responsibility to approve WSAs for major projects.

City Council approval is not required.

RECOMMENDATION

It is recommended that the Board of Water and Power Commissioners adopt the attached Resolution authorizing the WSA for the Project.

ALTERNATIVES CONSIDERED

LADWP is required by state law, as set forth in California Water Code Sections 10910-10915, to prepare this WSA for the Project. There are no other alternatives.

FINANCIAL INFORMATION

Santa Monica Boulevard Owner, LLC (Applicant), paid $17,000 to cover LADWP's expenses for preparation of this WSA.

BACKGROUND

WSAs are prepared in conformance with California law to ensure proposed projects that utilize water resources are consistent with LADWP's 2020 Urban Water Management Plan (UWMP). The UWMP serves as the master plan for the City's reliable water supply and resources management consistent with LADWP's goals and policy objectives. LADWP is committed to meeting all City's current and future water needs while increasing supply reliability, reducing imported water purchases, and increasing locally produced water.

Each WSA performed by LADWP is carefully evaluated within the context of LADWP's most recent UWMP. The 2020 UWMP identifies water supplies to meet a 25-year period water demands under three hydrologic scenarios, which are average year, single-dry year, and multiple-dry years. Furthermore, the Metropolitan Water District of Southern California (MWD), from whom LADWP purchases its imported State Water Project and Colorado River water supplies, has also been actively developing plans and making efforts to provide additional water supply reliability for the entire Southern California region as described in the MWD 2020 UWMP. LADWP coordinates closely with MWD to ensure implementation of MWD's water resource development plans.

LADWP's 2020 UWMP contains a water shortage contingency plan (WSCP) that was adopted in May 2021. The WSCP complies with the California Water Code, which requires a WSCP in the UWMP, and is based on the City's Emergency Water Conservation Plan. The WSCP establishes six standard water supply shortage levels and corresponding shortage response actions, which the City can take in the event of a water supply shortage.

Since 1993, LADWP has used an ascending tier rate structure that is entirely volumetric based pricing. LADWP's tiered volume water rates, which were last amended by the City's Water Rate Ordinance (Ordinance No. 184130) effective April 15, 2016, incorporate and further reinforce foundational water conservation, water use efficiency, and financial principles. A lower first tier rate is applied to water within a specified allocation and higher successive tier rate is applied to every billing unit exceeding the first-tier allocation.

Projected Water Use and Conservation

On July 26, 2022, the Los Angeles Department of City Planning (Planning Department), lead agency for the Project, requested LADWP perform a WSA. The Project's scope of

work includes the redevelopment of approximately 5.17 acres within the Hollywood Community Plan area of the City. The Project's site is generally bounded by Virginia Avenue to the north, Saint Andrews Place to the east, Santa Monica Boulevard to the south, and North Wilton Place to the west.

The Project site contains an existing surface parking lot and commercial building. The Project would demolish the existing 98,532 square feet (sf) building and remove the surface parking lot. The existing water demand associated with the demolished areas is approximately 0 AFY because the site has been vacant for a decade.

The Project will construct an approximately 510,620 sf commercial building. The building will contain offices, film and television production studios, and restaurant. The Project will also include a basecamp, covered parking, landscaping, and a cooling tower for the bungalow offices.

LADWP staff recommends implementation of additional voluntary water conservation measures to maximize the potential water-use efficiency for the Project. The recommended voluntary conservation measures are in addition to those required by the City's current codes and ordinances. Based on LADWP staff recommendations, the Applicant has voluntarily committed to implement additional measures for the entire project. LADWP will request Planning Department to include the implementation of the water conservation commitments as part of their California Environmental Quality Act (CEQA) review process for the Project. The Applicant's written commitment of the Project's planned voluntary water conservation measures is attached with the WSA in Appendix B, and summarized as follows:

- Fixtures
    - Showerheads with a flow rate of 1.75 gallons per minute (gpm) in lieu of 1.8 gpm

- Landscape and irrigation
    - Rotating sprinkler nozzles for landscape irrigation (0.5 to 1.0 gpm)

With these voluntary water conservation measures, which yield the savings of approximately 0.2 AFY, the net additional water demand is approximately 90 AFY.

The Applicant has also committed to comply with the City of Los Angeles Low Impact Development Ordinances (City Ordinance Nos. 181899 and 183833) and to implement Best Management Practices (BMP) that have stormwater recharge or reuse benefits for the entire Project as applicable and feasible. BMP may include, but is not limited to:

- Cistern – captures stormwater runoff as it comes down through the roof gutter

The Planning Department has indicated that the Project conforms with the use and

intensity of development permitted by the City's General Plan. The Planning Department has also determined that the Project is consistent with the demographic projections for the City from the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) by the Southern California Association of Governments. The City's water demand projection in 2020 UWMP was developed based on the 2020 RTP/SCS demographic projection. LADWP used a service area-wide method to develop the City's water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. The 2020 UWMP concluded there are adequate water supplies to meet projected water demands through 2045. Therefore, projected water supplies available during normal, single-dry, and multiple-dry water years as included in the 25-year projection of 2020 UWMP are sufficient to meet the projected water demand associated with the Project, in addition to the existing and planned future demand on LADWP.

ENVIRONMENTAL DETERMINATION

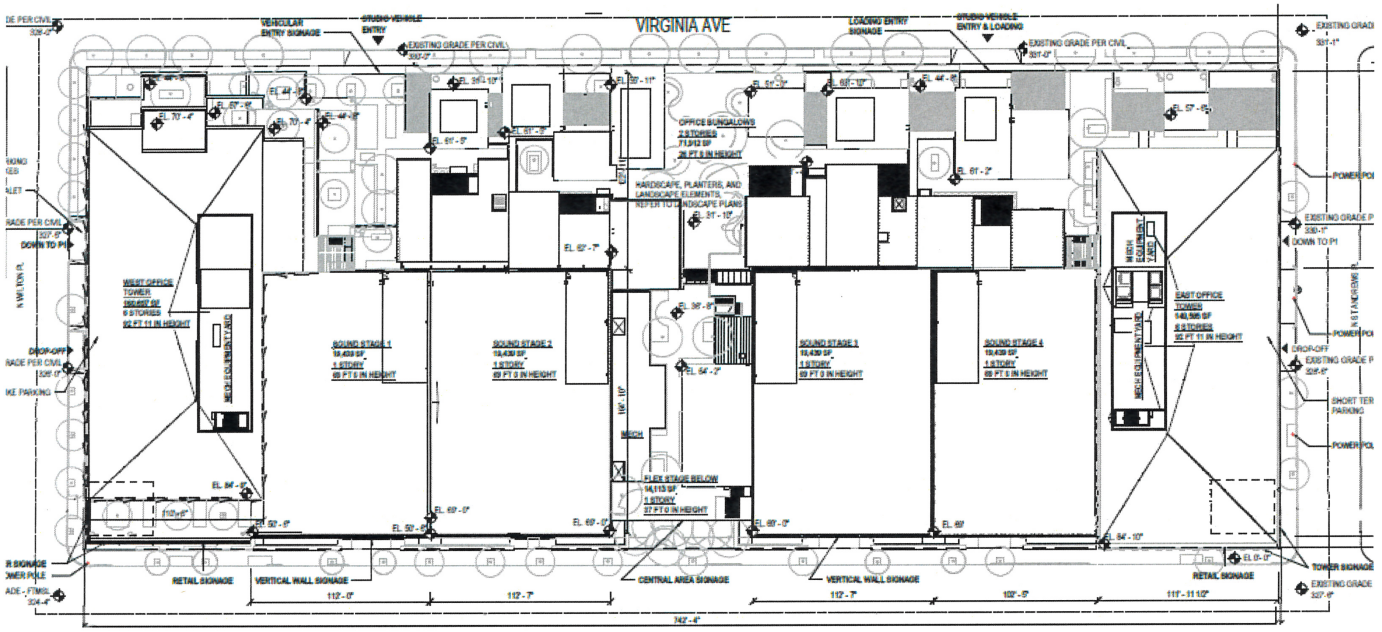
Determine item is exempt pursuant to CEQA Guidelines Section 15060(c)(2). In accordance with this section, an activity is not subject to CEQA if it will not result in a direct or reasonably foreseeable indirect physical change in the environment. The Project WSA will not result in any physical change in the environment. Therefore, this activity is not subject to CEQA.

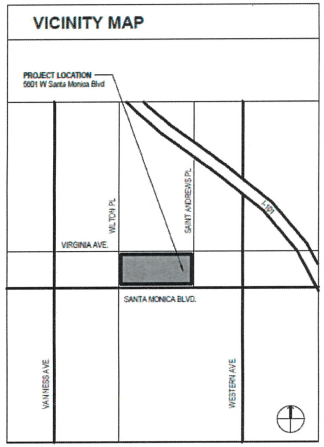
CITY ATTORNEY

The Office of the City Attorney reviewed and approved the Resolution as to form and legality.

ATTACHMENTS

- Map of Proposed Project
- Resolution
- Water Supply Assessment





Echelon Studios
Project Site Plan

RESOLUTION NO. _____

WHEREAS, the Los Angeles Department of Water and Power (LADWP) constitutes a public water system pursuant to California Water Code (CWC) Section 10912, subdivision (c); and

WHEREAS, the Echelon Studios Project (Project) qualifies as a project under CWC Section 10912, subdivisions (a)(3) and (7); and

WHEREAS, the Project is located in the service area of LADWP's water supply system, and LADWP would serve the area of the Project development; and

WHEREAS, on July 26, 2022, the City of Los Angeles (City) Department of City Planning (Planning Department) requested LADWP conduct a Water Supply Assessment (WSA) for the Project, and LADWP has prepared a WSA for the Project in compliance with CWC Sections 10910-10915; and

WHEREAS, the Project would redevelop approximately 5.17 acres within the Hollywood Community Plan area of the City; and

WHEREAS, the applicant, Santa Monica Boulevard Owner, LLC, has agreed to implement additional conservation measures, as described in WSA, that are in addition to those required by law; and

WHEREAS, LADWP staff performed the water demand analysis and determined the net increase in total water demand for the Project is 90 acre-feet per year; and

WHEREAS, the Project is determined by Planning Department to be consistent with the demographic projections for the City from the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy by the Southern California Association of Governments; and

WHEREAS, LADWP anticipates that its projected water supply available during normal, single-dry, and multiple-dry water years as included in the 25-year projection contained in its adopted 2020 Urban Water Management Plan can accommodate the projected water demand associated with the Project, in addition to the existing and planned future demands on LADWP; and

WHEREAS, in accordance with CWC Section 10910 (g) (1) the Board of Water and Power Commissioners (Board) has the responsibility for approval and certification of WSAs prepared by LADWP; and the Board has independently reviewed and considered the WSA and documentation making up the administrative record; and

WHEREAS, a publicly noticed Board hearing was held with respect to this item, and the Board considered evidence presented by LADWP's Water Resources Division staff, the staff recommendation to approve the WSA, and other comments from interested parties at the public hearing.

NOW, THEREFORE, BE IT RESOLVED that the Board finds that LADWP can provide sufficient domestic water supplies to the Project area and approves the WSA prepared for the Project, now on file with the Secretary of the Board, and directs that the WSA and a certified copy of Resolution be transmitted to the Planning Department.

BE IT FURTHER RESOLVED that the Board finds that LADWP's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demands associated with the Project in addition to existing and planned future uses including agricultural and industrial uses.

BE IT FURTHER RESOLVED that the Board has considered the WSA prior to making a decision to approve the WSA, and finds that the WSA is adequate and was prepared in accordance with Water Code Section 10910 (c) (2), and meets the requirements of Water Code Section 10910 (d), (e), (f), and (g).

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a Resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held

_____
Secretary

APPROVED AS TO FORM AND LEGALITY
MICHAEL N. FEUER, CITY ATTORNEY

NOVEMBER 17, 2022

BY Tina Shim
TINA SHIM
DEPUTY CITY ATTORNEY

WATER SUPPLY ASSESSMENT

FOR THE ECHELON STUDIOS PROJECT

Prepared by:

Water Resources Division

Prepared on

November 7, 2022

Table of Contents

References

1. California Department of Water Resources California's Groundwater Bulletin 118 (Update 2003)
2. Upper Los Angeles River Area Watermaster Report for 2017/2018 (Update December 2019)
3. Los Angeles Department of Water and Power's 2020 Urban Water Management Plan
4. Metropolitan Water District of Southern California's 2020 Urban Water Management Water Plan
5. California Code of Regulations Title 23. Waters, Division 2. Department of Water Resources, Chapter 2.7. Model Water Efficient Landscape Ordinance
6. City of Los Angeles' Department of Public Works Bureau of Sanitation (LASAN) Sewer Generation Rates Table (Updated 2012)

Appendices

A. City of Los Angeles, Department of City Planning letter, Request for Water Supply Assessment, received on July 26, 2022, and Scope Confirmation e-mail received on October 4, 2022
B. Water Conservation Commitment Letter
C. Project Location Map
D. Adjudicated Groundwater Basin Judgments
E. Water Supply Assessment Provisions – California Water Code, Sections 10910-10915
F. Metropolitan Water District of Southern California's Appendix A
G. Water Supply Assessment Checklist

Introduction

Proposed major projects subject to certain requirements in the California Water Code Sections 10910-10915 require that a city or county identify any public water system that may supply water to the Echelon Studios Project (Project) and request the public water system provide a Water Supply Assessment (WSA). The WSA is a determination by the water supplier that the demands associated with the Project were included in its most recently adopted 2020 Urban Water Management Plan (UWMP) showing that there is an adequate 20-year water supply. The Los Angeles Department of Water and Power's (LADWP) 2020 UWMP serves as the City of Los Angeles' (City) master plan for reliable water supply and resources management consistent with the LADWP's goals and policy objectives.

The City of Los Angeles Department of City Planning (Planning Department), serving as the lead agency as prescribed by the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), for the Project, has identified LADWP as the public water system that will supply water to the Project site. In response to Planning Department's request for a WSA on July 26, 2022, LADWP has performed the assessment contained herein.

The WSA is prepared to meet the applicable requirements of state law as set forth in California State Water Code Sections 10910-10915. Significant references and data for this WSA are from LADWP's 2020 UWMP, adopted by the Board of Water and Power Commissioners (Board) on May 25, 2021. LADWP's 2020 UWMP is incorporated by reference and is available through LADWP's website, www.ladwp.com/uwmp.

LADWP's 2020 UWMP details LADWP's plans to meet all of the City's current and future water needs. Faced with increasing water demands and extended dry periods, LADWP is addressing the challenge of providing a reliable water supply for a growing population by expanding local water supply programs and reducing demands on purchased imported water. LADWP continues to make significant investments in local groundwater, recycled water, stormwater capture, and water conservation and use efficiency to diversify its water supply portfolio. In April 2019, LADWP, in conjunction with the City, developed short-term and long-term sustainability targets through LA's Green New Deal (Green New Deal), to form a more reliable and resilient water supply. For more information on the Green New Deal, it is available for download at http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf.

Findings

The Project is estimated to increase the total net water demand within the site by 90 acre-feet (AF) annually based on review of information submitted by Planning Department. The total net water demand included additional water use efficiency measures that the Santa Monica Boulevard Owner, LLC (Applicant) has committed to include in the Project. Therefore, LADWP finds adequate water supplies will be available to meet the total additional water demand of 90 AF annually for the Project. LADWP anticipates the projected water demand from the Project can be met during normal, single-dry, and multiple-dry water years, in addition to the existing and planned future demands on LADWP.

The basis for approving WSAs for projects is LADWP's most recently adopted UWMP. LADWP's water demand forecast, as contained in LADWP's 2020 UWMP, uses long-term demographic projections for population, housing, and employment. The California Urban Water Management Planning Act requires water suppliers to develop a UWMP every five years to identify short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years. If the projected water demand associated with the Project was not accounted for in the most recently adopted LADWP 2020 UWMP, the WSA must include a discussion with regard to whether LADWP's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the Project, in addition to LADWP's existing and planned future uses.

The City's water demand projection in LADWP's 2020 UWMP was developed based on the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) demographic projection by the Southern California Association of Governments (SCAG). The demographic projection was provided to LADWP from the Metropolitan Water District of Southern California (MWD), who collaborates with SCAG to aggregate demographic data for each of its 26 member agencies. LADWP's 2020 UWMP identified water supplies to meet projected water demands through 2045. Therefore, the City's water supply projections in LADWP's 2020 UWMP are sufficient to meet the water demand for projects that are determined by the CEQA lead agency to be consistent with the 2020 RTP/SCS by SCAG.

The Planning Department has indicated that the Project conforms with the use and intensity of development permitted by the City's General Plan. The Planning Department has also determined that the Project is consistent with the demographic projections for the City from the 2020 RTP/SCS. Based on the information provided by Planning Department, the anticipated water demand for the Project is within LADWP's 2020 UWMP projected water supplies for normal, single-dry, and multiple-dry years through the year 2045 and is also within the LADWP 2020 UWMP 25-year water demand growth projection. This WSA can be approved based on the fact that the Project's water demand falls within the LADWP 2020 UWMP projected increase in LADWP's service area water demands. Additionally, LADWP's 2020 UWMP contains a water shortage contingency plan (WSCP) that was adopted in May 2021. The WSCP complies with the California Water Code and is based on the City's Emergency Water Conservation Plan. The WSCP establishes six standard water supply shortage levels and corresponding shortage response actions, which the City can take in the event of a water supply shortage. Furthermore, the City has utilized ordinances as a tool to reduce water demand since 1988. See section 3.0 Water Conservation for more information on the City's water conservation efforts.

This WSA approval addresses the City's long-term water supply and demand forecasts to accommodate the Project. It is not an approval for water service connection. A separate request shall be made to LADWP requesting an evaluation of water service connection for the Project. Also, this WSA is an informational document required to be prepared for use in the Planning Department's environmental review of the Project under CEQA, and it assesses the adequacy of water supplies to serve the Project and cumulative demand. Approval of this WSA is not equivalent to approval of the Project.

The Echelon Studios Project Description

The following project information was obtained from Planning Department's WSA Request Letter and the scope confirmation e-mail (Appendix A):

Project Name:	Echelon Studios
Lead Agency:	Planning Department
Community Plan:	Hollywood Community Plan

The Project will redevelop an approximately 5.17-acre site of commercial land use within the Hollywood Community Plan area of the City. The Project site is generally bounded by Virginia Avenue to the north, Saint Andrews Place to the east, Santa Monica Boulevard to the south, and North Wilton Place to the west.

The Project site currently contains a 98,532 square feet (sf) commercial building. As part of the project, the existing building and surface parking will be demolished. The existing water demand associated with the site is zero acre-feet per year (AFY) because the building has been vacant for the past decade.

The Project will construct approximately 510,620 sf commercial building. It will consist of 388,286 sf of offices, 109,957 sf of film and television production studios, and 12,378 sf of restaurant. The Project will also include a basecamp, landscaping, covered parking, and a cooling tower that will serve the bungalow offices.

LADWP staff performed the water demand analysis and determined the net increase in water demand for the Project is 90 AFY.

A subsequent revised WSA may be required if one or more of the following occurs:

1. Changes in the Project result in a substantial increase in water demand for the Project
2. Changes in the circumstances or conditions substantially affecting the ability of LADWP to provide a sufficient supply of water for the Project
3. Significant new information becomes available which was not known and could not have been known at the time when WSA was prepared.

If deemed necessary, the Applicant may request a revised WSA through the Planning Department.

The Echelon Studios Project Water Demand Estimate

The projected total net water demand increase for the Project is estimated to be 90 AF annually. This amount took account of savings due to water conservation ordinances which are approximately 8 AFY, and savings due to additional voluntary conservation measures which is approximately 0.2 AFY.

In evaluating the Project's water demand, the Sewer Generation Factors (SGF), published by the City of Los Angeles Department of Public Works Bureau of Sanitation (LASAN) in 2012, are applied to the Project scope for calculating indoor water use. SGFs are factors of how much wastewater is generated (gallons per day) per unit (per sf, per dwelling unit, per seat, etc.). LASAN publishes a list of SGFs for approximately 175 different building use types in the City, and updates factors to make necessary adjustments due to water conservation efforts and increased efficiencies in new appliances and plumbing fixtures. Outdoor landscape water demand is estimated per California Code of Regulations Title 23 Division 2 Chapter 2.7 Model Water Efficient Landscape Ordinance. Historical billing records may be used to estimate the existing baseline water demand on the property. LADWP also encouraged the Project's Applicant to implement additional water conservation measures above and beyond the current water conservation ordinance requirements in order to reduce the Project's total proposed water demand.

The net increase in water demand, which is the projected additional water demand of the Project, is calculated by subtracting the existing baseline water demand and water saving amount from the total proposed water demand.

Table I shows a breakdown of the existing and proposed new types of uses for the Project, and the corresponding estimated volume of water usage with the implementation of the required and voluntary conservation measures for this project. Types of use were derived from the WSA Request Letter and the scope confirmation e-mail in Appendix A.

Table II shows an estimation of the total volume of additional water conservation based on conservation measures the Applicant has committed for the Project (Appendix B).

TABLE I
Echelon Studios Project
Calculated Total Additional Water Demand

Existing Use to be Removed[1]	Quantity	Unit			Existing Water Use to be Removed (gpd)	Existing Water Use to be Removed (af/y)
Retail and Commercial Space[2]	98,532	sf			0	**0**
Existing to be Removed Total					**0**	**0**

Proposed Use[1]	Quantity	Unit	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings[4] (gpd)	Proposed Water Demand (gpd)	Proposed Water Demand (af/y)
Offices & Production Office[5] (P1, Level 1, 2, 3, 4, 5, 6)	394,905	sf	0.12	47,389			
Sound Stages (Level 1)	77,756	sf	0.05	3,888			
Mill (Level 1)	11,468	sf	0.05	573			
Flex Stage (Level 1)	14,113	sf	0.05	706			
Restaurant Seating Area (Indoor)[6] (Level 1 and 3)	545	seats	30.00	16,350			
Restaurant Seating Area (Outdoor)[6] (Level 1 and 3)	280	seats	30.00	8,400			
Basecamp[7]	53,505	sf	0.03	1,605			
Base Demand Adjustment[8]				1,366			
Commercial Total				**80,277**	**4,923**	**75,354**	**84.41**
Landscaping and Pools[9]	19,751	sf		**1,896**	**1,043**	**853**	**0.96**
Covered Parking[10]	489,092	sf	0.02	**322**	**0**	**322**	**0.36**
Cooling Tower - Weekday	250	ton	16.30	4,074			
Cooling Tower - Weekend	50	ton	6.52	326			
Cooling Tower Total[11]				**4,400**	**880**	**3,520**	**3.94**
			Proposed Subtotal	**86,895**	**6,846**	**80,049**	**89.67**
					Less Existing to be Removed Total	**0**	**0**
					Less Additional Conservation[12]	**-138**	**-0.15**
					Net Additional Water Demand	**79,911 gpd**	**90 af/y**

[1] Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A. Proposed Uses that do not have additional water demands are not shown here.

[2] The existing retail building will be demolished at the property. The existing building has been vacant for the past 10 years.

[3] Indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at https://engpermitmanual.lacity.org/sewer-s-permits/technical-procedures/sewage-generation-factors-chart

[4] The proposed development land uses will conform to City of Los Angeles Ordinance No. 186488, 184248, 2020 Los Angeles Plumbing Code, and 2020 Los Angeles Green Building Code.

[5] Office area consists of 388,286 square feet (sf) of general offices and 6,619 sf of Production Office.

[6] Restaurant Space. Total Indoor Restaurant Floor Area is 8,172 sf. Total Outdoor Restaurant Area is 4,206 sf. A factor of 1 seat for every 15 sf was applied to determine the total number of seats for the indoor and outdoor space.

[7] Basecamp areas are dedicated to media production uses, parking, loading, and storage, where mobile facilities related to production are temporarily staged. Basecamp areas are not included in the total floor area.

[8] Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of Bureau of Sanitation Sewer Generation Rates.

[9] Landscaping & water features' water use is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance. Water feature has an 8' diameter and surface area of 50 sf. Total landscaping is 19,701 sf.

[10] Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumption.

[11] The 250 ton cooling tower services the bungalow offices and will operate 10 to 12 hours/day from Monday through Friday throughout the year. For the weekend cooling load of intermittent operations, 20 percent of the weekday cooling load is assumed for a conservative estimate of 50 tons.

The others areas of the building will be served by air-cooled systems.

[12] Water conservation due to additional conservation commitments agreed by the Applicant. See Table II.

Abbreviations: sf- square feet gpd - gallons per day af/y - acre feet per year

TABLE II
Echelon Studios Project
Estimated Additional Water Conservation

Conservation Measures[1]	Quantity[2]	Units	Water Saving Factor[3] (gpd/unit)	Water Saved (gpd)	Water Saved (af/y)
Showerheads (1.75 gallons per minute)	10	ea	1.25	13	0.01
Commercial Total				**13**	**0.01**
Landscaping Total Conservation[4]				**125**	**0.14**
Total Additional Water Conserved =				**138**	**0.15**

[1] Water conservation measures agreed to by the Applicant. See Appendix B.
[2] Plumbing fixture quantities were provided by the Applicant.
[3] Based on LADWP estimates.
[4] Landscaping water conservation is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

Abbreviations: gpd - gallons per day af/y - acre feet per year ea – each

Los Angeles Department of Water and Power – 2020 UWMP

The California Urban Water Management Planning Act (first effective on January 1, 1984) requires every urban water supplier prepare and adopt a UWMP every five years in compliance with state guidelines and requirements. The main goals of UWMPs are to forecast future water demands and water supplies under average and dry hydrologic conditions, identify future water supply projects, and provide a reliability assessment under average, single dry year, and multi-dry years, and assess near term drought risk management.[1]

LADWP's 2020 UWMP, available for reference through www.ladwp.com/uwmp, serves two purposes: (1) it serves as the master plan for the City's reliable water supply and resources management consistent with LADWP's goals and policy objectives, and (2) it fulfills LADWP's obligations under the California's Urban Water Management Planning Act, as codified in California Water Code (CWC) Division 6, Part 2.6, Section 10610, et seq.[2]

Water Supplies

The Los Angeles Aqueducts (LAA), local groundwater, purchased water from MWD, and recycled water are the primary sources of water supplies for the City. Table III shows LADWP water supplies from FYE 2017 to FYE 2021 from these sources.

TABLE III
LADWP Water Supply

Fiscal Year Ending	Los Angeles Aqueducts (AF)	Local Groundwater (AF)	MWD (AF)	Recycled Water (AF)	Transfer, Spread, Spills, and Storage (AF)	Total (AF)
2017	224,724	50,439	216,299	8,032	9,350	490,144
2018	307,671	21,760	182,706	9,778	-200	522,116
2019	312,456	32,233	137,775	7,512	1,710	488,266
2020	292,095	34,363	152,647	9,641	1,155	487,591
2021	128,268	51,070	316,627	11,455	-938	508,359

Note: Units are in AF.

[1] *City of Los Angeles Department of Water and Power 2020 Urban Water Management Plan*, at ES-2.

[2] *Id.* at 1-1.

1.0 Los Angeles Aqueduct

The City receives surface water and groundwater from the Eastern Sierra Nevada Mountains through the Los Angeles Aqueduct (LAA). LADWP constructed the first LAA in 1913 to convey water from the Eastern Sierra to the City. In 1940, the LAA was extended 40 miles north from the Owens River to the Mono Basin. To meet additional water demands from the City, a second barrel of the LAA was constructed and completed in 1970. The second LAA increased the City's capacity to deliver water from the Mono Basin and the Owens Valley from 485 cubic feet per second (cfs) to 775 cfs. The value of the City's historical investment in the LAA system is substantial because the City has benefited from the LAA's delivery of high-quality, cost-effective water supplies from the Eastern Sierra for over a century.

The City's water rights in the Eastern Sierra Nevada are comprised of riparian rights, pre-1914 appropriations, and post-1914 appropriation licenses held on various streams in the Mono Basin and Owens Valley. The most significant basis for export of surface water from the Eastern Sierra Nevada is an appropriation claim in 1905 to divert up to 50,000 miner's inches (1,250 cfs) from the Owens River. Up to 16,000 AFY can be supplied from Mono Basin, which is permitted by the 1994 Mono Lake Basin Water Right Decision 1631. Decision 1631 set a limit on LADWP water exports from the Mono Basin, which were set to a range of 0 to 16,000 AFY based on Mono Lake's water elevation. Aside from the primary surface water rights, the groundwater right in the Owens Valley is managed under the 1991 Long Term Water Agreement (LTWA) and uses vegetation water demand and available soil moisture to determine whether groundwater wells can be pumped. Since 1991, the average annual pumping from Owens Valley wellfields has been less than 75,000 AF compared to 107,000 AF from 1974 to 1990.

Annual water deliveries from the LAA to the City are impacted by hydrologic variability in the Eastern Sierra Nevada and water set aside for environmental projects. At its peak in fiscal year ending (FYE) 1984, the LAA delivered 531,729 AF to the City. Concerns over environmental impacts have required the City to reallocate approximately one-half of the LAA water supply to other uses within the Owens Valley and Mono Basin. Between 1992 and 2020, LADWP reduced deliveries to the City by approximately 177,000 AF to supply water for a variety of environmental projects throughout the Eastern Sierra. Environmental enhancement and mitigation projects in the Mono Basin and Owens Valley that utilize water from the Eastern Sierra include Mono Basin releases, Lower Owens River Project, Owens Lake Dust Mitigation Program, as well as other environmental enhancement and mitigation projects and uses. The expected annual LAA delivery over the next 25 years will range from approximately 184,200 AFY to 192,000 AFY for average years.

The sole reliance on LAA supply with impacts due to natural variability and water set aside for environmental projects is not sufficient to meet the City's annual water demands; therefore, LADWP has implemented, and continues to increase, stormwater capture, local groundwater, water conservation, water use efficiency, and water recycling programs to mitigate the reduction of LAA supplies. Additionally, LADWP can purchase supplemental imported water from MWD to meet the City's remaining water demands.

For additional information, refer to Chapter 4 "Los Angeles Aqueduct System" of LADWP's 2020 UWMP.

2.0 Local Groundwater Supplies

Local groundwater provided approximately 8 percent of LA's total water supply, from FYE 2017 to FYE 2021. This amount significantly differs from fifty years ago when local groundwater provided up to 23 percent of total supply during extended dry periods. In recent years, contamination issues have impacted LADWP's ability to fully utilize its local groundwater entitlements and provide groundwater supplies to support annual water demands. In response to this issue and to address the hydrologic variability impacts to imported water supplies, LADWP has a focus on sustainable management of its local groundwater basins. LADWP continues to invest in stormwater recharge projects to restore local groundwater basin levels as well as advanced treatment systems to produce purified recycled water for groundwater replenishment. Furthermore, LADWP has, and will continue to, conjunctively use this large groundwater basin within the City to store wet year LAA flows to supply water during dry periods.

The City's total adjudicated water rights are approximately 109,809 AFY, which are located within the San Fernando Basin (SFB), Sylmar Basin, Central Basin, and West Coast Basin. There are additional groundwater basins near and within the Los Angeles area, such as the unadjudicated Hollywood, Santa Monica, and northern Central Basins that may provide additional groundwater supplies for the City.

The SFB is the primary source of local groundwater for the City. It is located in the Upper Los Angeles River Area (ULARA) and spans 112,000 acres. The ULARA encompasses the San Fernando and Sylmar Basin. It is managed by a court-appointed Watermaster and administrative committee that oversees the operation of GW system and report the groundwater elevations and water quality. The average SFB groundwater rights is approximately 87,000 AFY. LADWP is implementing its SFB Groundwater Remediation Program to help restore the capacity of SFB as a drinking water source and groundwater storage. LADWP is implementing the following groundwater remediation facilities:

1. North Hollywood West Response Action is expected to be operational in mid-2023.
2. Tujunga Response Action is expected to be operational in late 2023.
3. North Hollywood Central Response Action is expected to be operational in mid-2023.

LADWP receives additional SFB water through the Los Angeles-Burbank Interim Interconnection Pipeline. In 2015, the City of Los Angeles and the City of Burbank entered into an agreement to construct and operate the Los Angeles-Burbank Interim Interconnection and began delivery of a minimum of 500 AF of blended water in August 2019. The blended water consists of SFB groundwater treated at the Burbank Operable Unit and Metropolitan Water District of Southern California imported water supply. This connection began service in August 2019 and will operate for five years.

The Central Basin is another source of groundwater supply for the City. The Central Basin Watermaster oversees this area that is located in the southeastern part of the Los Angeles Coastal Plan in Los Angeles County. The City has approximately 17,236 AFY of groundwater rights in this basin. With additional carryover and storage of unused water rights, the City has accrued a total of 22,943 AF of stored water as of FYE 2020. LADWP has completed the Manhattan Wells Improvement Project and it began operation in March 2022. LADWP is also

implementing the 99th St. Filtration Plant Project to address several issues such as water quality matters, deteriorating groundwater pumps, and necessary upgrades. This project is expected to be completed in 2025.

Besides the SFB and Central Basin, the City holds water rights in the following local groundwater basins:

1. The Sylmar and Eagle Rock basins are adjudicated basins, managed by the ULARA, that provides 3,570 AF and 500 AF, respectively. The majority of the Sylmar Basin's groundwater production facilities are inoperable due to high levels of contamination and deteriorated facilities. The Mission Wellfield facility underwent continued improvements since the early 2000's to replace the existing deteriorated facilities and restore Sylmar Basin groundwater production capacity. The facility has been in operation since early 2022. And, although the City has the right to produce groundwater from Eagle Rock Basin, there are no current plans to establish groundwater production facilities here.
2. The West Coast Basin is managed by the West Coast Basin Watermaster and is located in the southwestern part of the Los Angeles Coastal Plain in Los Angeles County. LADWP has the right to pump 1,503 AF. In 2014, the West Coast Basin Judgment was amended to increase certain parties', like LADWP's, pumping capacity to 5,000 AFY of unused West Coast Basin rights out of the Central Basin. This basin has groundwater quality problems related to TDS, chloride, and hydrocarbon pollutants; therefore, LADWP has discontinued use of West Coast Basin facilities in 1980 until further studies are completed to restore groundwater pumping.

Groundwater produced by the City from the San Fernando, Sylmar, and Central Basins for the last available five years are shown in Table IV.

Table IV
Historical Local Groundwater Production by Basin

Fiscal Year (July-June)	San Fernando (AF)	Sylmar (AF)	Central (AF)
2016-2017	55,116	0*	3,005
2017-2018	22,259	0*	1*
2018-2019	36,870	1*	5*
2019-2020	35,949	2*	10*
2020-2021	53,625	1,368*	2,247

*Small quantities pumped from Sylmar and Central Basin were for water quality testing purposes, not water supply

LADWP also has groundwater rights outside the of City. There are 3,975 AF of groundwater rights in the Antelope Valley Groundwater Basin. This basin only allows the native water rights to be used locally; however, LADWP would have the ability to store water it imports into the basin for future export. LADWP would be able to recover imported and stored water for export to

the City at times when it is necessary to manage seasonal peak demand or augment supplies during dry periods, emergencies, or natural disasters.

The Central and West Los Angeles areas of the City overlie the unadjudicated groundwater basins from Hollywood Basin, Santa Monica Basin, and the northerly area of Central Basin located outside of the adjudicated Central Basin boundary. LADWP is considering and exploring opportunities to develop groundwater resources in these manners that is locally sustainable and in cooperation with its regional partners to increase the City's use of local resources. Since the Sustainable Groundwater Management Act (SGMA) took effect on January 1, 2015, LADWP had been working with regional partners towards implementing a SGMA Groundwater Sustainability Plan (GSP) for the Santa Monica Basin. In September 2017, Department of Water Resources (DWR) approved the formation of the Santa Monica Basin Groundwater Sustainability Agency (SMGSA), which consisted of LADWP and four other local agencies. The SMGSA submitted the final GSP to DWR in January 2022.

For additional information, refer to Chapter 5 "Local Groundwater" of LADWP's 2020 UWMP.

3.0 Water Conservation

Water conservation and water use efficiency have significant effects on the City's water use patterns and their benefit to reducing water demands and pressure on other water supplies have become a permanent part of LADWP's water management philosophy. The City's water usage today is the same as over fifty years ago despite an increase in population of over one million people, reflecting the success and importance of the City's water conservation strategies. In the future, conservation will continue to be an important part of maintaining long term supply reliability and is a key component of LADWP's goals to reduce potable water use per capita by 22.5 percent and 25 percent by 2025 and 2035, respectively. Also, LADWP will comply with the State's water use requirements of Assembly Bill 1668 (2018) and Senate Bill 606 (2018) once finalized and adopted.

LADWP has developed many progressive water conservation and use efficiency programs in conjunction with state and local conservation ordinances and plumbing codes to achieve water conservation throughout its service area and customer classes. Since inception of LADWP's conservation program, the estimated cumulative annual active savings is over 150,000 AFY. Additional savings are passive savings, achieved from codes, ordinances, and changes in customer behavior due to outreach and educational programs.

The state and local conservation ordinances and plumbing codes help LADWP to achieve water conservation throughout its service area and customer classes. Since 1988, the City has utilized ordinances as a tool to reduce water waste, beginning with the adoption of its first version of a plumbing retrofit ordinance. The latest applicable ordinances are: 2009 City's "High Efficiency Plumbing Fixture", 2016 Citywide Water Efficiency Standards Ordinance, 2015 Model Water Efficient Landscape Ordinance (MWELO), and the 2016 Emergency Water Conservation Plan (Conservation Ordinance). The Conservation Ordinance was developed for the City to implement water demand management measures in case of a water supply shortage and to

respond to ongoing dry conditions. For a full list of Conservation Ordinance prohibited water uses for various phases, please refer to LADWP's 2020 UWMP.

LADWP also achieves and maintains water use reductions through the application of tiered volumetric water rates. Since 1993, LADWP has used an ascending tier rate structure that is entirely volumetric based pricing. LADWP's tiered volume water rates, which were last amended by the City's Water Rate Ordinance (Ordinance No. 184130) with the effective date of April 15, 2016, incorporate and further reinforce foundational water conservation, water use efficiency, and financial principles. A lower first tier rate is applied to water within a specified allocation, and higher successive tier rate is applied to every billing unit exceeding the first tier allocation.

LADWP offers rebates and incentives to promote the installation of water-efficient fixtures and appliances. In 2008, MWD's region-wide SoCal Water$mart Program for residential and commercial water use efficiency rebates replaced previous LADWP rebate programs. This program administers uniform rebate amounts across the MWD service area to all MWD member agencies like LADWP. LADWP takes full advantage of regional programs for many product rebates offered through MWD for the residential and Commercial, Industrial, and Institutional (CII) sector, and adds supplemental funding to increase the rebate amount provided for LADWP customers for many qualifying products. Also, since 1992, LADWP has continued the Technical Assistance Program to promote innovative solutions to saving water. The program provides customized incentives for retrofitting water-intensive equipment in the CII or multi-family customer sector.

LADWP plans its future water conservation programs, focusing on obtaining additional active and passive water savings in the water end uses that have the most non-conserving devices still remaining for each of the customer sectors. LADWP has recently launched or is currently developing the following programs:

- CalConserve Loan Program
- Cooling Tower/Water Fixture Inventory
- Free Turf Replacement Landscape Design Services for Single-Family Residential Customers
- Home Water Use Reports all Single-Family Residential Customers Real-Time Monitoring Devices for Customers

LADWP will continue to actively monitor the per capita water use, particularly in the context of all existing and new standards to ensure that target reductions are met in the future. Additional information on water conservation programs can be found in Chapter 3 "Water Conservation" of LADWP's 2020 UWMP and at www.ladwp.com/uwmp.

4.0 Stormwater Capture

Stormwater runoff from urban areas is an underutilized local water resource. Within the City, the majority of stormwater runoff is directed to storm drains and ultimately channeled into the ocean. This unused stormwater carries many pollutants that are harmful to marine life and public health. In addition, local groundwater aquifers that could be replenished by stormwater are receiving less recharge than in past historical times due to increased urbanization. Urbanization has increased the City's hardscape, which has resulted in less infiltration of stormwater and a decline in groundwater elevations. In response, LADWP completed a Stormwater Capture Master Plan in 2015 to comprehensively evaluate stormwater capture potential within the City. Stormwater capture can be achieved by increasing infiltration into groundwater basins and by onsite capture and reuse of stormwater for landscape irrigation (i.e., direct use). The total baseline amount of stormwater captured is 64,000 AF. Through the implementation of additional centralized and distributed stormwater capture projects and programs, in development and in construction, it will provide for increased groundwater recharge in the amount of 66,000 AFY and increased direct use in the amount of 2,000 AFY. Under LADWP's current implementation strategy, the total estimated stormwater capture capacity is projected to be 155,000 AFY by 2035. This amount is between the conservative estimate of 132,000 AFY and aggressive scenario of up to 178,000 AFY by 2035.

LADWP utilizes various strategies to respond to hydrologic variability to maintain supply reliability. One of the strategies, known as conjunctive use, is storing supplies when available to help minimize the impacts of water shortages during future dry periods. Since the 1930's, LADWP has recognized the greater operational flexibility provided by a storage program. LADWP has operated its groundwater resources conjunctively by reducing groundwater pumping and diverting water from the LAA into the Tujunga and Pacoima Spreading Grounds. Another strategy is to capture a large portion of stormwater flows, especially during wet years, through the centralized stormwater capture projects. The captured stormwater is a major source for replenishing groundwater supplies through spreading basins where it is infiltrated into underlying groundwater aquifers. Groundwater recharge will address the overall long-term decline in groundwater basin elevations, protect the safe yield of the groundwater basin, and ensure the long-term water supply reliability of the San Fernando Basin (SFB). The 2020 UWMP projects that by 2045 there will be a minimum of 15,000 AFY of increased groundwater pumping in the SFB due to increased groundwater recharge through centralized stormwater infiltration. Anticipating that stored groundwater will rebound in response to enhanced groundwater recharge, LADWP will work with the ULARA Watermaster to continue observing actual basin elevations and re-evaluate basin safe yield to allow additional increases in groundwater production over time as SFB elevations rebound.

Flood control facilities are the primary means to divert native runoff into the spreading basin facilities. LADWP coordinates stormwater capture related activities, such as collection and delivery of large stormwater runoff to spreading basins, with Los Angeles County Flood Control District to effectively recharge the SFB. Completed in November 2021, the Tujunga Spreading Grounds Upgrade Project increased stormwater capture capacity by 8,000 AFY to a total of 16,000 AFY.

LADWP's Stormwater Capture Parks Program (Parks Program) has identified nine City-owned parks suitable for stormwater capture projects. The primary objective of the Parks Program is to recharge the San Fernando Valley Groundwater Basin by capturing urban runoff and diverting

stormwater from the Tujunga Wash Central Branch storm drain. The anticipated Parks Program capture capacity is 3,088 AFY. The Parks Program provides multiple benefits, such as improvements to the Los Angeles River water quality, reducing localized flooding, raising public awareness, and providing open space enhancements through active and passive recreation space.

The other method to capture stormwater is through distributed stormwater capture facilities. Distributed stormwater/runoff capture refers to capturing localized dry and wet weather runoff. While centralized stormwater capture plays a key role in groundwater recharge in the City, space constraints limit opportunities for new large centralized facilities, and the City has changed the focus towards distributed stormwater capture. Distributed stormwater capture includes stormwater management Best Management practices that utilize vegetation, soils, and natural processes to manage stormwater runoff close to the source. Distributed facilities also aim to conserve water by capturing stormwater for uses that reduce potable water demand.

For additional information, refer to Chapter 6 “Watershed Management” of LADWP’s 2020 UWMP.

5.0 Water Recycling

As early as 1960, the City recognized the potential for water recycling and invested in infrastructure that produced water of tertiary quality, a high treatment standard for wastewater. In 1979, LADWP began delivering tertiary quality recycled water to the Department of Recreation and Parks for irrigation of various areas in Griffith Park. Today LADWP serves approximately 179 sites in the City with recycled water for irrigation, industrial, and environmental beneficial uses. There are approximately 200 individual customer service accounts, with several projects containing multiple customer accounts at a single location. Recycled water produced for FYE 2021 was 37,060 AFY, inclusive of municipal and industrial, and environmental reuse.

LADWP is committed to maximizing use of recycled water in the City’s water supply portfolio. Expansion of recycled water use to offset potable demands has been recognized as one method that will help LADWP achieve its goal of improving the local sustainability of its water supply. LADWP is working in conjunction with LASAN to develop non-potable reuse projects for irrigation and industrial uses. In addition, the City is pursuing a groundwater replenishment project to replenish the San Fernando Groundwater Basin with highly treated recycled water. LADWP’s recycled water use is projected to reach 50,900 AFY by FYE 2025 by adding 8,000 AFY of planned municipal/industrial use and 7,000 AFY of indirect potable reuse (groundwater replenishment), and further increase to 67,600 AFY through FYE 2045. Environmental reuse is expected to remain relatively constant at approximately 26,600 AFY. For more information on the latest LADWP’s existing and planned recycled water pipelines and projects, please see Recycled Water Annual Report available at the following link: www.ladwp.com/recycledwaterreport.

For additional information, refer to Chapter 7 “Recycled Water” of LADWP’s 2020 UWMP.

6.0 Metropolitan Water District of Southern California

MWD is the largest water wholesaler for supplemental domestic and municipal water uses in California. As one of the twenty-six member agencies of MWD, the City, through LADWP, purchases water from MWD to supplement its water supplies from the LAA, local groundwater, and recycled water. Between FYE 2017 to FYE 2021, LADWP purchased an average of 201,211 AFY from MWD or approximately 40 percent of the City's total water supply.

MWD imports water from two principal sources: northern California via the California Aqueduct and the Colorado River via the Colorado River Aqueduct (CRA). MWD also manages and owns in-basin surface storage facilities, stores groundwater within the basin via contracts, engages in groundwater storage outside the basin, and conducts water transfers to provide additional supplies for its member agencies. All member agencies have preferential rights to purchase water from MWD, pursuant to Section 135 of MWD Act. As of FYE 2021, LADWP has a preferential right to purchase 17.93 percent of MWD's total water supply.

MWD is a contractor for water from Northern California through the State Water Project's (SWP) California Aqueduct. MWD holds a contract for 1.912 million acre-feet (MAF) per year, or 46 percent of the total contracted amount of the 4.173 MAF ultimate delivery capacity of the SWP. However, this amount varies annually due to many factors. DWR annually approves the amount of contract allocations SWP receives, which is shown in DWR's "Table A."

MWD owns and operates the CRA. Since 1942, the CRA has delivered water from the Colorado River to Southern California. The Colorado River supplies come from watersheds of the Upper Colorado River Basin in the states of Colorado, Utah, and Wyoming. Under a permanent service contract with the U.S. Secretary of the Interior, MWD is entitled to receive water from the Colorado River and its tributaries. California is apportioned 4.4 MAF, annually, plus one-half of any surplus that may be available for use, collectively, in Arizona, California, and Nevada. Of the California apportionment, MWD holds the fourth priority right to 550,000 AFY under the 1931 priority system governing allotments to California. Beyond the basic apportionment, MWD holds a fifth priority right to 662,000 AF of water. See Appendix F for more details.

MWD has been developing plans and making efforts to provide additional water supply reliability for the entire Southern California region. LADWP coordinates closely with MWD to ensure implementation of these water resource development plans. MWD's actions have been focused on the following: continuing water conservation, developing water supply management programs outside of the region, developing storage programs related to the SWP and the Colorado River, developing storage and groundwater management programs within the Southern California region, increasing water recycling, groundwater recovery, stormwater, and seawater desalination and pursuing long-term solutions for the ecosystem, regulatory and water supply issues in the California Bay-Delta.

MWD's water reliability assessments are presented in MWD's 2020 UWMP, which can be found at the following link: http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents

7.0 Summary of Water Demand and Supply Projections for 20 years

LADWP's 2020 UWMP projects yearly water demand to reach 710,500 AF by FYE 2045 with existing water conservation prior to FYE 2014 already subtracted from projected demands, and with new water conservation savings achieved included as a supply source. Demographic data from 2020 SCAG Regional Transportation Plan for LADWP's service area, as well as billing data for each major customer class, price of water, median household income, household size, economy, and dry period conservation effect were factors used in forecasting future water demand growth. Further details on LADWP's water demand forecast methodology can be found in Chapter 2 "Water Demand" of LADWP's 2020 UWMP. Table V tabulates the service reliability assessment for average weather year.

Table V

Service Area Reliability Assessment for Average Weather Year

Demand and Supply Projections (in acre-feet)	**Average Year Fiscal Year Ending (FYE) on June 30**				
	2025	**2030**	**2035**	**2040**	**2045**
Total Water Demand[1]	**642,600**	**660,200**	**678,800**	**697,800**	**710,500**
Post-Conservation Demand	**509,500**	**526,700**	**536,100**	**554,500**	**565,800**
Existing / Planned Supplies					
Conservation (Additional Active[2] and Passive[3] after FYE 14)	133,100	133,500	142,700	143,300	144,700
Los Angeles Aqueduct[4]	190,400	188,900	187,300	185,800	184,200
Groundwater					
- Entitlements[5]	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	461,200	480,000	495,100	493,700	493,700
MWD Water Purchases					
With Existing/Planned Supplies	181,400	180,200	183,700	204,100	216,800
Total Supplies	**642,600**	**660,200**	**678,800**	**697,800**	**710,500**

[1] Total Demand with existing passive conservation prior to FYE 14

[2] Cumulative hardware savings since late 1980s reached 110,822 AFY by FYE 14

[3] Additional non-hardware conservation inclusive of retained passive savings from the dry period ending in 2017

[4] Los Angeles Aqueduct supply is estimated to decrease 0.1652 percent per year due to climate impacts.

[5] LADWP Groundwater Remediation projects in the San Fernando Basin are expected to be in operation by FYE 2023. Sylmar Basin production will increase to 4,170 AFY from FYE 2021 to 2036 to avoid the expiration of stored water credits, then revert to entitlement amounts of 3,570 AFY in 2037.

Service area reliability assessments for single-dry year and multiple-dry year conditions are shown in LADWP 2020 UWMP Exhibits 11F through 11G. Demands are met by the available supplies under all scenarios.

Water System Financing Program

Capital costs to finance facilities for the delivery of water supply to LADWP's service area are supported through customer-billed water rates. The Board sets rates subject to approval of City Council by ordinance. The Board is obligated by City Charter to establish water rates and collect charges in an amount sufficient to service the water system indebtedness and to meet its expenses for operation and maintenance.

The current water rates and its structures provide for modest rate increases each year over a five-year period for infrastructure improvements, meeting regulatory water quality requirements, and expanding the local water supply, which includes recycled water, stormwater capture, conservation, water efficiency, and groundwater remediation. LADWP's water rates incorporate and further reinforce foundational water conservation, water use efficiency, and financial principles. For example, the current water rate structure contains four tiers for single-family residential customers. The four tiers build on the previous two tier structure, providing a first-tier indoor water use base allocation, a second-tier allocation based on California Friendly Landscaping efficient outdoor use, a third-tier allocation capturing high outdoor water use, and a fourth-tier allocation for excessive use. In keeping with cost of service principles, the incremental pricing for the tiers is based on the cost of water supply.

In addition, LADWP will utilize a combination of the following funding sources:

- MWD – Currently provides funding through their Local Resources Program for the development of water recycling, groundwater recovery and seawater desalination.

- Grants and loans – LADWP continues to proactively seek government funding to offset potential impacts to ratepayers. Local funds, such as Measure W's "Safe, Clean Water Program," provide funding for stormwater capture projects. State funds, such as Propositions 1, 50, and 84, provide funding for recycling, groundwater, conservation and stormwater capture projects. And Federal funds, such as the Water Resource Development Act and the US Bureau of Reclamation's Title XVI program, provide funding for water recycling projects.

Conclusion

The Project is estimated to increase the total water demand within the site by 90 AF annually. This additional water demand for the Project site has been accounted for in the City's overall total demand projections in the LADWP's 2020 UWMP using a service area-wide approach that does not rely on individual development demand. The LADWP's 2020 UWMP utilized SCAG's 2020 RTP/SCS data that provide for more reliable water demand forecasts, considering changes in population, housing units, and employment.

Based on the Planning Department's determination that the Project is consistent with the demographic forecasts for the City from the SCAG's 2020 RTP/SCS, LADWP has determined that the Project's water demand is included in the LADWP's 2020 UWMP, which forecasts adequate water supplies to meet all projected water demands in the City through the year 2045. LADWP concludes that the projected 90 AFY increase in the total water demand for this Project is accounted for in the LADWP's 2020 UWMP 25-year water demand projections. LADWP has determined that it will be able to meet the proposed water demand of the Project as well as existing and planned future water demands of its service area.

Appendix A

City of Los Angeles Department of City Planning
Request for Water Supply Assessment,
and Project Scope Confirmation e-mail

DEPARTMENT OF
CITY PLANNING

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CITY PLANNING COMMISSION

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July 19, 2022

Los Angeles Department of Water and Power
Water Resources Division
Sabrina Tsui, Manager of Resources Development
111 North Hope Street, Room 314
Los Angeles, California 90012

RE: Request for Water Supply Assessment – Echelon Studios Project

Dear Mrs. Tsui:

California Senate Bill (SB) 610, effective January 1, 2002, states that a water supply assessment must be provided to local governments for inclusion in any environmental documentation for certain projects subject to the California Environmental Quality Act (CEQA). Specifically, SB 610 requires that for certain projects, the CEQA lead agency must identify any public water system that may supply water to the proposed project and request the public water system to determine the water demand associated with the project and whether such demand was included as part of the most recently adopted Urban Water Management Plan (UWMP). Per Section 10912 of the California Water Code (CWC), a project which is subject to the requirements of SB 610 includes, but is not limited to: (1) residential developments of more than 500 dwelling units; (2) a shopping center or business establishment that will employ more than 1,000 persons or have more than 500,000 square feet of floor space; (3) a commercial office building that will employ more than 1,000 persons or have more than 250,000 square feet of floor space; (4) hotels, motels, or both, having more than 500 rooms; (5) industrial, manufacturing, or processing plant, or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons; (6) mixed-use projects that include one or more of the above-identified categories; or (7) a project that would demand an amount of water equal to or greater than the amount of water needed to serve a 500-dwelling unit project.

The Echelon Studios Project (hereafter referred to as the Project) meets criteria (3) and (7) above as it would develop a commercial building with a total floor area of 551,258 square feet consisting of 112,810 square feet of film and television production studios, 426,061 square feet of creative office space, 12,378 square feet of retail/restaurant space, and accessory related uses.

The Los Angeles Department of Water and Power (LADWP) has been identified as the public water system (as defined in CWC Section 10912 and CEQA Guidelines Section 15083.5(e)) that would serve the Project. Accordingly, the Department of City Planning (CEQA lead agency for the Project) requests that the LADWP: (1) determine whether the estimated water demand associated with the Project was included as part of LADWP's most recently adopted UWMP; and (2) prepare and approve a water supply assessment using the UWMP or new analyses for the Project pursuant to CWC Section 10910 et seq.

The requirements for a water supply assessment include the identification of existing water supply entitlements, water rights, or water service contracts held by LADWP's public water system, and prior years' water deliveries received by LADWP's public water system. Please refer to CWC Section 10910 (d)(2) for the documentation required to verify any identified rights to a water supply. If the LADWP has not received water in prior years as described in CWC Section 10910 (e) or if groundwater is a source of supply as described in CWC Section 10910 (f), please comply with the requirements of those sections.

The Department of City Planning, which is preparing an EIR in accordance with CEQA, requests that the water supply assessment include a discussion of whether LADWP's public water system's total projected water supplies available during normal, single dry, and multiple dry water years will meet the projected water demand associated with the Project, in addition to LADWP's public water system's existing and planned future uses, including agricultural and manufacturing uses, pursuant to CWC Section 10910 (c)(3). A full description of the Project is provided below.

Project Title
Echelon Studios Project

Project Developer
Santa Monica Boulevard Owner, LLC
1015 N. Fairfax Avenue
West Hollywood, CA 90046

Contact Information
Department of City Planning
James Harris
(213) 978-1241
James.Harris@lacity.org

EIR Consultant
EcoTierra Consulting
Jenny Mailhot
424.207.5339
Jenny@ecotierraconsulting.com

Project Location
The Project Site is comprised of lots located at: 5601-5673 W. Santa Monica Boulevard, 5612-5672 W. Virginia Avenue, and 1110-1118 N. Wilton Place. The Project Site is located within the Hollywood Community Plan area of the City. The Project Site is approximately 5.14 acres.

Existing Uses
The Project Site is currently improved with a 98,532 square foot commercial building and surface parking. The existing four-story building on the Project Site was originally constructed in 1928 and was used as a Sears retail store. The building has been vacant for the past decade.

Project Description
The Project includes the construction of a single interconnected building up to six-stories, 94 feet in height. The 551,258 square foot commercial development consists of film and television production studios (112,810 square feet), creative offices (426,061 square feet), retail/restaurant spaces (12,378 square feet), and accessory related uses with onsite parking, with a proposed floor area ratio of 2.44:1.

The Project is designed with two (2) six-story office towers fronting Wilton Place along the west property line and St. Andrews Place along the east property line. The two (2) office towers would be approximately 94 feet in height. Four (4) soundstages and a flex stage are proposed between the two (2) office towers fronting Santa Monica Boulevard. The sound stages would have a maximum height of approximately 63 feet, and the flex stage located in the middle of soundstages would have a height of approximately 37 feet. Office bungalows are proposed on the third and fourth floors along Virginia Avenue with maximum heights of approximately 63 feet.

The Project would provide 1,112 vehicle parking spaces in a three-level subterranean parking garage with access from Wilton Place and St Andrews Place, a ground level soundstage parking and loading area accessed from Virginia Avenue at the rear, and 156 long term and short term bicycle parking spaces. The primary pedestrian access would be to the main lobby at the northeast corner of Santa Monica Boulevard and Wilton Place with a secondary pedestrian access available along St Andrews Place.

The Project also proposes outdoor landscaped terraces on the third floor and private balconies on the fourth through the sixth floors. Restaurant/retail space is proposed along Santa Monica Boulevard with ground floor pedestrian access and on-site outdoor seating areas. An additional parklet with a green wall backdrop is proposed near the center of the block along Santa Monica Boulevard. The Project is providing approximately 26,004 square feet of landscaped area.

Existing Water Consumption

As discussed above, the Project Site is currently developed 98,532 square foot vacant commercial building and surface parking. As shown in Table 1 below, the Project Site currently generates a water demand of approximately 24,588 gallons per day.

Table 1
Existing Water Consumption

Land Use	Floor Area (sf)	Water Demand Rate[a]	Demand (gpd)
Retail/Office	98,352 sf	25/1,000 gpd/sf	24,588
Total			**24,588**

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*
Source: EcoTierra Consulting, Inc., 2022.

Forecast of Project Water Demand

Table 2 provides the estimated water demand forecast for the Project using the City's Bureau of Sanitation standard factors for wastewater generation. As shown in Table 2, the Project is estimated to result in a domestic water demand of approximately 71,151 gallons per day, which represents an increase of approximately **46,563** gallons per day compared to existing conditions.

Table 2
Proposed Water Consumption

Land Use	Proposed Development	Water Demand Rate[a]	Demand (gpd)
Office	388,286 sf	120/1,000 gpd/sf	46,594
Commercial/Retail	12,378 sf	25/1,000 gpd/sf	309
Restaurant[b]	625 seats	30 seat	18,750
Production Studio	109,957	50 /1,000 gpd/sf	5,498
Total			71,151
Net New Water Demand (Proposed minus Existing)			**46,563**

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*
[b] *Conservatively assumes 1 seat per 30 square feet of restaurant space for a full service restaurant.*
Source: EcoTierra Consulting, Inc., 2022.

Project Conformance with Existing Zoning and General Plan

The Project would conform to the uses permitted by the Hollywood Community Plan. The Project Site has a Neighborhood Office Commercial General Plan land use designation and is zoned R4-1VL and C4-1VL (Multiple Dwelling Zone and Commercial Zone respectively), and Height District 1VL. The R4 and C4 zones allow for a wide variety of land uses, including retail stores, theaters, hotels, broadcasting studios, parking buildings, parks, and playgrounds

Pursuant to LAMC 12.32, the project is requesting a Zone Change and Height District change for the Project Site to C4-2D (Commercial Zone and Height District 2 with a D limitation). The proposed zone change would allow for commercial uses including production studios, offices, restaurants and retail.

The Project would also be consistent with the Water Efficiency Requirements Ordinance—City Ordinance No. 180822 (effective Dec. 1, 2009), Los Angeles Green Building Code Ordinance—City Ordinance No. 181480 (effective Dec. 14, 2010), and the 2019 California Green Building Standard Code.

Landscaping

The Project would include several open space areas consisting of private landscaped outdoor balconies and terraces on the various upper levels, as well as landscaped ground level areas. The Project would provide approximately 26,004 square feet of landscaped areas.

Environmental Design Features

The Project would be designed and constructed to incorporate environmentally sustainable building features equivalent to a Gold certification under the U.S. Green Building Council's LEED® Rating System for new construction, and environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen. The Project would also incorporate water conservation features through low-water use plant selections and ultra-low flow indoor water fixtures.

Thank you for your assistance with this request. Your expert evaluation will help to ensure that our analysis of the Project's impacts on water demand is accurate and complete. CWC Section 10910 (g)(1) requires submission of the assessment within 90 days of this request. We would appreciate the receipt of the water assessment within that timeframe. If you have any questions or comments, please contact James Harris at (213) 978-1241 or James.Harris@lacity.org.

Sincerely,

VINCENT P. BERTONI, AICP
Director of Planning

James Harris

James Harris, City Planner
Department of City Planning
Major Projects

From: James Harris
To: Kim, Theresa
Subject: [EXTERNAL] Re: Echelon Studios Project - Confirmation of Project"s Scope of Work for the Water Supply Assessment
Date: Tuesday, October 4, 2022 7:05:14 AM

Good morning Theresa

The applicant team has reviewed the Echelon Studios Detail and Scope including Table and the text. They have no changes. The Project Detail and Scope has been confirmed by the team.

Thank you
Jim

Jim Harris
Major Projects
Los Angeles City Planning
221 N. Figueroa St., Room 1350
Los Angeles, CA 90012
T: (213) 978-1241 | Planning4LA.org

On Wed, Sep 28, 2022 at 2:13 PM Kim, Theresa <Theresa.Kim@ladwp.com> wrote:

> Hi Jim,
>
> I am in the process of completing the Water Supply Assessment (WSA) Board Package for the Echelon Studios Project within the City of Los Angeles (Project). The Los Angeles Department of Water and Power (LADWP) requests that the City of Los Angeles Department of City Planning (Planning Department) confirm, by e-mail, the correct detailed scope (shown below) for the Project. This project scope confirming e-mail will be included as part of the WSA, and the confirmed project's scope of work will be used for calculating the water demand in the WSA.
>
> LADWP received the WSA Request Letter for the proposed Project on July 26, 2022. The project's scope considered in LADWP's water demand calculations, as received in the WSA Request Letter and from the Applicant team, is as follows:
>
> **Existing uses to be Demolished:**

Existing to be Removed and Remodeled	Floor Area (SF)
Retail and Commercial Space	98,352 sf

Proposed:

Occupancies	Floor Area (SF)
Commercial	
Office	388,286
Production Office	6,619
Restaurant (Indoor)	8,172 (545 seats)
Restaurant (Outdoor)	4,206 (280 seats)
Sound Stage	77,756
Flex Stage	14,113
Mill	11,468
Basecamp	53,505
Landscaping and Pools	
Landscaping	19,701
Water Feature	50 SF (Diameter = 8')
Covered Parking	489,092
Cooling Tower	250 tons for 10 to 12 hours/day on Monday-Friday

Proposed areas and use that do not have a water demand are not shown in this table.

The Project does not require a General Plan Amendment to conform to the uses and intensity of development permitted by the City of Los Angeles' General Plan.

The Project is consistent with the demographic projections in the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments for the City of Los Angeles.

If the above listed project's scope of work is accurate and consistent with the proposed Project, please reply to this e-mail to confirm the Project's scope of work. If not, please edit the project's scope accordingly and send back to me by e-mail.

Theresa Vu Kim

Los Angeles Department of Water and Power

111 N. Hope Street, Room 314

Los Angeles, CA 90012

O: (213) 367-1491

Appendix B

Water Conservation Commitment Letter

BARDAS INVESTMENT GROUP | **BUILDING CREATIVITY**

September 29, 2022

Anselmo G. Collins
Senior Assistant General Manager for Water System
Los Angeles Department of Water & Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012-5701

Re: WATER CONSERVATION COMMITMENTS FOR THE ECHELON STUDIOS PROJECT

Dear Mr. Collins:

Santa Monica Boulevard Owner, LLC (Applicant), proposes to develop the Echelon Studios Project (Project) within the Hollywood Community Plan Area of the City of Los Angeles, located at 5601 - 5673 W. Santa Monica Boulevard, 5612 - 5672 W. Virginia Avenue, and 1110 - 1118 N. Wilton Place (Project Site). The Project Site, which encompasses approximately 5.17 acres, is generally bounded by Virginia Avenue to the north, Saint Andrews Place to the east, Santa Monica Boulevard to the south, and North Wilton Place to the west. The Project would develop approximately 12,378 square feet of restaurant uses, 388,286 square feet of office uses, 109,957 square feet of studio production uses, approximately 53,505 square feet of basecamp, approximately 489,092 square feet of covered below grade parking, and 19,701 square feet of landscaping. The Project would also include one 250-Ton Cooling Tower for the Bungalow Offices. As part of the Project, the existing development that collectively comprise approximately 98,352 square feet of floor area on-site would be removed.

The Applicant understands the City of Los Angeles' plans to meet future water needs by expanding local water supply programs and reducing demands on purchased imported water through local groundwater, recycled water, stormwater capture, and water conservation and use efficiency. Therefore, the Applicant has committed to implement the following water conservation measures that are in addition to those required by codes and ordinances for the entire Project to reduce the Project's baseline water demand:

- Fixtures
  - Showerheads with a flow rate of 1.75 gallons per minute.

- Landscape and Irrigation
  - Rotating sprinkler nozzles for landscape irrigation (0.5 to 1.0 gallons per minute).

The Applicant has also committed to comply with the City of Los Angeles Low Impact Development Ordinances (City Ordinance No. 181899 and No. 183833) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire Project as applicable:

- Cistern - captures stormwater runoff as it comes down through the roof gutter system.

Should you have any questions, please do not hesitate to call at (415) 254-2711.

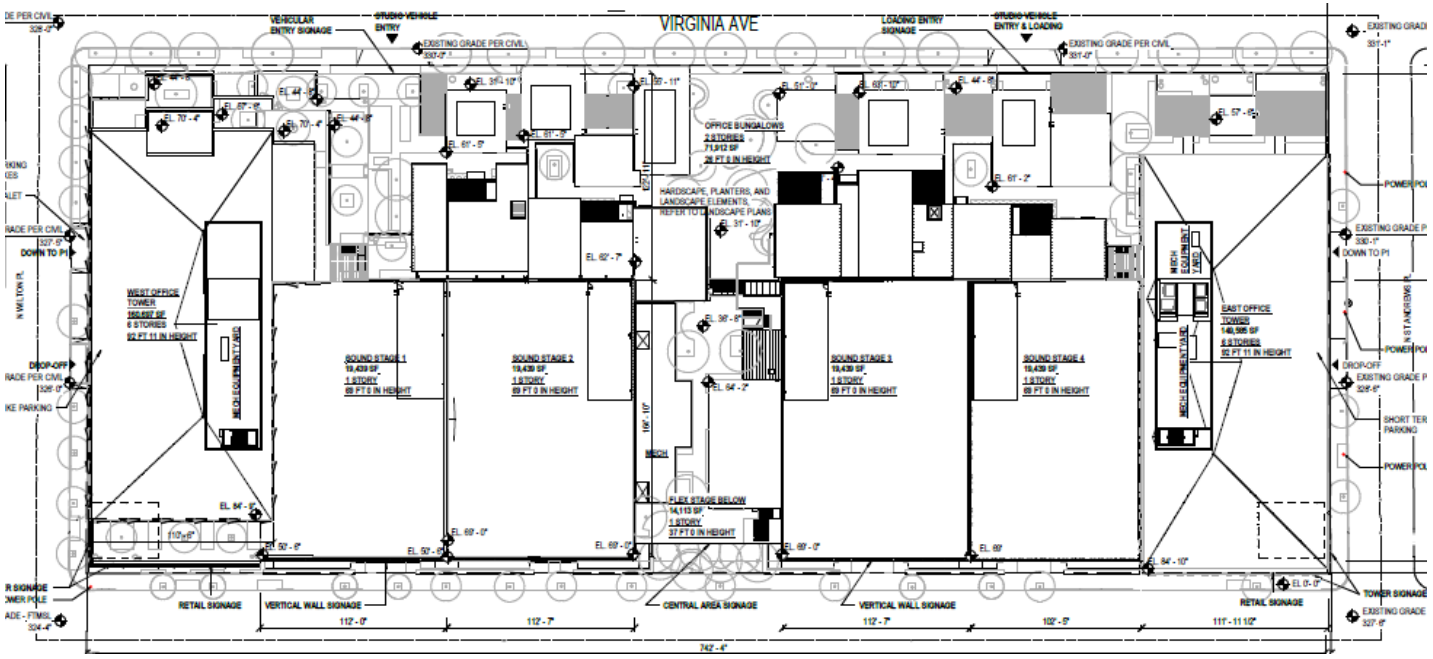
Sincerely,

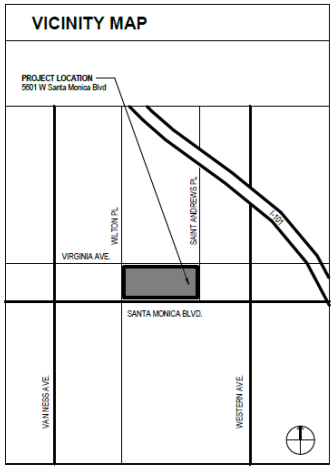
David Simon (Sep 29, 2022 13:49 PDT)

David Simon, Founder and Managing Principal
Santa Monica Boulevard Owner, LLC
BARDAS Investment Group

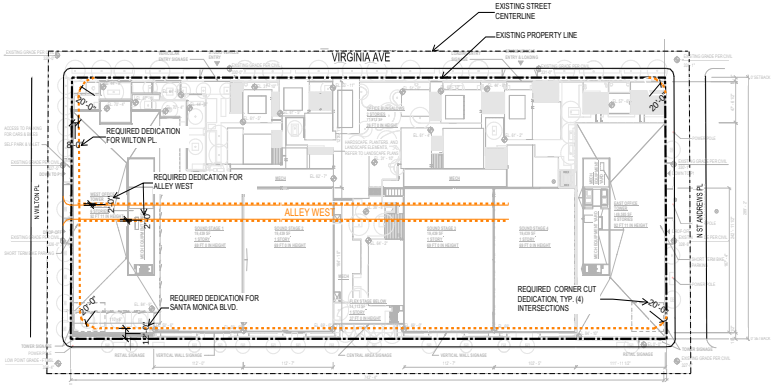
Appendix C

Project Location Maps



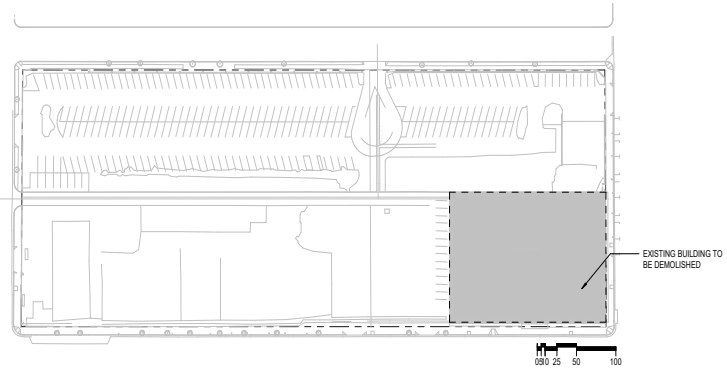


Echelon Studios
Project Site Plan

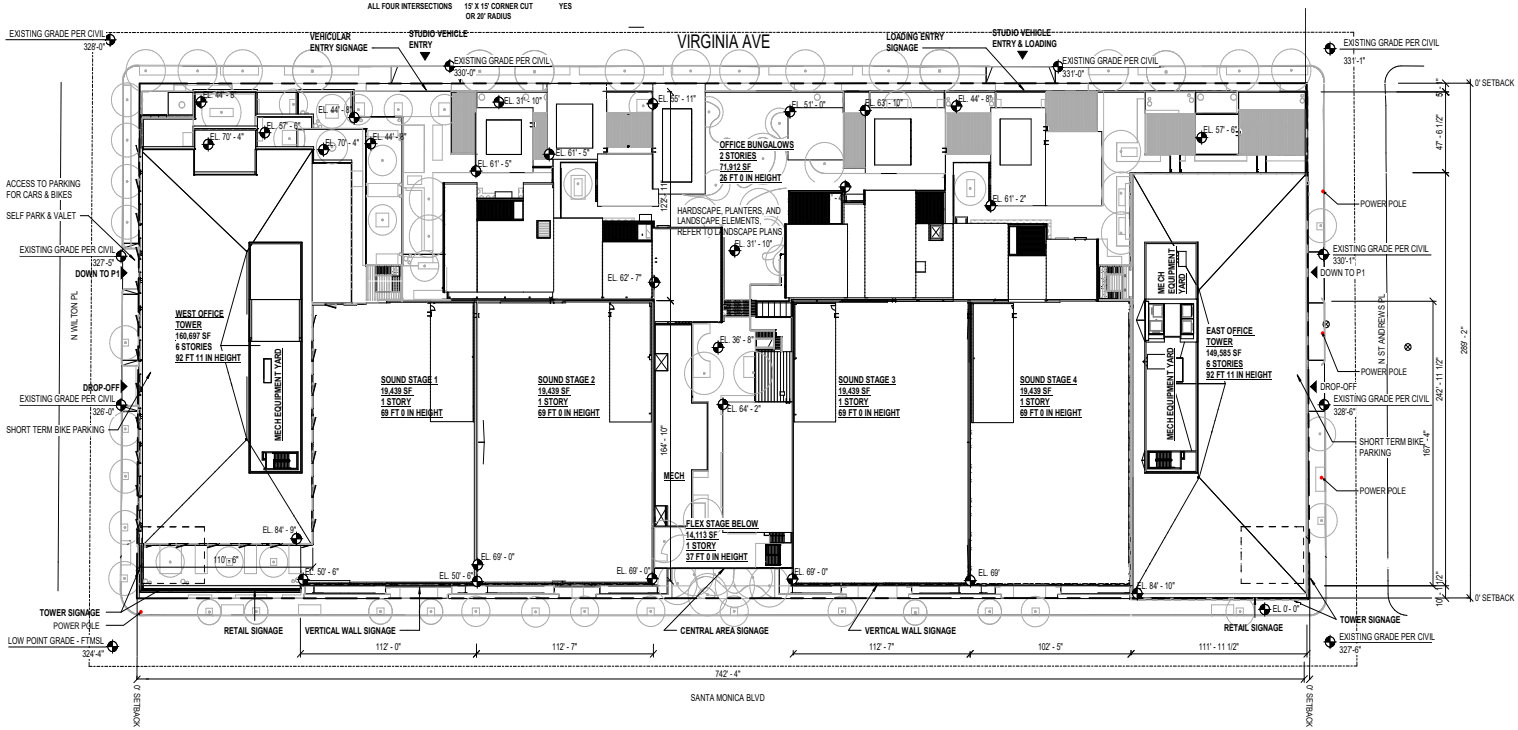


DEDICATIONS PLAN PER BOE PCRF 202100142 (3)

STREET DEDICATIO	REQUIRED	REQUEST FOR WAIVER
WILTON PLACE	8' DEDICATION, 5' WIDENING	YES
SANTA MONICA BLVD.	12' DEDICATION, 7' WIDENING	YES
ALLEY WEST	2' DEDICATION, 2' WIDENING	YES
ALL FOUR INTERSECTIONS	15' X 15' CORNER CUT OR 20' RADIUS	YES



DEMO PLAN (1)
1/64" = 1'-0"



PLOT PLAN / ROOF PLAN / SITE PLAN (2)
1/32" = 1'-0"

RIOS

3101 W EXPOSITION PLACE
LOS ANGELES, CA 90018
PH: 323.785.1800
FAX: 323.785.1801
rios.com

PROJECT NO: 20283

CONSULTANT

NOT FOR CONSTRUCTION

ECHELON STUDIO
ECHELON STUDIOS
5601 W. Santa Monica Blvd.
Los Angeles, CA 90038

REVISIONS
1 09.01.21 REVISED SUBMITTAL
2 02.09.22 REVISED SUBMITTAL
3 07.01.22 REVISED SUBMITTAL

ISSUED
05.01.21 ENTITLEMENT SUBMITTAL
09.01.21 REVISED SUBMITTAL
02.09.22 REVISED SUBMITTAL
07.01.22 REVISED SUBMITTAL

FILENAME: [TYPE FILE NAME]

DRAWING TITLE: PLOT PLAN 01

DATE: 07.01.22

SCALE: As indicated (WHEN PRINTED ON ATTACH SHEET)

DRAWING NO: **A1.01**

Appendix D

Adjudicated Groundwater Basin Judgments

- San Fernando Basin – Judgment No. 650079
- Sylmar Basin – Judgment No. 650079
- Central Basin – Judgment No, 786656

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, Plaintiff, vs. CITY OF SAN FERNANDO, ET AL. Defendants.	No. 650079 JUDGMENT

There follows by consecutive paging Recitals (page 1), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 22), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

4.2.3 Separate Ground Water Basins. The physical and geologic characteristics of each of the ground water basins, Eagle rock, Sylmar, Verdugo and San Fernando, cause impediments to inter-basin ground water flow whereby there is created separate underground reservoirs. Each of said basins contains a common source of water supply to parties extracting ground water from each of said basins. The amount of underflow from Sylmar Basin, Verdugo Basin and Eagle Rock Basin to San Fernando Basin is relatively small, and on the average has been approximately 540 acre feet per year from the Sylmar Basin; 80 acre feet per year from Verdugo Basin; and 50 acre feet per year from Eagle Rock Basin. Each has physiographic, geologic and hydrologic differences, one from the other, and each meets the hydrologic definition of "basin". The extractions of water in the respective basins affect the other water users within that basin but do not significantly or materially affect the ground water levels in any of the other basins. The underground reservoirs of Eagle Rock, Verdugo and Sylmar Basins are independent of one another and of the San Fernando Basin.

4.2.4 Safe Yield and Native Safe Yield. The safe yield and native safe yield, stated in acre feet, of the three largest basins for the year 1964-65 was as follows:

Basin	Safe Yield	Native Safe Yield
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles. There is no measurable native safe yield.

4.2.5 Separate Basins -- Separate Rights. The rights of the parties to extract ground water within ULARA are separate and distinct as within each of the several ground water basins within said watershed.

4.2.6 Hydrologic Condition of Basins. The several basins within ULARA are in varying hydrologic conditions, which result in different legal consequences.

4.2.6.1 San Fernando Basin. The first full year of overdraft in San Fernando Basin was 1954-55. It remained in overdraft continuously until 1968, when an injunction

LAGERLOF, SENICAL, DRESCHER & SWIFT
301 North Lake Avenue, 10th Floor
Pasadena, California 91101
(818) 793-9400 or (213) 385-4345

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT, etc., Plaintiff, v. CHARLES E. ADAMS, et al., Defendants. CITY OF LAKEWOOD, a municipal corporation, Cross-Complaint, v. CHARLES E. ADAMS, et al., Cross-Defendants.	No. 786,656 SECOND AMENDED JUDGMENT (Declaring and establishing water rights in Central Basin and enjoining extractions therefrom in excess of specified quantities.)

The above-entitled matter duly and regularly came on for trial in Department 73 of the above-entitled Court (having been transferred thereto from Department 75 by order of the presiding Judge), before the Honorable Edmund M. Moor, specially assigned Judge, on May 17, 1965, at 10:00 a.m. Plaintiff was represented by its attorneys BEWLEY, KNOOP,

of the close of the water year ending September 30, 1978 in accordance with the Watermaster Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into account additions or subtractions from any Allowed Pumping Allocation of a producer for the 1978-79 water year, nor other adjustments not representing change in fee title to water rights, such as leases of water rights, nor does it include the names of lessees of landowners where the lessees are exercising the water rights. The exercise of all water rights is subject, however, to the provisions of this Judgment is hereinafter contained. All of said rights are of the same legal force and effect and are without priority with reference to each other. Each party whose name is hereinafter set forth in the tabulation set forth in Appendix "2" of this judgment, and after whose name there appears under the column "Total Water Right" the figure "0" owns no rights to extract any ground water from Central Basin, and has no right to extract any ground water from Central Basin.

(b) Defendant The City of Los Angeles is the owner of the right to extract fifteen thousand (15,000) acre feet per annum of ground water from Central Basin. Defendant Department of Water and Power of the City of Los Angeles has no right to extract ground water from Central Basin except insofar as it has the right, power, duty or obligation on behalf of defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The City of Los Angeles. The exercise of said rights are subject, however, to the provisions of this judgment hereafter contained, including but not limited to, sharing with other parties in any subsequent decreases or increases in the quantity of extractions permitted from Central Basin, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet bears to the Allowed Pumping Allocations of the other parties.

(c) No party to this action is the owner of or has any right to extract ground water from Central Basin except as herein affirmatively determined.

2. Parties Enjoined as Regards Quantities of Extractions.

Appendix E

Water Supply Assessment Provisions
California Water Code Section 10910-10915

State of California

WATER CODE

Section 10910

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system whose service area includes the project site and any water system adjacent to the project site that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contractholders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied.

(B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city

or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree.

(C) For a basin that has not been adjudicated that is a basin designated as high- or medium-priority pursuant to Section 10722.4, information regarding the following:

(i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924.

(ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.

(D) For a basin that has not been adjudicated that is a basin designated as low- or very low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water

system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared.

(i) For the purposes of this section, hauled water is not considered as a source of water.

(Amended by Stats. 2016, Ch. 594, Sec. 2. (SB 1262) Effective January 1, 2017.)

State of California

WATER CODE

Section 10911

10911. (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. If the city or county, if either is required to comply with this part pursuant to subdivision (b), concludes as a result of its assessment, that water supplies are, or will be, insufficient, the city or county shall include in its water supply assessment its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. Those plans may include, but are not limited to, information concerning all of the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, state, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2), the estimated timeframes within which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), expects to be able to acquire additional water supplies.

(b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) The city or county may include in any environmental document an evaluation of any information included in that environmental document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

(Amended by Stats. 2001, Ch. 643, Sec. 5. Effective January 1, 2002.)

State of California

WATER CODE

Section 10912

10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections. A public water system includes all of the following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system that is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(d) This section shall become operative on January 1, 2018.

(Amended (as added by Stats. 2011, Ch. 588, Sec. 2) by Stats. 2016, Ch. 669, Sec. 2. (AB 2561) Effective September 26, 2016. Section operative January 1, 2018, by its own provisions.)

State of California

WATER CODE

Section 10914

10914. (a) Nothing in this part is intended to create a right or entitlement to water service or any specific level of water service.

(b) Nothing in this part is intended to either impose, expand, or limit any duty concerning the obligation of a public water system to provide certain service to its existing customers or to any future potential customers.

(c) Nothing in this part is intended to modify or otherwise change existing law with respect to projects which are not subject to this part.

(d) This part applies only to a project for which a notice of preparation is submitted on or after January 1, 1996.

(Added by Stats. 1995, Ch. 881, Sec. 4. Effective January 1, 1996.)

State of California

WATER CODE

Section 10915

10915. The County of San Diego is deemed to comply with this part if the Office of Planning and Research determines that all of the following conditions have been met:

(a) Proposition C, as approved by the voters of the County of San Diego in November 1988, requires the development of a regional growth management plan and directs the establishment of a regional planning and growth management review board.

(b) The County of San Diego and the cities in the county, by agreement, designate the San Diego Association of Governments as that review board.

(c) A regional growth management strategy that provides for a comprehensive regional strategy and a coordinated economic development and growth management program has been developed pursuant to Proposition C.

(d) The regional growth management strategy includes a water element to coordinate planning for water that is consistent with the requirements of this part.

(e) The San Diego County Water Authority, by agreement with the San Diego Association of Governments in its capacity as the review board, uses the association's most recent regional growth forecasts for planning purposes and to implement the water element of the strategy.

(f) The procedures established by the review board for the development and approval of the regional growth management strategy, including the water element and any certification process established to ensure that a project is consistent with that element, comply with the requirements of this part.

(g) The environmental documents for a project located in the County of San Diego include information that accomplishes the same purposes as a water supply assessment that is prepared pursuant to Section 10910.

(Amended by Stats. 2001, Ch. 643, Sec. 8. Effective January 1, 2002.)

Appendix F

Metropolitan Water District of Southern California

(APPENDIX A)

APPENDIX A

The Metropolitan Water District of Southern California

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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

INTRODUCTION

This Appendix A provides general information regarding The Metropolitan Water District of Southern California ("Metropolitan"), including information regarding Metropolitan's operations and finances. Certain statements included or incorporated by reference in this Appendix A constitute "forward-looking statements." Such statements are generally identifiable by the terminology used such as "plan," "project," "expect," "estimate," "budget" or other similar words. Such statements are based on facts and assumptions set forth in Metropolitan's current planning documents including, without limitation, its most recent biennial budget. The achievement of results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Actual results may differ from Metropolitan's forecasts. Metropolitan is not obligated to issue any updates or revisions to the forward-looking statements in any event.

Metropolitan maintains a website that may include information on programs or projects described in this Appendix A; however, none of the information on Metropolitan's website is incorporated by reference or intended to assist investors in making an investment decision or to provide any additional information with respect to the information included in this Appendix A. The information presented on Metropolitan's website is not part of the Official Statement and should not be relied upon in making investment decisions.

Formation and Purpose

Metropolitan is a metropolitan water district created in 1928 under the authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended (herein referred to as the "Act")). The Act authorizes Metropolitan to: levy property taxes within its service area; establish water rates; impose charges for water standby and service availability; incur general obligation bonded indebtedness and issue revenue bonds, notes and short-term revenue certificates; execute contracts; and exercise the power of eminent domain for the purpose of acquiring property. In addition, Metropolitan's Board of Directors (the "Board") is authorized to establish terms and conditions under which additional areas may be annexed to Metropolitan's service area.

Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member agencies. If additional water is available, such water may be sold for other beneficial uses. As a water wholesaler, Metropolitan has no retail customers.

The mission of Metropolitan, as promulgated by the Board, is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan's rates and charges for water transactions and availability are set by its Board and are not subject to regulation or approval by the California Public Utilities Commission or any other state or federal agency. Metropolitan imports water from two principal sources: northern California via the Edmund G. Brown California Aqueduct (the "California Aqueduct") of the State Water Project owned by the State of California (the "State" or "California") and the Colorado River via the Colorado River Aqueduct ("CRA") owned by Metropolitan.

Member Agencies

Metropolitan is comprised of 26 member agencies, all of which are public entities, including 14 cities, 11 municipal water districts, and one county water authority, which collectively serve the residents and businesses of more than 300 cities and numerous unincorporated communities. Member agencies request water from Metropolitan at various delivery points within Metropolitan's system and pay for such water at uniform rates established by the Board for each class of water service. Metropolitan's water is a supplemental supply

for its member agencies, most of whom have local supplies and other sources of water. See "METROPOLITAN REVENUES–Principal Customers" in this Appendix A for a listing of the ten member agencies representing the highest level of water transactions and revenues of Metropolitan during the fiscal year ended June 30, 2021. No member is required to purchase water from Metropolitan, but all member agencies are required to pay readiness-to-serve charges whether or not they purchase water from Metropolitan. See "METROPOLITAN REVENUES–Rate Structure," "–Member Agency Purchase Orders" and "–Other Charges" in this Appendix A. Local supplies include water produced by local agencies from various sources including but not limited to groundwater, surface water, locally-owned imported supplies, recycled water, and seawater desalination (see "REGIONAL WATER RESOURCES" in this Appendix A). Metropolitan's member agencies may develop additional sources of water and Metropolitan provides support for several programs to develop these local resources. See also "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

The following table lists the 26 member agencies of Metropolitan.

Municipal Water Districts		Cities		County Water Authority
Calleguas	Las Virgenes	Anaheim	Los Angeles	San Diego[1]
Central Basin	Orange County	Beverly Hills	Pasadena	
Eastern	Three Valleys	Burbank	San Fernando	
Foothill	West Basin	Compton	San Marino	
Inland Empire Utilities Agency		Fullerton	Santa Ana	
Upper San Gabriel Valley		Glendale	Santa Monica	
Western of Riverside County		Long Beach	Torrance	

[1] The San Diego County Water Authority, currently Metropolitan's largest customer based on water transactions, is a plaintiff in litigation challenging certain rates adopted by the Board and asserting other claims. See "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A.

Service Area

Metropolitan's service area comprises approximately 5,200 square miles and includes all or portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. When Metropolitan began delivering water in 1941, its service area consisted of approximately 625 square miles. Its service area has increased by 4,575 square miles since that time. The expansion was primarily the result of annexation of the service areas of additional member agencies.

Metropolitan estimates that approximately 18.7 million people lived in Metropolitan's service area (as of July 2021), based on official estimates from the California Department of Finance and on population distribution estimates from the Southern California Association of Governments ("SCAG") and the San Diego Association of Governments ("SANDAG"). Recent population projections prepared by SCAG in 2020 and by SANDAG in 2019, which are being used as base data for Metropolitan's 2020 Integrated Water Resources Plan, show expected population growth of approximately 17 percent in Metropolitan's service area between 2010 and 2035, which is slightly lower than the approximately 18 percent population growth rate projected by SCAG in 2012 and SANDAG in 2013 (which projections were used as base data for Metropolitan's prior 2015 Integrated Water Resources Plan update). The economy of Metropolitan's service area is exceptionally diverse. In 2021, the economy of the six counties which contain Metropolitan's service area had a gross domestic product larger than all but eleven nations of the world. Metropolitan has historically provided between 40 and 60 percent of the water used annually within its service area. For additional economic and demographic information concerning the six county area containing Metropolitan's service area, see Appendix E–"SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN'S SERVICE AREA."

The climate in Metropolitan's service area ranges from moderate temperatures throughout the year in the coastal areas to hot and dry summers in the inland areas. Since 2000, annual rainfall has ranged from approximately 4 to 21 inches along the coastal area, 6 to 38 inches in foothill areas, and 5 to 22 inches in inland areas.

GOVERNANCE AND MANAGEMENT

Board of Directors

Metropolitan is governed by a 38-member Board of Directors, made up of representatives from all of Metropolitan's 26 member agencies. Each member agency is entitled to have at least one representative on the Board, plus an additional representative for each full five percent of the total assessed valuation of property in Metropolitan's service area that is within the member agency. Changes in relative assessed valuation do not terminate any director's term. In 2019, California Assembly Bill 1220 (Garcia) amended the Act to provide that "A member public agency shall not have fewer than the number of representatives the member public agency had as of January 1, 2019." Accordingly, the Board may, from time to time, have more than 38 directors.

The Board includes business, professional and civic leaders. Directors are appointed by member agencies in accordance with those agencies' processes and the Act. They serve on the Board without compensation from Metropolitan. Voting is based on assessed valuation, with each member agency being entitled to cast one vote for each $10 million or major fractional part of $10 million of assessed valuation of property within the member agency, as shown by the assessment records of the county in which the member agency is located. The Board administers its policies through the Metropolitan Water District Administrative Code (the "Administrative Code"), which was adopted by the Board in 1977. The Administrative Code is periodically amended to reflect new policies or changes to existing policies that occur from time to time.

Management

Metropolitan's day-to-day management is under the direction of its General Manager, who serves at the pleasure of the Board, as do Metropolitan's General Counsel, General Auditor and Ethics Officer. Following is a biographical summary of Metropolitan's principal executive officers.

Adel Hagekhalil, General Manager – Mr. Hagekhalil was appointed as General Manager in June 2021. Before joining Metropolitan, Mr. Hagekhalil was appointed in 2018 by Los Angeles Mayor Eric Garcetti to serve as the executive director and general manager of the City of Los Angeles' Bureau of Street Services. His responsibilities included oversight of the management, maintenance and improvement of the city's network of streets, sidewalks, trees and bikeways. Mr. Hagekhalil also focused on climate change adaptation and multi-benefit integrated active transportation corridors. Previously, he served nearly 10 years as assistant general manager of the Los Angeles' Bureau of Sanitation, overseeing the city's wastewater collection system, stormwater and watershed protection program, water quality compliance, advance planning and facilities. He also helped develop the city's 2040 One Water LA Plan, a regional watershed approach to integrate water supply, reuse, conservation, stormwater management and wastewater facilities planning. Mr. Hagekhalil is a member of the American Public Works Association as well as the Water Environment Federation, which recognized him in 2019 as a WEF Fellow for his contribution to enhancing and forwarding the water industry. He also served for more than a decade as a board member of the National Association of Clean Water Agencies, including a term as president. Mr. Hagekhalil is a registered civil engineer and national board-certified environmental engineer. He earned his bachelor's and master's degrees in civil engineering from the University of Houston, Texas.

Marcia Scully, General Counsel – Ms. Scully was appointed as Metropolitan's General Counsel in March 2012. She previously served as Metropolitan's Interim General Counsel from March 2011 to March 2012. Ms. Scully joined Metropolitan in 1995, after a decade of private law practice, providing legal

representation to Metropolitan on construction, employment, Colorado River and significant litigation matters. From 1981 to 1985 she was assistant city attorney for the City of Inglewood. Ms. Scully served as president of the University of Michigan's Alumnae Club of Los Angeles and is a recipient of the 1996 State Bar of California, District 7 President's Pro Bono Service Award and the Southern California Association of Non-Profit Housing Advocate of the Year Award. She is also a member of the League of Women Voters for Whittier and was appointed for two terms on the City of Whittier's Planning Commission, three years of which were served as chair. Ms. Scully earned a bachelor's degree in liberal arts from the University of Michigan, a master's degree in urban planning from Wayne State University and her law degree from Loyola Law School.

John L. Tonsick, Interim General Auditor – Mr. Tonsick was appointed as Interim General Auditor for Metropolitan in May 2022. Mr. Tonsick assumed the position of Interim General Auditor on June 1, 2022. As Interim General Auditor, his responsibilities include providing independent, objective assurance and consulting services to improve risk management, control and governance for Metropolitan. Mr. Tonsick was previously Metropolitan's Assistant General Auditor. Prior to joining Metropolitan in December 2015, he was the Forensic Audit Director at Broadcom, a Principal in the Financial Advisory Practice at PricewaterhouseCoopers, and served in various senior management roles at ARCO. Mr. Tonsick also provided forensic consulting services through Fraud Solutions, which he founded. Mr. Tonsick holds a Bachelor of Science degree in Business Administration from Robert Morris University in Pittsburgh, PA. He is a Certified Public Accountant and a Certified Fraud Examiner.

Abel Salinas, Ethics Officer – Mr. Salinas was appointed as Metropolitan's Ethics Officer in July 2019. He is responsible for making recommendations regarding rules and policies related to lobbying, conflicts of interest, contracts, campaign contributions and internal disclosures, while providing education and advice about these rules. Prior to joining Metropolitan, Mr. Salinas worked as the Special Agent in Charge in the U.S. Department of Labor's Office of Inspector General. Before joining that agency, he served for three years in the U.S. Office of Personnel Management. Mr. Salinas holds a bachelor's degree in criminal justice from University of Texas – Pan American and a master's degree in policy management from Georgetown University.

Deven Upadhyay, Executive Officer & Assistant General Manager, Water Resources – Mr. Upadhyay focuses primarily on key Metropolitan strategies and innovative planning efforts for the Colorado River and the State Water Project. He is responsible for managing the engineering services and water resource management groups, and the Colorado River and Bay Delta programs. Mr. Upadhyay was formerly Chief Operating Officer from November 2017. He has over 25 years of experience in the water industry. He joined Metropolitan in 1995, beginning as a Resource Specialist and then left Metropolitan in 2005 to work at the Municipal Water District of Orange County. In 2008, he returned to Metropolitan as a Budget and Financial Planning Section Manager and became a Water Resource Management Group Manager in 2010. Mr. Upadhyay has a Bachelor of Arts degree in economics from the California State University, Fullerton and a master's degree in public administration from the University of La Verne.

Katano Kasaine, Assistant General Manager, Finance & Administration – Ms. Kasaine is responsible for directing Metropolitan's financial activities, including accounting and financial reporting, debt issuance and management, financial planning and strategy, managing Metropolitan's investment portfolio, budget administration, financial analysis, financial systems management, and developing rates and charges. In addition, she is responsible for human resources, administrative services, Board Administration, risk management, and business continuity activities. Before joining Metropolitan in August 2019, Ms. Kasaine worked at the City of Oakland for 25 years, holding various leadership positions, notably as the city's Finance Director/Treasurer. She holds a bachelor's degree in business administration from Dominican University in San Rafael, California and a master's degree in public health from Loma Linda University.

Shane Chapman, Assistant General Manager, Operations – Mr. Chapman is responsible for the strategic direction and management of Metropolitan's operations. His primary responsibilities include

managing water system operations, information technology, cybersecurity, real property, and security. Mr. Chapman previously was Chief Administrative Officer from January 2018. He joined Metropolitan as a Resource Specialist in 1991, progressing to the level of Program Manager in 2001. He became the Revenue, Rates and Budget Manager in 2003 and Assistant Group Manager in Water System Operations in 2006. Mr. Chapman previously served as General Manager of the Upper San Gabriel Valley Municipal Water District for seven years. Mr. Chapman has a Bachelor of Arts degree in economics from Claremont McKenna College and a master's degree in public administration from the University of Southern California.

Dee Zinke, Assistant General Manager, External Affairs – Ms. Zinke has been responsible for Metropolitan's communications, public outreach, education, member services, and legislative matters since January 2016. She joined Metropolitan in 2009 as Manager of the Legislative Services Section. Before coming to Metropolitan, Ms. Zinke was the Manager of Governmental and Legislative Affairs at the Calleguas Municipal Water District. Prior to her public service, she worked in the private sector as the Executive Officer and Senior Legislative Advocate for the Building Industry Association of Greater Los Angeles and Ventura Counties and as Director of Communications for E-Systems, a defense contractor specializing in communication, surveillance and navigation systems in Washington, D.C. Ms. Zinke holds a Bachelor of Arts degree in communication and psychology from Virginia Polytechnic Institute and State University.

Employee Relations

General. The total number of budgeted regular full-time Metropolitan employees for fiscal year 2022-23 is 1,929. As of April 2022, Metropolitan had 1,742 positions filled, 165 positions under recruitment or vacant, and 22 new positions to become effective on July 1, 2022 for recruitment. Of the filled positions, 1,192 were represented by AFSCME Local 1902, 92 by the Supervisors Association, 300 by the Management and Professional Employees Association and 120 by the Association of Confidential Employees. The remaining 38 employees are unrepresented. The four bargaining units represent 98 percent of Metropolitan's current employees. The Memorandum of Understanding ("MOU") with AFSCME Local 1902 extends through December 31, 2024. The MOUs with the Management and Professional Employees Association and the Association of Confidential Employees extend through December 31, 2022. The MOU with the Supervisors Association is currently being negotiated. Until a successor contract is executed, the term of the expired MOU will continue to govern.

State Audit of Workplace Concerns. The acting California State Auditor ("State Auditor") conducted an audit of Metropolitan's personnel and hiring practices after Metropolitan was the subject of allegations of discrimination and harassment in the workplace. The State Auditor reviewed Metropolitan's handling of equal employment opportunity ("EEO") complaints from 2004 to 2021, as well as hiring practices, the independence and authority of Metropolitan's Ethics office, safety program, and maintenance of workforce housing at Metropolitan's desert facilities.

The State Auditor issued its audit report on April 21, 2022. The audit report identified a number of deficiencies in Metropolitan's personnel and hiring practices. The findings of the audit report included that: (i) Metropolitan's EEO policy and procedures did not align with best practices in certain key areas and did not ensure timely investigation of and response to EEO complaints; (ii) Metropolitan's hiring processes did not include appropriate safeguards to consistently ensure or demonstrate that its hiring decisions were equitable and reasonable and sufficiently protected applicants from potential discrimination; (iii) Metropolitan had not taken adequate actions to ensure its Ethics office is able to independently conduct its duties; and (iv) Metropolitan had not instituted adequate procedures to timely respond to employee workforce housing maintenance issues, and Metropolitan's implementation of a comprehensive, long-term solution to address employee workforce housing has been slow.

The State audit report included several recommendations to address its key findings. In addition to recommendations made to Metropolitan, the audit report recommends that the State Legislature enact legislation requiring Metropolitan to formally adopt procedures for hiring and promoting employees and

establishing certain additional requirements to support the independence and autonomy of Metropolitan's Ethics office. Metropolitan accepted all the State audit's recommendations and has begun to implement them to address the deficiencies identified in the State audit. In addition, Metropolitan is implementing certain policies and procedures recommended by a Workplace Climate Assessment that Metropolitan commissioned from an outside law firm and received in 2021. Among other things, Metropolitan hired its first Chief Equal Employment Opportunity Officer in March 2022 to help implement a suite of changes that will be designed to build and reaffirm a workplace culture of inclusion, respect, safety and accountability, and has created a Diversity, Equity, and Inclusion Office, which will establish programs to support its workforce. Metropolitan hired its first Chief Diversity, Equity and Inclusion Officer in May 2022.

Risk Management

Metropolitan is exposed to various risks of loss related to, among other things, the design and construction of facilities, and the treatment and delivery of water. With the assistance of third-party claims administrators, Metropolitan is self-insured for property losses, liability, and workers' compensation. Metropolitan self-insures the first $25 million per liability occurrence, with commercial general liability coverage of $75 million in excess of the self-insured retention. The $25 million self-insured retention is maintained as a separate restricted reserve. Metropolitan is also self-insured for loss or damage to its property, with the $25 million self-insured retention also being accessible for emergency repairs and Metropolitan property losses. In addition, Metropolitan obtains other excess and specialty insurance coverages such as directors' and officers' liability, fiduciary liability and aircraft hull and liability coverage.

Metropolitan self-insures the first $5 million for workers' compensation with statutory excess coverage. The self-insurance retentions and reserve levels currently maintained by Metropolitan may be modified by the Board at its sole discretion.

Cybersecurity

Metropolitan has adopted and maintains an active Cybersecurity Program ("CSP") that includes policies reviewed by Metropolitan's Office of Enterprise Cybersecurity, Audit department and independent third-party auditors and consultants. Metropolitan has appointed an Information Security Officer who is responsible for overseeing the annual review of the CSP and its alignment with Metropolitan's Strategic Plan. Metropolitan's policies and procedures on information governance, risk management, and compliance are consistent with best practices outlined by the Cybersecurity and Infrastructure Security Agency (CISA) Shields Up initiative and are consistent with the requirements prescribed by the America's Water Infrastructure Act (AWIA) for risk assessment and emergency response. Metropolitan's Cybersecurity Team is responsible for identifying cybersecurity risks to Metropolitan, preventing, investigating, and responding to any cybersecurity incidents, and providing guidance and education on the implementation of new technologies at Metropolitan. All persons or entities authorized to use Metropolitan's computer resources are required to participate in Metropolitan's Cybersecurity Awareness Training, which is conducted annually.

Business Continuity

Metropolitan maintains a Business Continuity Program to ensure that plans are in place across the District to mitigate, respond to and recover from disruptive events that may impact normal operations. The plans ensure that strategies are in place to continue critical operations in the event of impacts to information technology systems, facilities, staffing levels, key vendors and resources. Using a continuous improvement model, Business Continuity Plans are reviewed, updated and exercised on a regular basis.

COVID-19 Pandemic

The late 2019 outbreak of the novel highly transmissible strain of coronavirus (and variants thereof) and the disease it causes (known as COVID-19), has had significant negative impacts throughout the world, including in California. The World Health Organization (the "WHO") declared the outbreak of COVID-19 to

be a pandemic in 2020, and states of emergency were declared in the United States (the "U.S."), the State, and numerous counties throughout the State, including in the six counties all or portions of which comprise the service area of Metropolitan. The purpose behind these declarations was to coordinate and formalize emergency actions across federal, state, and local governmental agencies.

The Governor of California lifted most statewide COVID-19 restrictions on June 15, 2021. Restrictions, however, may be re-imposed in various jurisdictions from time to time as local conditions warrant. The negative effects of the COVID-19 pandemic and its aftermath on global, national and local economies are expected to continue at least for the foreseeable future.

Metropolitan continues to respond to the COVID-19 pandemic and ongoing developments surrounding it. Metropolitan has taken a number of steps to maintain continuity of its critical and essential business functions and avoid widespread impacts to its workforce from the COVID-19 outbreak. Metropolitan has transitioned to a formal hybrid working environment with employees reporting to work facilities for a minimum of two days a week. Metropolitan will be working with its labor and management association representatives to adopt a formal teleworking operating policy and to develop other specifics of return to work protocols.

COVID-19 is not believed to present a threat to the safety of Metropolitan's treated water supplies. During the pandemic, Metropolitan's ability to treat and deliver water has not been interrupted or impaired. While Metropolitan initially paused certain construction work on non-essential capital projects at the onset of the COVID-19 outbreak, such activity has generally resumed. Metropolitan continues to advance a variety of infrastructure and system reliability projects, although some projects continue to be delayed due to supply chain issues and other geopolitical conditions. As of the date of this Official Statement, Metropolitan has not experienced a material adverse impact to its finances or operations as a result of COVID-19.

Metropolitan also proactively responded to the anticipated effects of the ongoing COVID-19 pandemic likely to be experienced by its member agencies. Following the onset of the pandemic and response actions, many water service providers serving residential, commercial and industrial end-use customers (referred to herein as "retail water service providers"), which includes some Metropolitan member agencies, implemented measures to assist their customers facing financial hardship as a result of the COVID-19 outbreak. In December 2020, Metropolitan's Board adopted and made available to its member agencies a COVID-19 Member Agency Payment Deferment Program for water transactions occurring from January 1, 2021 to June 30, 2021. No member agency utilized the COVID-19 Member Agency Payment Deferment Program.

Metropolitan cannot predict whether any reinstatement of stay-at-home orders and travel restrictions or other measures meant to suppress increases in COVID-19 cases from time-to-time will occur or the pace at which a full economic recovery will be achieved. Given the remaining uncertainties surrounding the COVID-19 pandemic and its aftermath, there can be no assurances that COVID-19 will not materially adversely impact the financial condition of Metropolitan in the future. There are many variables that will continue to contribute to the economic impact of the COVID-19 pandemic and the recovery therefrom, including the extent to which and length of time social distancing measures are in place, the effectiveness of State and federal government relief programs, the emergence of new variants of the coronavirus, and the ultimate effectiveness of vaccinations efforts.

To date, Metropolitan does not believe the impacts of the COVID-19 pandemic will have a material adverse impact on its ability to pay debt service on its bonds or other debt obligations.

METROPOLITAN'S WATER SUPPLY

General Overview

Metropolitan's principal sources of water supplies are the State Water Project and the Colorado River. Metropolitan receives water delivered from the State Water Project under provisions of a State water supply contract, including contracted supplies, use of carryover storage in San Luis Reservoir, and surplus supplies. Metropolitan holds rights to a basic apportionment of Colorado River water and has priority rights to an additional amount depending on the availability of surplus supplies. Water management programs supplement these Colorado River supplies. To secure additional supplies, Metropolitan also has groundwater banking partnerships and water transfer and storage arrangements within and outside its service area.

Metropolitan's State Water Contract provides for up to 1,911,500 acre-feet contracted amount of State Water Project supplies annually. The amount of State Water Project water available for allocation under the State Water Contract each year is determined by the California Department of Water Resources ("DWR") based on existing supplies in storage, forecasted hydrology, and other factors, including human health and safety needs, water quality and environmental flow obligations and other operational considerations. Over the ten-year period 2012 through 2021, Metropolitan's State Water Project allocation averaged approximately 40 percent, which is equal to roughly 770,000 acre-feet annually. (An acre-foot is the amount of water that will cover one acre to a depth of one foot and equals approximately 325,851 gallons, which represents the needs of three average families in and around the home for one year within Metropolitan's service area.) Over the ten-year period 2012 through 2021, the amount of water received by Metropolitan from the State Water Project, including transfer, groundwater banking, and exchange programs delivered through the California Aqueduct varied from a low of 588,000 acre-feet in calendar year 2020 to a high of 1,473,000 acre-feet in calendar year 2017.

Metropolitan's rights to Colorado River water include a fourth priority right to 550,000 acre-feet of Colorado River water annually (its basic apportionment) and a fifth priority right to an additional 662,000 acre-feet annually (when surplus is available, which availability has been limited since 2003). Metropolitan has additional available Colorado River supplies, totaling up to 526,000 acre-feet per year, under water supply programs, transfer, exchanges, and certain conservation and storage agreements. Over the ten-year period 2012 through 2021, Metropolitan's total available Colorado River supplies have averaged approximately 958,924 acre-feet annually, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture.

Metropolitan's principal water supply sources, and other supply arrangements and water management programs are more fully described herein. See also "–Current Water Conditions and Drought Response Actions" in this Appendix A.

The water supply for Metropolitan's service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. The demand for supplemental water supplies provided by Metropolitan is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. Over the ten-year period 2012 through 2021, Metropolitan's water transactions (including water sales, exchanges and wheeling) with member agencies have averaged approximately 1.65 million acre-feet annually.

Metropolitan's water supplies in calendar year 2022 comprise a combination of available State Water Project supplies allocated to it based upon its proportional contracted entitlement amount as set forth in "Table A" of its State water supply contract ("Table A State Water Project water" as further described herein), as well as additional State Water Project supplies requested by Metropolitan for human health and safety (described below), CRA deliveries, storage reserves, and supplemental water transfers and purchases. See "–Current Water Conditions and Drought Response Actions."

Metropolitan faces a variety of long-term challenges in providing adequate, reliable and high-quality supplemental water supplies for Southern California. These include, among others: (1) population growth within the service area; (2) increased competition for low-cost water supplies; (3) variable weather conditions, including extended drought periods; (4) increased environmental regulations; and (5) climate change. Metropolitan's resources and strategies for meeting these long-term challenges are set forth in its Integrated Water Resources Plan, as updated from time to time. See "–Integrated Water Resources Plan." In addition, Metropolitan manages water supplies in response to the prevailing hydrologic conditions by implementing its Water Surplus and Drought Management ("WSDM") Plan, and in times of prolonged or severe shortages, the Water Supply Allocation Plan (the "Water Supply Allocation Plan"). See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Surplus and Drought Management Plan" and "–Water Supply Allocation Plan" in this Appendix A. The Water Supply Allocation Plan provides for the equitable distribution of available limited water supplies regionwide in case of extreme water shortages within Metropolitan's service area. Implementation of the Water Supply Allocation Plan for fiscal year 2022-23 is not expected. In April 2022, in response to minimal supplies of State Water Project water being available in 2022 to meet normal demands in parts of Metropolitan's service area that cannot be supplied with Colorado River water, Metropolitan's Board approved the framework of an Emergency Water Conservation Program to be implemented to reduce demands for State Water Project water in those areas. See "CONSERVATION AND WATER SHORTAGE MEASURES– Emergency Water Conservation Program for the State Water Project Dependent Area" in this Appendix A.

Hydrologic conditions can have a significant impact on Metropolitan's imported water supply sources. For Metropolitan's State Water Project supplies, precipitation in California's northern Sierra Nevada during the fall and winter helps replenish storage levels in Lake Oroville, a key State Water Project facility. The subsequent runoff from the spring snowmelt helps satisfy regulatory requirements in the San Francisco Bay/Sacramento-San Joaquin River Delta ("Bay-Delta") bolstering water supply reliability in the same year. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project." The source of Metropolitan's Colorado River supplies is primarily the watersheds of the Upper Colorado River Basin in the states of Colorado, Utah, and Wyoming. See "–Colorado River Aqueduct." Although precipitation is primarily observed in the winter and spring, summer storms are common and can affect water supply conditions. See also "–Current Water Conditions and Drought Response Actions" in this Appendix A.

Uncertainties from potential future temperature and precipitation changes in a climate driven by increased concentrations of atmospheric carbon dioxide and other greenhouse gases ("GHGs") also present challenges. Areas of concern to California water planners identified by researchers include: reduction in Sierra Nevada and Colorado Basin snowpack; increased intensity and frequency of extreme weather events; shifting runoff patterns to earlier in the year when reservoir storage is more constrained due to flood protection; and rising sea levels resulting in increased risk of damage from storms, high-tide events, and the erosion of levees and potential cutbacks of deliveries of imported water. While potential impacts from climate change remain subject to study and debate, climate change is among the uncertainties that Metropolitan seeks to address through its planning processes. See "–Integrated Water Resources Plan" and "–Climate Action Planning and Other Environmental, Social and Governance Initiatives."

Current Water Conditions and Drought Response Actions

The water years 2020 and 2021 combined ranked as the two driest years in California's statewide precipitation record. (A water year begins on October 1 and ends on the following September 30.) Beginning in April 2021, Governor Newsom issued a series of drought emergency proclamations affecting various counties throughout the State, culminating in an October 19, 2021 proclamation declaring a drought state of emergency to be in effect statewide and directing local water suppliers to implement water shortage contingency plans at a level appropriate to local conditions. On March 28, 2022, Governor Newsom issued an executive order directing the State Water Resources Control Board (the "SWRCB") to consider adopting regulations by May 25, 2022 that require urban water suppliers with water shortage contingency plans to implement, at a minimum, shortage response actions for a shortage level of up to 20 percent (a "Level 2"

shortage). On May 24, 2022, in response to the executive order, the SWRCB adopted a new emergency water conservation regulation. The new regulation bans irrigating turf at commercial, industrial, and institutional properties, such as grass in front of or next to large industrial or commercial buildings. The ban does not include watering turf that is used for recreation or other community purposes, water used at residences or water to maintain trees. The regulation also requires all urban water suppliers to implement conservation actions under Level 2 of their water shortage contingency plans.

As of July 6, 2022, northern Sierra precipitation was 78 percent of the 30-year average for the time of year, while the snowpack reached its peak on January 17, 2022, at 61 percent of the 30-year April 1st peak average. As of June 7, 2022, the water year runoff forecast for the Sacramento River was 10.7 million acre-feet or 60 percent of the 30-year average for the time of year. Although the end of 2021 was hydrologically above average, the State experienced the driest January through March on record in the northern Sierra to begin 2022. On March 18, 2022, following the previously mentioned record dry conditions, DWR decreased the State Water Project allocation estimate for 2022 from 15 percent to 5 percent of contracted amounts (95,575 acre-feet for Metropolitan), with additional supplies available to meet the human health and safety water needs of contractors. This follows a final allocation of 5 percent of contracted amounts in 2021.

In light of these conditions, DWR has exercised a never-before-invoked provision of the water supply contract (Article 18a) that allows State Water Project water to be allocated on some other basis than Table A to meet minimum demands for domestic supply, fire protection, or sanitation. The human health and safety water allocation is 55 gallons per person per day offset by the available local supplies. At the request of DWR, Metropolitan submitted a letter to DWR in October 2021 requesting delivery of certain human health and safety supplies to the State Water Project-dependent portion of Metropolitan's service area (the "SWP Dependent Area"), which request can be revised as needed. DWR expects contractors receiving these supplies to mandate substantial reductions in water use consistent with these emergency drought circumstances. Further, DWR will require any water taken in 2022 for human health and safety purposes to be returned within five calendar years following the calendar year of delivery, with mandatory returns to be made in years when State Water Project allocations are 40 percent of contracted amounts or greater, thus creating a water supply debt that effectively reduces future Table A allocations and slows storage recovery once the drought eases. See "–State Water Project."

The Colorado River Basin is also experiencing an extended drought. As of July 7, 2022, the Upper Colorado River Basin precipitation was 96 percent of the 30-year median. However, due to dry soil conditions and warmer than normal temperatures, as of July 5, 2022, the water year runoff forecast into Lake Powell was only 60 percent of average, again extending drought conditions in the Colorado River Basin. On July 5, 2022, the total system storage in the Colorado River Basin was 36 percent of capacity, which is a decrease of 5 percent, or 4.2 million acre-feet, from the same time last year. On August 16, 2021, the United States Bureau of Reclamation (the "Bureau of Reclamation") declared a shortage condition for the Colorado River Basin, as the storage level of Lake Mead behind Hoover Dam fell below an elevation of 1,075 feet. This shortage condition results in reduced deliveries to Arizona, Nevada, and Mexico. Because of its higher priority, California, including Metropolitan, is not affected by this shortage declaration and will be able to take ICS (defined below) out of Lake Mead, if needed, to augment Metropolitan's Colorado River supplies to meet demands in its service area. As of June 27, 2022, the projected supply of Colorado River water available to Metropolitan in calendar year 2022 was estimated to be 911,000 acre-feet, which will be augmented with water stored in Lake Mead to meet local water demands.

Lake Powell has declined to the second lowest elevation since it was filled nearly sixty years ago. On May 4, 2022, the Department of Interior announced that it will reduce releases of water from Glen Canyon Dam from the planned amount of 7.48 million acre-feet to 7.0 million acre-feet during the 2022 water year in order to reduce or delay Lake Powell declining below critically low elevations. Operation of Glen Canyon Dam below certain elevations may threaten dam infrastructure, would interrupt hydropower generation and would interrupt water supplies for two communities near Glen Canyon Dam. This action is being taken to avoid these outcomes. The Bureau of Reclamation will address the future release of these 480,000 acre-feet

with input from the Colorado River Basin States. The Bureau of Reclamation and the States of the Upper Division of the Colorado River Basin announced the 2022 Drought Response Operations Agreement plan to release 500,000 acre-feet of water from Flaming Gorge. This action is also intended to support the elevation of Lake Powell.

The elevations of Lake Mead and Lake Powell have continued to decline. On June 14, 2022, in testimony before the United States Senate, the Commissioner of the Bureau of Reclamation announced that the Bureau of Reclamation estimates that between two and four million acre-feet of additional conservation is needed in the Colorado River system in 2023 in order to prevent further declines in Lake Mead and Lake Powell below critical levels. The Commissioner called upon the Colorado River Basin States (hereinafter defined) to develop a plan for the needed conservation measures within 60 days. The Commissioner further indicated that the Bureau of Reclamation was prepared to use its emergency authority to mandate measures if agreement among the states could not be reached. See "–Colorado River Aqueduct."

Metropolitan has planned and prepared for dry conditions by investing in vital infrastructure to increase its storage capacity and enhance operational flexibility. Metropolitan met the water demands in its service area in calendar year 2021 using a combination of CRA deliveries, storage reserves and supplemental water transfers and purchases. On April 13, 2021, the Board authorized the General Manager to secure up to 65,000 acre-feet of additional water pursuant to one-year water transfers from water districts located north of the Sacramento-San Joaquin River, at a maximum cost of up to $44 million. Approximately 40,000 acre-feet were secured. The authorized water transfers allowed Metropolitan to preserve some water stored in surface water reservoirs on the State Water Project system for 2022.

Metropolitan's storage as of January 1, 2022 is estimated to be 3.38 million acre-feet. See "–Storage Capacity and Water in Storage" in this Appendix A. As of June 27, 2022, Metropolitan's projected supply/demand gap estimate for the calendar year 2022 is approximately 629,000 acre-feet based upon its demand estimate of 1.80 million acre-feet, the State Water Project allocation estimate of 5 percent of contracted amounts, and its Colorado River Aqueduct supply estimate of 911,000 acre-feet. Metropolitan is prepared to fill the supply/demand gap and meet water demands in its service area in the calendar year 2022 using a combination of available State Water Project Table A supplies as well as additional State Water Project supplies requested by Metropolitan for human health and safety, CRA deliveries, storage reserves, supplemental water transfers and purchases, and conservation. Metropolitan has initiated the process to withdraw from its dry-year storage reserves in the State Water Project banking programs and flexible storage accounts. In December 2021, Metropolitan's Board approved the purchase of 4,200 acre-feet and a lease of 5,000 acre-feet of return capacity from San Diego County Water Authority's Semitropic Program for 2022. See "–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs – *San Diego County Water Authority Semitropic Program.*" Also, in December 2021, Metropolitan's Board authorized the General Manager to enter into agreements with San Bernardino Valley Municipal Water District ("SBVMWD") and DWR to improve the management of State Water Project supplies, including the framework for exchange of water. Pursuant to such authority, effective as of April 1, 2022, Metropolitan and SBVMWD entered into a 2022 exchange agreement that provides for the exchange of both local and State Water Project supplies in 2022. Under this agreement, during calendar year 2022, Metropolitan may request up to 3,000 acre-feet of carryover water stored in San Luis Reservoir and up to 1,000 acre-feet/month of groundwater. This additional supply will help member agencies within the SWP Dependent Area. See also "–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs – *San Bernardino Valley Municipal Water District Exchange Program*" in this Appendix A. On April 12, 2022, the Board authorized the General Manager to secure up to 75,000 acre-feet of additional water pursuant to one-year water transfers from water districts located north of the Sacramento-San Joaquin River Delta, at a maximum cost of up to $60 million. As of May 31, 2022, Metropolitan estimates it has in place arrangements for approximately 19,000 acre-feet of transfers pursuant to this authority.

Since early 2021, in response to persistent dry conditions, Metropolitan has implemented certain operational measures and programs to minimize State Water Project deliveries and preserve State Water

Project supplies, expand the delivery of Colorado River water, and store supplies further in the distribution system. These measures were made possible by Metropolitan's continued investment in facility upgrades and improvements. Metropolitan also coordinated with several member agencies to shift from service connections that utilize State Water Project supplies to service connections that use Colorado River water to conserve State Water Project supplies. See "–Water Transfer, Storage and Exchange Programs –State Water Project and Colorado River Aqueduct Arrangements – *Operational Shift Cost Offset Program."*

Metropolitan continues to encourage responsible and efficient water use to lower demands. Following the Governor's October 2021 proclamation of a statewide drought emergency, on November 9, 2021, Metropolitan's Board of Directors declared a drought emergency and called on its member agencies dependent on State Water Project water to use increased conservation measures or other means to reduce their use of those supplies. To assist in these conservation efforts, Metropolitan's board also approved a series of measures to expand various rebate and water-efficiency programs. On April 26, 2022 Metropolitan's board approved the framework of an Emergency Water Conservation Program to further reduce demand on State Water Project supplies. See "CONSERVATION AND WATER SHORTAGE MEASURES–Emergency Water Conservation Program for the State Water Project Dependent Area" in this Appendix A.

Metropolitan's Upper Feeder pipeline, which delivers untreated water from Lake Mathews to the F.E. Weymouth Water Treatment Plant, and treated water from the Weymouth plant to the Eagle Rock control facility in the City of Los Angeles, is expected to be taken out of service for an estimated 15-day emergency shutdown to complete certain needed repairs, beginning in late August or early September 2022. To conserve limited supplies during the shutdown, Metropolitan, in coordination with all member agencies downstream of the Upper Feeder and the Weymouth and Diemer treatment plants, will be seeking additional significant, voluntary conservation efforts by customers of these member agencies during the period of the shutdown. Affected agencies include most of the member agencies in the central Los Angeles and Orange County areas. The shutdown is not expected to change the conservation requirements for the SWP Dependent Area.

Metropolitan's financial reserve policy provides funds to manage through periods of reduced sales. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. In years when actual sales are less than projections, Metropolitan uses various tools to manage reductions in revenues, such as reducing expenditures below budgeted levels, reducing funding of capital projects from revenues, and drawing on reserves. See also "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Integrated Water Resources Plan

Overview and Background. The Integrated Water Resources Plan (the "IRP") is Metropolitan's principal water resources planning document. Metropolitan, its member agencies, subagencies and groundwater basin managers developed Metropolitan's first IRP as a long-term planning guideline for resources and capital investments over a 25-year planning cycle. The purpose of the IRP was the development of a portfolio of preferred resources to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner. The first IRP was adopted by the Board in January 1996 and has been subsequently updated approximately every five years (*i.e.*, in 2004, 2010 and 2015). Work on Metropolitan's 2020 IRP commenced in February 2020 and is ongoing as described under "*–2020 IRP*" below.

Metropolitan's last IRP update (the "2015 IRP Update") was adopted by the Board on January 12, 2016 as a strategy to set goals and a framework for water resources development. The strategy reflected in the 2015 IRP Update was aimed at providing regional reliability through 2040 by stabilizing Metropolitan's traditional imported water supplies and continuing to develop additional conservation programs and local resources, with an increased emphasis on regional collaboration. It also advances long-term planning for potential future contingency resources, such as storm water capture and seawater desalination.

Specifically, the 2015 IRP Update identifies the goals, approaches and regional targets for water resource development that are needed to ensure reliability under planned conditions through the year 2040, focusing on the following primary resource areas: (i) State Water Project, (ii) Colorado River Aqueduct, (iii) water transfers and exchanges; (iv) water conservation, and (v) local water supplies. It provides an adaptive management approach to address future uncertainty, including uncertainty from climate change. Adaptive water management, as opposed to a rigid set of planned actions over future decades, is designed to be a systematic process for improving management policies and practices by learning from the outcomes of implemented management strategies. An adaptive management approach began to evolve with Metropolitan's first IRP in 1996, after drought-related shortages in 1991 prompted a rethinking of Southern California's long-term water strategy. Reliance on imported supplies to meet future water needs has decreased steadily over time, replaced by plans for local actions to meet new demands. The 2015 IRP Update continues a diversified portfolio approach to water management.

2020 IRP. In February 2020, Metropolitan initiated a new process for the development of the 2020 IRP. The year 2020 marked the conclusion of the 25-year planning cycle envisioned by the original 1996 IRP. The 2020 IRP, development of which is ongoing, builds upon Metropolitan's adaptive management strategy by utilizing a scenario planning approach. The 2020 IRP anticipates ranges for how much water Southern California can expect from its imported and local supplies, as well as regional water demands, across four plausible scenarios through 2045.

Development of the 2020 IRP is being undertaken in two phases (i) Phase 1: Regional Needs Assessment, and (ii) Phase 2: One Water Implementation. As the first phase of the 2020 IRP's development, the Regional Needs Assessment analyzed potential gaps between the expected supplies and the forecasted demands across the four IRP scenarios. The Regional Needs Assessment presents key technical findings and examines the effectiveness of generalized portfolio categories. The Regional Needs Assessment also frames and guides the establishment of more specific targets to maintain reliability over the planning period and informs Metropolitan's Board on resource investment decisions as well as the establishment of a plan to fund them. In light of the future uncertainties inherent in long-term resource planning, including uncertainties about climate change and regulatory requirements, as well as Southern California's population and economy, the 2020 IRP's scenario planning approach better prepares the region for a wider range of potential outcomes by identifying solutions and policies across a variety of possible future conditions. This strategy is designed to enable Metropolitan and its member agencies to manage future challenges and changes in California's water conditions and to balance investments with water reliability benefits.

The Board adopted the 2020 IRP Regional Needs Assessment Report in April 2022, thus completing the IRP Regional Needs Assessment phase. The 2020 IRP Regional Needs Assessment outcomes can be summarized through a set of findings grounded in the scenario reliability analysis. The findings fall within five key focus areas: SWP Dependent Areas, Storage, Retail Demand/Demand Management, Metropolitan Imported Supplies, and Local Supply. Adopting the Regional Needs Assessment allows the analysis and findings to serve as both a foundation and as guardrails for the One Water Implementation phase.

The One Water Implementation phase will take the results and findings of Phase 1 into a collaborative process to identify integrated regional solutions. Using a One Water approach, the implementation phase will translate the high-level portfolio analysis from Phase 1 into specific policies, programs, and projects to address the findings and mitigate the potential shortages. Comprehensive, adaptive management strategy and evaluation criteria will be developed to guide these specific actions. The adaptive management strategy will also establish a process for monitoring key reliability indicators to support decision-making.

Information and materials relating to Metropolitan's ongoing development of its 2020 IRP are available at: https://www.mwdh2o.com/how-we-plan/integrated-resource-plan/. The materials and other information set forth on Metropolitan's website are not incorporated into this Appendix A and should not be construed to be a part of this Appendix A by virtue of the foregoing reference to such materials and website.

Specific projects identified by Metropolitan in connection with the implementation of its IRP are subject to Board consideration and approval, as well as environmental and regulatory documentation and compliance.

Climate Action Planning and Other Environmental, Social and Governance Initiatives

General; Background. Metropolitan has long supported sustainability efforts, dating back to its founding in 1928, when planners and engineers designed the CRA to deliver water primarily by gravity across 242 miles of California desert to the State's south coastal plain. Metropolitan recognized the need for a reliable supply of power by investing in the construction of Hoover Dam and Parker Dam. Together, these dams produce clean, carbon-free energy that supply more than half of the energy needed to power the CRA pumps.

In the decades that followed, Metropolitan has continued to make investments in clean energy and energy-efficient design to reduce GHG emissions, as well as climate adaptation investments to bolster water supply availability, particularly during times of drought. In addition, Metropolitan has partnered with the scientific community, including academic research institutions and the private sector, to test and ultimately implement advanced technologies that monitor and enhance Metropolitan's water supplies. Metropolitan's efforts to date in this area have focused not only on the goal of achieving broad environmental sustainability and efficiency objectives but also environmental risk mitigation.

Metropolitan has adopted or is in the process of adopting several planning documents that address the core issues of environmental sustainability, improving climate resiliency of operations, and advancing the goal of carbon neutrality. These documents include the Climate Action Plan, the Energy Sustainability Plan, the 2020 IRP and Metropolitan's Capital Improvement Plan. Metropolitan will be coordinating its ongoing sustainability efforts through its Chief Sustainability, Resiliency and Innovation Officer ("SRI Officer"). Metropolitan hired its first SRI Officer in March 2022. The SRI Officer is a newly created executive position that reports directly to the General Manager. Metropolitan's SRI Officer will play a central role in refining and implementing Metropolitan's existing climate action goals, as well as developing new goals to help Metropolitan meet its objectives across the organization.

Climate Change and Climate Action Plan. Climate change is expected to increase average temperatures across the western United States. In the Colorado River Basin, that is expected to result in decreased runoff and lower flows as less snow is coupled with increased evapotranspiration from trees and plants. In the Sierra Nevada, precipitation is anticipated to increasingly fall as rain in a few large storms, rather than as snow. Sierra snowpack, a critical storage tool in California's water management as it holds water high in the mountains until peak summer demand, has been projected to decrease by up to 65 percent by the end of the century. In the local Southern California region, climate change threatens groundwater basins with saltwater intrusion and less natural replenishment. These factors are expected to reduce the reliability of Metropolitan's imported water supply for Southern California.

Metropolitan has long recognized the threat to its water supply posed by these long-term impacts and has been addressing climate change for more than two decades through its IRP. Pursuant to its IRP (originally adopted in January 1996 and subsequently updated in 2004, 2010 and 2015), Metropolitan has invested in local supplies, developed new storage, and increased the flexibility of its water system facilities to be able to take delivery of water from diverse sources when available. Below are a few examples:

- Metropolitan has increased the water storage capacity of its dams and reservoirs by more than 13-fold since 1990 and has built the Inland Feeder, a large conveyance pipeline that allows for the movement of water into that storage. See "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A. With snowpack dwindling, these investments provide a valuable opportunity to capture water in wet years and save it for dry ones.

- Metropolitan has increased the operational flexibility of its water delivery system through infrastructure improvements, such as the Inland Feeder, which provides the ability to capture and store high allocations of State Water Project supplies when available, and agreements to deliver Colorado River water supplies when State supplies are in drought, and vice versa. See "–Water Transfer, Storage and Exchange Programs."

- Metropolitan has invested approximately $840 million in conservation programs, which have helped decrease per capita water consumption over time in Metropolitan's service area from 207 gallons per person per day in 1990 to 127 gallons per person per day in 2017 – a 39 percent reduction. Metropolitan plans to continue to expand these efforts into the future. See "CONSERVATION AND WATER STORAGE MEASURES" in this Appendix A.

- Metropolitan's Local Resources Program accelerates the development of local water supply reliability projects by incentivizing agencies within Metropolitan's service area to construct recycled water, groundwater recovery and seawater desalination projects. Since 1982, Metropolitan has invested approximately $528 million in recycled water projects, a resilient supply source not impacted by climate change. See "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

- Metropolitan has partnered with other utilities and organizations across the nation to understand both the effects of climate change and potential opportunities to build resilience. These collaborators include the Water Utility Climate Alliance, a collaboration of large water providers working on climate issues affecting the country's water agencies, and the California Resilience Challenge, a collaboration of businesses, utilities, and non-profit organizations developing climate adaptation planning projects.

In May 2022, Metropolitan adopted a Climate Action Plan, a comprehensive planning document that outlines Metropolitan's strategy for reducing GHG emissions associated with future construction, operation, and maintenance activities. The Climate Action Plan includes an analysis of Metropolitan's historical GHG emissions, a forecast of future GHG emissions, sets a GHG reduction target for reducing emissions consistent with applicable state policies, and identifies a suite of specific GHG reduction actions that Metropolitan can implement to achieve its adopted targets. The Climate Action Plan establishes a GHG emissions reduction goal of 40 percent by 2030 and carbon neutrality by 2045. Metropolitan's Climate Action Plan includes nine strategies that target the reduction of direct emissions from natural gas and fuel combustion by supporting the transition to a zero emissions vehicle fleet and reduction of natural gas combustion; reducing indirect emissions associated with electricity consumption through improved energy efficiency and utilizing low-carbon and carbon-free electricity; and implementing GHG reduction measures that incentivize sustainable employee commutes, increase waste diversion, increase water conservation and local water supply, and investigating and implementing carbon capture and carbon sequestration opportunities on Metropolitan-owned lands.

Metropolitan's Climate Action Plan includes an implementation strategy, annual GHG inventories, a public-facing tracking and monitoring tool to ensure progress towards meeting its goal, and five-year updates to capture new and emerging technologies for GHG emissions reductions. The strategies included in the Climate Action Plan provide the co-benefits of improved infrastructure reliability, greater energy resiliency, and expected reduced costs associated with energy procurement and maintenance.

Energy Sustainability. Metropolitan meets its energy demands through its investments in hydroelectric and solar power and the purchase of more than 2,000 GWh of electricity annually from the regional power grid. In November 2020, Metropolitan developed an Energy Sustainability Plan. The Energy Sustainability Plan includes a framework of sustainable actions focused on energy cost containment, reliability, affordability, conservation and adaptation, including reconfiguring certain existing power plants and variable-speed pump drives at pumping stations, and assessing the integration of islanded operations for microgrid purposes. Metropolitan invests in renewable energy resources, including buying and generating hydroelectric power to help meet much of its electricity needs. Currently, over three-quarters of Metropolitan's pumping and

water treatment energy needs are met through renewable/sustainable energy resources. In addition to using power generated at Parker and Hoover Dams, Metropolitan has built 15 in-stream hydroelectric plants throughout its distribution system with a total capacity of about 130 megawatts. Metropolitan has also installed 5.5 megawatts of photovoltaic solar power at its facilities and is implementing a project to add battery energy storage to store green energy when power rates are low and discharge that energy when rates are higher.

Diversity, Equity and Inclusion and Governance. In its dedication to improving workplace culture for all employees, Metropolitan's Board has adopted a statement pledging its support of diversity, equity and inclusion initiatives. The Statement of Commitment is the result of a collaborative discussion among the 38-member board and provides guidance so that staff can develop, implement and maintain policies and practices to support diversity, equity and inclusion. In May 2022, Metropolitan hired its first Chief Diversity, Equity and Inclusion officer to help plan, develop, and implement strategies and initiatives designed to ensure that Metropolitan is a diverse and inclusive organization. See "GOVERNANCE AND MANAGEMENT–Management" and "–Employee Relations" in this Appendix A.

State Water Project

Background and Current Supply

One of Metropolitan's two major sources of water is the State Water Project, which is owned by the State, and managed and operated by DWR. The State Water Project is the largest state-built, multipurpose, user-financed water project in the country. It was designed and built primarily to deliver water, but also provides flood control, generates power for pumping, is used for recreation, and enhances habitat for fish and wildlife. The State Water Project provides irrigation water to 750,000 acres of farmland, mostly in the San Joaquin Valley, and provides municipal and industrial water to approximately 27 million of California's estimated 39.4 million residents, including the population within the service area of Metropolitan.

The State Water Project's watershed encompasses the mountains and waterways around the Feather River, the principal tributary of the Sacramento River, in the Sacramento Valley of Northern California. Through the State Water Project, Feather River water stored in and released from Oroville Dam (located about 70 miles north of Sacramento, east of the city of Oroville, California) and unregulated flows diverted directly from the Bay-Delta are transported south through the Central Valley of California, over the Tehachapi Mountains and into Southern California, via the California Aqueduct, to four delivery points near the northern and eastern boundaries of Metropolitan's service area. The total length of the California Aqueduct is approximately 444 miles. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Primary Facilities and Method of Delivery –*State Water Project*" in this Appendix A.

From calendar year 2012 through 2021, the amount of water received by Metropolitan from the State Water Project, including water from water transfer, groundwater banking and exchange programs delivered through the California Aqueduct (described under "–Water Transfer, Storage and Exchange Programs" below), varied from a low of 588,000 acre-feet in the calendar year 2020 to a high of 1,473,000 acre-feet in 2017. In the calendar year 2020, DWR's allocation to State Water Contractors (defined below) was 20 percent of contracted amounts, or 382,300 acre-feet, for Metropolitan. In the calendar year 2021, DWR's allocation to State Water Contractors was 5 percent of contracted amounts, or 95,575 acre-feet, for Metropolitan.

On December 1, 2021, DWR announced an initial calendar year 2022 allocation of 0 percent. In light of the unprecedented drought conditions, DWR stated that the initial allocation for 2022 would focus on the health and safety needs of the 29 State Water Contractors. On January 20, 2022, DWR increased the allocation estimate to 15 percent of contracted amounts, or 286,725 acre-feet for Metropolitan, based on increased precipitation and estimates of future runoff under very dry conditions. On March 18, 2022, due to extremely dry conditions, DWR decreased the allocation to 5 percent of contracted amounts, with additional supplies available to meet the health and safety water needs of State Water Contractors. Further changes to the 2022 allocation are unlikely as the rainy season has passed and the record dry conditions are ongoing. See also "–Current Water Conditions and Drought Response Actions."

State Water Contract

General Terms of the Contract. In 1960, Metropolitan signed a water supply contract (as amended, the "State Water Contract") with DWR to receive water from the State Water Project. Metropolitan is one of 29 agencies and districts that have long-term contracts for water service from DWR (known collectively as the "State Water Contractors" and sometimes referred to herein as "Contractors"). Metropolitan is the largest of the State Water Contractors in terms of the number of people it serves (approximately 19 million), the share of State Water Project water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water supply contracts (approximately 51 percent for calendar year 2022). Metropolitan received its first delivery of State Water Project water in 1972.

Pursuant to the terms of the State water supply contracts, all water-supply related expenditures for capital and operations, maintenance, power, and replacement costs associated with the State Water Project facilities are paid for by the State Water Contractors as components of their annual payment obligations to DWR. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them. Each year DWR estimates the total State Water Project water available for delivery to the State Water Contractors and allocates the available project water among the State Water Contractors in accordance with the State water supply contracts. Late each year, DWR announces an initial allocation estimate for the upcoming year, but periodically provides subsequent estimates throughout the year if warranted by developing precipitation and water supply conditions. Based upon the updated rainfall and snowpack values, DWR's total water supply availability projections are refined during each calendar year and allocations to the State Water Contractors are adjusted accordingly.

Under its State Water Contract, Metropolitan has a contractual right to its proportionate share of the State Water Project water that DWR determines annually is available for allocation to the Contractors. This determination is made by DWR each year based on existing supplies in storage, forecasted hydrology, and other factors, including water quality and environmental flow obligations and other operational considerations. Available State Water Project water is then allocated to the Contractors in proportion to the amounts set forth in "Table A" of their respective State water supply contract (sometimes referred to herein as "Table A State Water Project water"); provided, that in accordance with the terms of the State water supply contracts, the State may allocate on some other basis if such action is required to meet minimum demands of contractors for domestic supply, fire protection, or sanitation during the year. Pursuant to Table A of its State Water Contract, Metropolitan is entitled to approximately 46 percent of the total annual allocation made available to State Water Contractors each year. Metropolitan's State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. The 100 percent allocation is referred to as the contracted amount. See also "–Current Water Conditions and Drought Response Actions" for information regarding Metropolitan's allocation of State Water Project water for 2022.

The term of Metropolitan's State Water Contract currently extends to December 31, 2035, or until all DWR bonds issued to finance construction of project facilities are repaid, whichever is longer. Upon expiration of the State Water Contract term, Metropolitan has the option to continue service under substantially the same terms and conditions. See also "*–Amendment of Contract Term*."

Monterey Amendment. Amendments, approved by Metropolitan's Board in 1995, and since executed by DWR and 27 of the State Water Contractors (collectively known as the "Monterey Amendment"), among other things, made explicit that the Contractors' rights to use the portion of the State Water Project conveyance system necessary to deliver water to them also includes the right to convey non-State Water Project water at no additional cost as long as capacity exists. These amendments also expanded the ability of the State Water Contractors to carry over State Water Project water in State Water Project storage facilities, allowed participating Contractors to borrow water from terminal reservoirs, and allowed Contractors to store water in groundwater storage facilities outside a Contractor's service area for later use. These amendments provided the means for individual Contractors to increase supply reliability through water transfers and storage outside

their service area. Metropolitan has subsequently developed and actively manages a portfolio of water supplies to convey through the California Aqueduct pursuant to these contractual rights. See "–Water Transfer, Storage and Exchange Programs."

The adequacy of the Environmental Impact Report ("EIR") for the Monterey Amendment was challenged in litigation. After revising the EIR and completing remedial CEQA review, in September 2021, the Court of Appeal upheld the adequacy of the EIR, the validity of the Monterey Amendment and the agreement relating to the Kern Water Bank (a portion of the Monterey Amendment that does not directly affect Metropolitan), and the trial court's denial of attorney fees for one of the plaintiffs.

On January 5, 2022, the California Supreme Court denied petitions seeking review of the Court of Appeal's decision. The Court of Appeal's decision upholding the Monterey Amendment is therefore final.

Project Improvement Amendments. Metropolitan's State Water Contract has been amended a number of times since its original execution and delivery. Several of the amendments, entered into by DWR and various subsets of State Water Contractors, relate to the financing and construction of a variety of State Water Project facilities and improvements and impose certain cost responsibility therefor on the affected Contractors, including Metropolitan. For a description of Metropolitan's financial obligations under its State Water Contract, including with respect to such amendments, see "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Water Management Amendments. Metropolitan and other State Water Contractors have undertaken negotiations with DWR to amend their State water supply contracts to clarify the criteria applicable to certain water management tools including single and multi-year water transfers and exchanges. The water management provisions amendment allows for greater flexibility for transfers and exchanges among the State Water Contractors. Specifically, the amendment confirms existing practices for exchanges, allows more flexibility for non-permanent water transfers, and allows for the transfer and exchange of certain portions of Article 56 carryover water (see "–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs – *Metropolitan Article 56 Carryover*"). DWR certified a final EIR for the water management amendments in August 2020. In September 2020, North Coast Rivers Alliance, California Water Impact Network and others separately filed two lawsuits challenging DWR's final EIR and approval of the State water supply contract water management provisions amendment under CEQA. North Coast Rivers Alliance also alleges violations of the Delta Reform Act, and public trust doctrine, and seeks declaratory and injunctive relief. The cases were deemed related and assigned to the same judge. DWR is in the process of compiling the administrative record. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time. Despite the pending litigation, enough of the State Water Contractors approved and executed the amendments as required by DWR for it to be deemed fully executed. The amendments went into effect on February 28, 2021. The State Water Contractors association has intervened in the two related cases to protect the interests of the Contractors.

Amendment of Contract Term. DWR and the State Water Contractors reached an Agreement in Principle (the "Agreement in Principle") on an amendment to their State water supply contracts to extend the contracts beyond December 31, 2035 and to make certain changes related to financial management of the State Water Project (which, following the execution of the amendment, are expected to be implemented beginning on January 1, 2024). DWR and 25 of the State Water Contractors, including Metropolitan, have signed the Agreement in Principle. Under the Agreement in Principle, the term of the State water supply contract for each Contractor that signs an amendment would be extended until December 31, 2085. The Agreement in Principle served as the "proposed project" for purposes of environmental review under CEQA. Three separate lawsuits were filed relating to the contract extension: one, a validation action, by DWR seeking to validate the contract extension, and two others, separate petitions for writ of mandate and a complaint for declaratory and injunctive relief challenging DWR's final EIR and approval of the State water supply contract extension amendment under CEQA, the Delta Reform Act, and public trust doctrine. The validation and CEQA cases were deemed related by the court and assigned to a single judge. After a three-day trial in January 2022, the court issued a

final statement of decision on March 9, 2022 ruling that the amendments are valid and denying the petitions for writs of mandate challenging the final EIR and rejecting the Delta Reform Act and public trust causes of action. In late April, final judgments were entered in all three cases and served on the parties. On May 20, 2022, one group of petitioners filed a notice of appeal in the validation action. On May 24, 2022, a different group of petitioners filed a notice of appeal in one of the writ actions. Any potential adverse impact of appeals on Metropolitan's State Water Project supplies cannot be determined at this time. As of May 2022, 22 of the 29 State Water Contractors, including Metropolitan, have executed the amendment, exceeding the DWR established threshold needed for it to be implemented. Considering the favorable outcome at trial, DWR is considering moving forward with implementation of the amendments with individual State Water Contractors. Unless the contract extension amendment is implemented, the amortization period for any future DWR bonds issued for the State Water Project will end in 2035.

Amendments for Allocation of Conveyance Costs. Metropolitan and other State Water Contractors embarked on a third public process to further negotiate proposed amendments to their State water supply contracts related to cost allocation for a potential Delta Conveyance Project. Pursuant to the terms of the Monterey settlement (referenced above), negotiations for this State Water Project contract amendment were completed in public. In March 2021, DWR and the State Water Contractors concluded public negotiations and reached an Agreement in Principle (the "Delta Conveyance AIP") that will be the basis for amendment of the State water supply contracts. The future contract amendment contemplated by the Delta Conveyance AIP would provide a mechanism that would allow for the costs related to any Delta Conveyance Project to be allocated and collected by DWR. The Delta Conveyance AIP also provides for the allocation of benefits for any Delta Conveyance Project in proportion to each State Water Contractor's participation. DWR will maintain a table reflecting decisions made by public agency boards regarding that agency's participation. Contract language for the proposed amendments is under development. Consideration of the amendments for approval by DWR and the State Water Contractors would not occur until after DWR's completion of the Delta Conveyance Project environmental review, which is not expected before 2024. See "*–Bay-Delta Planning Activities*" and "*–Delta Conveyance*" under "Bay-Delta Proceedings Affecting State Water Project" below.

Coordinated Operations with Central Valley Project

DWR operates the State Water Project in coordination with the federal Central Valley Project, which is operated by the Bureau of Reclamation. Since 1986, the coordinated operations have been undertaken pursuant to a Coordinated Operations Agreement for the Central Valley Project and State Water Project (the "COA"). The COA defines how the State and federal water projects share water quality and environmental flow obligations imposed by regulatory agencies. The agreement calls for periodic review to determine whether updates are needed in light of changed conditions. After completing a joint review process, DWR and the Bureau of Reclamation agreed to amend the COA to reflect water quality regulations, biological opinions and hydrology updated since the 1986 agreement was signed. On December 13, 2018, DWR and the Bureau of Reclamation executed an Addendum to the COA (the "COA Addendum"). The COA Addendum provides for DWR's adjustment of current State Water Project operations to modify pumping operations, as well as project storage withdrawals to meet in-basin uses, pursuant to revised calculations based on water year types. The COA Addendum will shift responsibilities for meeting obligations between the Central Valley Project and the State Water Project, resulting in a shift of approximately 120,000 acre-feet in long-term average annual exports from the State Water Project to the Central Valley Project.

In executing the COA Addendum, DWR found the agreement to be exempt from environmental review under CEQA as an ongoing project and that the adjustments in operations are within the original scope of the project. On January 16, 2019, commercial fishing groups and an American Indian tribe ("petitioners") filed a lawsuit against DWR alleging that entering the COA Addendum violated CEQA, the Delta Reform Act, and the public trust doctrine. On April 11, 2019, Westlands Water District ("Westlands") filed a motion to intervene, which was not opposed by any party. The court granted Westlands' motion on June 7, 2019. On October 7, 2019, the North Delta Water Agency filed a motion to intervene. On November 19, 2019, the court granted North Delta Water Agency's motion. The petitioners are still in the process of preparing the

administrative record. A hearing on the merits has been set for July 22, 2022. The effect of this lawsuit on the COA Addendum and State Water Project operations cannot be determined at this time.

2017 Oroville Dam Spillway Incident

Oroville Dam, the earthfill embankment dam on the Feather River which impounds Lake Oroville, is operated by DWR as a facility of the State Water Project. On February 7, 2017, the main flood control spillway at Oroville Dam, a gated and concrete lined facility, experienced significant damage as DWR released water to manage higher inflows driven by continued precipitation in the Feather River basin. The damaged main spillway impaired DWR's ability to manage lake levels causing water to flow over the emergency spillway structure, an ungated, 1,730-foot-long concrete barrier located adjacent to the main flood control spillway structure. Use of the emergency spillway structure resulted in erosion that threatened the stability of the emergency spillway structure. This concern prompted the Butte County Sheriff to issue an evacuation order for approximately 200,000 people living in Oroville and the surrounding communities.

On November 1, 2018, DWR completed reconstruction of the main spillway to its original design capacity of approximately 270,000 cubic feet per second ("cfs"), a capacity almost twice its highest historical outflow. Work on the emergency spillway was substantially completed in April 2019. Mitigation measures such as slope revegetation were completed in 2021. DWR has estimated the total costs of the recovery and restoration project prior to any federal or other reimbursement to be approximately $1.2 billion. As of March 2022, DWR has received or expects to receive reimbursement of a total of approximately $617 million of these costs under the Public Assistance Program of the Federal Emergency Management Agency ("FEMA"). Unrecovered costs of about $602 million were charged to the State Water Contractors under the State Water Contracts, of which Metropolitan's share totaled about $275 million. DWR financed these unrecovered costs with DWR bonds.

Various lawsuits have been filed against DWR asserting claims for property damage, economic losses, environmental impacts and civil penalties related to this incident. Neither Metropolitan nor any other State Water Contractor was named as a defendant in any of these lawsuits. These cases, which have been coordinated in Sacramento Superior Court (Case No. JCCP 4974), include a lawsuit filed by the Butte County District Attorney ("DA") that seeks up to $51 billion in civil penalties. This lawsuit asserts a single claim under California Fish and Game Code section 5650, *et seq.*, which makes it unlawful to deposit or place certain substances into the waters of the State, including lime, slag and "any substance or material deleterious to fish, plant life, mammals, or bird life." Among other things, the statute provides for the assessment of civil penalties of up to $25,000 a day and $10 per pound of material deposited in violation of its strictures.

DWR filed a motion for summary judgment in the Butte County DA case on September 3, 2020. On December 18, 2020, the Sacramento Superior Court issued a ruling granting DWR's motion. In its ruling, the court determined that, as a matter of law, DWR is not a person subject to the penalty provisions of the California Fish and Game Code section at issue, and therefore the Butte County DA's complaint failed to state a cause of action. As a result of the granting of the motion, the matter was dismissed by the trial court. The judgment was entered on January 11, 2021. The Butte County DA filed a notice of appeal on February 9, 2021. On March 30, 2021, the Third District Court of Appeal ordered this case to mediation, but no settlement was reached. As a result, the court terminated the mediation on January 6, 2022. The record on appeal has been designated, but no briefing schedule has been set. At this time, Metropolitan cannot predict the outcome of this litigation or the amount of civil penalties that might be assessed in the event the Butte County DA prevails on an appeal of the decision.

The State water supply contracts provide that Metropolitan and the other State Water Contractors are not liable for any claim of damage of any nature arising out of or connected to the control, carriage, handling, use, disposal or distribution of State Water Project water prior to the point where it reaches their turnouts. However, DWR has asserted that regardless of legal liability all costs of the State Water Project system must be borne by State Water Contractors. Thus, DWR has indicated that it intends to bill the State Water Contractors for any expenditures related to litigation (cost of litigation, settlements, damages awards/verdicts)

arising from the Oroville Dam spillway incident and costs incurred by DWR to date have been reflected in DWR charges. Metropolitan has established that all charges related to this litigation are being paid under protest, and it has an existing tolling agreement with DWR to preserve its legal right to seek recovery of these charges and/or dispute any future charges that DWR may seek to assess related to such litigation.

Bay-Delta Proceedings Affecting State Water Project

General. In addition to being a source of water for diversion into the State Water Project, the Bay-Delta is the source of water for local agricultural, municipal, and industrial needs. The Bay-Delta also supports significant resident and anadromous fish and wildlife resources, as well as recreational uses of water. Both the State Water Project's upstream reservoir operations and its Bay-Delta diversions can at times affect these other uses of Bay-Delta water directly, or indirectly, through impacts on Bay-Delta water quality. A variety of proceedings and other activities are ongoing with the participation of various State and federal agencies, as well as California's environmental, urban and agricultural communities, in an effort to develop long-term, collectively negotiated solutions to the environmental and water management issues concerning the Bay-Delta. Metropolitan actively participates in these proceedings. Metropolitan cannot predict the outcome of any of the litigation or regulatory processes described below but believes that a materially adverse impact on the operation of State Water Project pumps, could negatively impact Metropolitan's State Water Project deliveries and/or Metropolitan's water reserves.

SWRCB Regulatory Activities and Decisions. The SWRCB is the agency responsible for setting water quality standards and administering water rights throughout California. The SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions that can affect the availability of water to Metropolitan and other users of State Water Project water. These include the Water Quality Control Plan ("WQCP") for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes the water quality objectives and proposed flow regime of the estuary, and water rights decisions, which assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights permits.

Since 2000, SWRCB's Water Rights Decision 1641 ("D-1641") has governed the State Water Project's ability to export water from the Bay-Delta for delivery to Metropolitan and other agencies receiving water from the State Water Project. D-1641 allocated responsibility for meeting flow requirements and salinity and other water quality objectives established earlier by the WQCP.

The WQCP gets reviewed periodically and new standards and allocations of responsibility can be imposed on the State Water Project as a result. The SWRCB's current review and update of the WQCP is being undertaken in phased proceedings. In December 2018, the SWRCB completed Phase 1 of the WQCP proceedings, adopting the plan amendments and environmental documents to support new flow standards for the Lower San Joaquin River tributaries and revised southern Delta salinity objectives. Various stakeholders filed suit against the SWRCB challenging these amendments. As part of Phase 2 proceedings, a framework document for the second plan amendment process, focused on the Sacramento River and its tributaries, Delta eastside tributaries, Delta outflows, and interior Delta flows, was released in July 2018. The framework describes changes that will likely be proposed by the SWRCB through formally proposed amendments and supporting environmental documents unless it approves an alternative. The proposed changes include certain unimpaired flow requirements for the Sacramento River and its salmon-bearing tributaries. The SWRCB has also encouraged all stakeholders to work together to reach one or more voluntary agreements for consideration by the SWRCB that could implement the proposed amendments to the WQCP through a variety of tools, including non-flow habitat restoration for sensitive salmon and smelt species, while seeking to protect water supply reliability. Metropolitan is participating in the Phase 2 proceedings and voluntary agreement negotiations. On March 29, 2022, Metropolitan's General Manager signed a Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions (the "VA MOU"). Other parties include the California Natural Resources Agency ("Natural Resources"), the California Environmental Protection Agency, the California Department of Fish and Wildlife ("CDFW"), the Bureau of Reclamation, the State Water Contractors

association and nine other water users. Under the VA MOU, the parties "seek to take a comprehensive approach to integrate flow and non-flow measures, including habitat restoration, subject to ongoing adaptive management based on a science program" as described in an attached term sheet. The proposed approach provides for implementation over eight years with a potential extension to up to fifteen years.

Bay-Delta Planning Activities. In 2000, several State and federal agencies released the CALFED Bay-Delta Programmatic Record of Decision and Environmental Impact Report/Environmental Impact Statement ("EIR/EIS") that outlined and disclosed the environmental impacts of a 30-year plan to improve the Bay-Delta's ecosystem, water supply reliability, water quality, and levee stability. CALFED is the consortium of State and federal agencies with management and regulatory responsibilities in the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary. The CALFED Record of Decision remains in effect and many of the State, federal, and local projects begun under CALFED continue.

In 2006 multiple State and federal resource agencies, water agencies, and other stakeholder groups entered into a planning agreement for the Bay-Delta Conservation Plan ("BDCP"). The BDCP was originally conceived as a comprehensive conservation strategy for the Bay-Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

The existing State Water Project Delta water conveyance system needs to be improved and modernized to address operational constraints on pumping in the south Delta as well as risks to water supplies and water quality from climate change, earthquakes, and flooding. Operational constraints are largely due to biological opinions and incidental take permits to which the State Water Project is subject that substantially limit the way DWR operates the State Water Project.

In 2015, the State and federal lead agencies proposed an alternative implementation strategy and new alternatives to the BDCP to provide for the protection of water supplies conveyed through the Bay-Delta and the restoration of the ecosystem of the Bay-Delta, termed "California WaterFix" and "California EcoRestore," respectively. Planned water conveyance improvements, California WaterFix, would be implemented by DWR and the Bureau of Reclamation as a stand-alone project with the required habitat restoration limited to that directly related to construction mitigation. Ecosystem improvements and habitat restoration more generally, California EcoRestore, would be undertaken under a more phased approach.

California EcoRestore. As part of California EcoRestore, which was initiated in 2015, the State is pursuing more than 30,000 acres of Delta habitat restoration. Work on several California EcoRestore projects is ongoing. The overall estimated cost to complete the current list of California EcoRestore projects is $750-$950 million, with approximately half expected to be paid from the State Water Project by State Water Contractors and half from other funding sources. Over the first five years (which was 2015-2020), California EcoRestore represents an investment of approximately $500 million for implementation and planning costs. This includes certain amounts being paid by the State Water Contractors, including Metropolitan, for the costs of habitat restoration required to mitigate State and federal water project impacts pursuant to the biological opinions. See also "–Endangered Species Act and Other Environmental Considerations Relating to Water Supply – Endangered Species Act Considerations – State Water Project."

Delta Conveyance. On April 29, 2019, Governor Newsom issued an executive order directing identified State agencies to develop a comprehensive statewide strategy to build a climate-resilient water system, directing the State agencies to inventory and assess the current planning for modernizing conveyance through the Bay-Delta with a new single tunnel project (rather than the previously contemplated two-tunnel California WaterFix). Consistent with the Governor's direction, in January 2020, DWR commenced a formal environmental review process under CEQA for a proposed single tunnel Delta Conveyance Project. The new conveyance facilities being reviewed would include intake structures on the Sacramento River, with a total

capacity of 6,000 cfs, and a single tunnel to convey water to the existing pumping plants in the south Delta. Planning, environmental review and conceptual design work by DWR are expected to be completed in the 2023-2024 timeframe.

On August 20, 2020, the U.S. Army Corps of Engineers, the lead agency for the Delta Conveyance Project under the National Environmental Policy Act ("NEPA"), issued a notice of intent of the development of the environmental impact statement for the Delta Conveyance Project. The draft environmental impact statement is currently anticipated to be available for public review and comment in mid-2022.

Metropolitan's Board has previously authorized Metropolitan's participation in two joint powers agencies relating to a Bay-Delta conveyance project (originally formed in connection with California WaterFix): the Delta Conveyance Design and Construction Authority (the "DCA"), formed by the participating water agencies to actively participate with DWR in the design and construction of the conveyance project in coordination with DWR and under the control and supervision of DWR; and the Delta Conveyance Finance Authority (the "Financing JPA"), formed by the participating water agencies to facilitate financing for the conveyance project. The DCA is providing engineering and design activities to support the DWR's planning and environmental analysis for the potential new Delta Conveyance Project.

In August 2020, the DCA released preliminary cost information for the proposed Delta Conveyance Project based on an early cost assessment prepared by the DCA. The DCA's early assessment is based on preliminary engineering, not a full conceptual engineering report, and includes project costs for construction, management, oversight, mitigation, planning, soft costs, and contingencies. Based on these assumptions, the DCA's early assessment estimated a project cost of approximately $15.9 billion in 2020 non-discounted dollars, which includes a 44 percent overall contingency applied to the preliminary construction costs.

Approximately $340.7 million of investment is estimated to be needed over four years (2021 through 2024) to fund planning and pre-construction costs for the proposed Delta Conveyance Project. At its December 8, 2020 Board meeting, Metropolitan's Board authorized the General Manager to execute a funding agreement with DWR and commit funding for a Metropolitan participation level of 47.2 percent of such costs of preliminary design, environmental planning and other pre-construction activities to assist in the environmental process for the proposed Delta Conveyance Project. Metropolitan's 47.2 percent share amounts to an estimated funding commitment of $160.8 million over the four years 2021 through 2024. Eighteen other State Water Contractors also have approved funding a share of the planning and pre-construction costs. Like prior agreements for BDCP and California WaterFix, the funding agreement provides that funds would be reimbursed to Metropolitan if the project is approved and when the first bonds, if any, for the project are issued. In connection with approving the funding agreement, at its December 2020 Board meeting, the Board also authorized the General Manager to execute an amendment to the DCA joint exercise of powers agreement. The amendment was developed to address changes in the anticipated participation structure for the proposed Delta Conveyance Project from that contemplated for California WaterFix.

Metropolitan's December 8, 2020 action to approve fund planning and pre-construction costs does not commit Metropolitan to participate in the Delta Conveyance Project. Any final decision to commit to the project and incur final design and construction costs would require Board approval following completion of the environmental review for the proposed Delta Conveyance Project, which is not expected to occur until 2024 or later.

On August 6, 2020, DWR adopted certain resolutions to authorize the issuance of bonds to finance costs of the Delta Conveyance Project environmental review, planning, design and, if and when such a project is approved, the costs of acquisition and construction thereof. The same day, it filed a complaint in Sacramento County Superior Court seeking to validate its authority to issue the bonds. Fourteen answers have been filed in the validation action, and one related case was filed in the same court alleging that DWR violated CEQA by adopting the bond resolutions before completing environmental review of the Delta Conveyance Project. DWR and several project opponents filed cross-motions for summary judgment on the CEQA affirmative defenses

and related CEQA lawsuit, and in December 2021, the trial court granted DWR's motions and denied opponents' motions, eliminating the CEQA affirmative defenses. Because the trial court judge was elevated to the Court of Appeal, the parties have requested reassignment to a new trial court judge to move the validation case forward to trial. Additional lawsuits could be filed in the future with respect to any new Bay-Delta conveyance project and may impact the anticipated timing and costs of any proposed new single tunnel Delta Conveyance Project.

Colorado River Aqueduct

Background

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River and its tributaries is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (collectively, the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has the right to delivery of 1.5 million acre-feet of Colorado River water annually except as provided under shortage conditions described in Treaty Minute 323. The United States and Mexico agreed to conditions for reduced deliveries of Colorado River water to Mexico in Treaty Minute 323, adopted in 2017. Treaty Minute 323 established the rules under which Mexico agreed to take shortages and create reservoir storage in Lake Mead. Those conditions are in parity with the requirements placed on the Lower Basin States (defined below) in the Lower Basin Drought Contingency Plan (described under "– Colorado River Operations: Surplus and Storage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*"). Mexico can also schedule delivery of an additional 200,000 acre-feet of Colorado River water per year if water is available in excess of the requirements in the United States and the 1.5 million acre-feet allotted to Mexico.

Construction of the CRA, which is owned and operated by Metropolitan, was undertaken by Metropolitan to provide for the transportation of its Colorado River water entitlement to its service area. The CRA originates at Lake Havasu on the Colorado River and extends approximately 242 miles through a series of pump stations and reservoirs to its terminus at Lake Mathews in Riverside County. Up to 1.25 million acre-feet of water per year may be conveyed through the CRA to Metropolitan's member agencies, subject to the availability of Colorado River water for delivery to Metropolitan as described below. Metropolitan first delivered CRA water to its member agencies in 1941.

Colorado River Water Apportionment and Seven-Party Agreement

Pursuant to the federal Boulder Canyon Project Act of 1928, California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada (the "Lower Basin States"). Under an agreement entered into in 1931 among the California entities that expected to receive a portion of California's apportionment of Colorado River water (the "Seven-Party Agreement") and which has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 acre-feet per year. This is the last priority within California's basic apportionment. In addition, Metropolitan holds the fifth priority right to 662,000 acre-feet of water, which is in excess of California's basic apportionment. Until 2003, Metropolitan had been able to take full advantage of its fifth priority right as a result of the availability of surplus water and water apportioned to Arizona and Nevada that was not needed by those states. However, during the 1990s Arizona and Nevada increased their use of water from the Colorado River, and by 2002 no unused apportionment was available for California. As a result, California has limited its annual use to 4.4 million acre-feet since 2003, not including supplies made available under water supply programs such as Intentionally Created Surplus ("ICS") and certain conservation and storage agreements. In addition, a severe drought in the Colorado River Basin from 2000-2004 reduced storage in system reservoirs, ending the availability of surplus deliveries to Metropolitan. Prior to 2003, Metropolitan could divert over 1.25 million acre-feet in any year. Since 2003, Metropolitan's net diversions of Colorado River water have

ranged from a low of 537,607 acre-feet in 2019 to a high of approximately 1,179,000 acre-feet in 2015. Preliminary average annual net diversions for 2012 through 2021 were 909,585 acre-feet, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. See "– Quantification Settlement Agreement" and "– Colorado River Operations: Surplus and Shortage Guidelines." See also "–Current Water Conditions and Drought Response Actions" and "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct Agreements and Programs." In 2021, Metropolitan's preliminary total available Colorado River supply was just over one million acre-feet. A portion of the available supply was supply from Metropolitan's Lake Mead ICS supplies. See also "–Storage Capacity and Water in Storage."

The following table sets forth the existing priorities of the California users of Colorado River water established under the 1931 Seven-Party Agreement.

PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT[(1)]

Priority	Description	Acre-Feet Annually
1	Palo Verde Irrigation District gross area of 104,500 acres of land in the Palo Verde Valley	3,850,000
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	
3(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys[(2)] to be served by All-American Canal	
3(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain	550,000
	SUBTOTAL	4,400,000
5(a)	Metropolitan Water District of Southern California for use on the coastal plain	550,000
5(b)	Metropolitan Water District of Southern California for use on the coastal plain[(3)]	112,000
6(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys to be served by the All-American Canal	300,000
6(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
	TOTAL	5,362,000
7	Agricultural use in the Colorado River Basin in California	Remaining surplus

Source: Metropolitan.

(1) Agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, Metropolitan, the City of Los Angeles, the City of San Diego and the County of San Diego. These priorities were memorialized in the agencies' respective water delivery contracts with the Secretary of the Interior.

(2) The Coachella Valley Water District serves Coachella Valley.

(3) In 1946, the City of San Diego, the San Diego County Water Authority, Metropolitan and the Secretary of the Interior entered into a contract that merged and added the City and County of San Diego's rights to storage and delivery of Colorado River water to the rights of Metropolitan.

Quantification Settlement Agreement

The Quantification Settlement Agreement ("QSA"), executed by the Coachella Valley Water District ("CVWD"), Imperial Irrigation District ("IID"), Metropolitan, and others in October 2003, establishes Colorado River water use limits for IID and CVWD, and provides for specific acquisitions of conserved water and water supply arrangements. The QSA and related agreements provide a framework for Metropolitan to enter into other cooperative Colorado River supply programs and set aside several disputes among California's Colorado River water agencies.

Specific programs under the QSA and related agreements include lining portions of the All-American and Coachella Canals, which were completed in 2009 and conserve over 98,000 acre-feet annually. Metropolitan receives this water and delivers over 77,000 acre-feet of exchange water annually to the San Diego County Water Authority ("SDCWA"), and provides 16,000 acre-feet of water annually by exchange to the United States for use by the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido, and the Vista Irrigation District. Water became available for exchange with the United States following a May 17, 2017 notice from the Federal Energy Regulatory Commission ("FERC") satisfying the last requirement of Section 104 of the San Luis Rey Indian Water Rights Settlement Act (Title I of Public Law 100-675, as amended). The QSA and related agreements also authorized the transfer of conserved water annually by IID to SDCWA (up to a maximum amount in 2021 of 205,000 acre-feet, then stabilizing to 200,000 acre-feet per year). Metropolitan also receives this water and delivers an equal amount of exchange water annually to SDCWA. See description under "–Metropolitan and San Diego County Water Authority Exchange Agreement" below; see also "METROPOLITAN REVENUES–Principal Customers" in this Appendix A. Also included under the QSA related agreements is a delivery and exchange agreement between Metropolitan and CVWD that provides for Metropolitan, when requested, to deliver annually up to 35,000 acre-feet of Metropolitan's State Water Project contractual water to CVWD by exchange with Metropolitan's available Colorado River supplies.

Metropolitan and San Diego County Water Authority Exchange Agreement

No facilities exist to deliver conserved water acquired by SDCWA from IID and water allocated to SDCWA that has been conserved as a result of the lining of the All-American and Coachella Canals. See "–Quantification Settlement Agreement." Accordingly, in 2003, Metropolitan and SDCWA entered into an exchange agreement (the "Exchange Agreement"), pursuant to which SDCWA makes available to Metropolitan at its intake at Lake Havasu on the Colorado River the conserved Colorado River water SDCWA receives under the QSA related agreements. Metropolitan delivers an equal volume of water from its own sources of supply through its delivery system to SDCWA. The Exchange Agreement limits the amount of water that Metropolitan delivers to 277,700 acre-feet per year, except that an additional 5,000 acre-feet was exchanged in 2021 and an additional 2,500 acre-feet will be exchanged in 2022. In consideration for the exchange of the conserved water made available to Metropolitan by SDCWA with the exchange water delivered by Metropolitan, SDCWA pays the agreement price. The price payable by SDCWA is calculated using the charges set by Metropolitan's Board from time to time to be paid by its member agencies for the conveyance of water through Metropolitan's facilities. See "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A for a description of Metropolitan's charges for the conveyance of water through Metropolitan's facilities and litigation in which SDCWA is challenging such charges. The term of the Exchange Agreement, as it relates to conserved water transferred by IID to SDCWA, extends through 2047, and as it relates to water allocated to SDCWA that has been conserved as a result of the lining of the All-American and Coachella Canals, extends through 2112; subject, in each case, to the right of SDCWA, upon a minimum of five years' advance written notice to Metropolitan, to permanently reduce the aggregate quantity of conserved water made available to Metropolitan under the Exchange Agreement to the extent SDCWA decides continually and regularly to transport such conserved water to SDCWA through alternative facilities (which do not presently exist). In 2021, preliminary estimates of water delivered to Metropolitan by SDCWA for exchange was approximately 282,700 acre-feet, consisting of 205,000 acre-feet

of IID conservation plus 77,700 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.

Colorado River Operations: Surplus and Shortage Guidelines

General. The Secretary of the Interior is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. Each year, the Secretary of the Interior is required to declare the Colorado River water supply availability conditions for the Lower Basin States in terms of "normal," "surplus" or "shortage" and has adopted operations criteria in the form of guidelines to determine the availability of surplus or potential shortage allocations among the Lower Basin States and reservoir operations for such conditions.

Interim Surplus Guidelines. In January 2001, the Secretary of the Interior adopted guidelines (the "Interim Surplus Guidelines"), initially for use through 2016, in determining the availability and quantity of surplus Colorado River water available for use in California, Arizona and Nevada. The Interim Surplus Guidelines were amended in 2007 and now extend through 2026. The purpose of the Interim Surplus Guidelines was to provide mainstream users of Colorado River water, particularly those in California and Nevada who had been utilizing surplus flows, a greater degree of predictability with respect to the availability and quantity of surplus water. Under the Interim Surplus Guidelines, Metropolitan initially expected to divert up to 1.25 million acre-feet of Colorado River water annually under foreseeable runoff and reservoir storage scenarios from 2004 through 2016. However, as described above, an extended drought in the Colorado River Basin reduced these initial expectations, and Metropolitan has not received any surplus water since 2002 and does not expect to receive any surplus water in the foreseeable future.

Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead. In May 2005, the Secretary of the Interior directed the Bureau of Reclamation to develop additional strategies for improving coordinated management of the reservoirs of the Colorado River system. In November 2007, the Bureau of Reclamation issued a Final EIS regarding new federal guidelines concerning the operation of the Colorado River system reservoirs, particularly during drought and low reservoir conditions. These guidelines provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage and surplus conditions in the Lower Basin, provide a mechanism for the storage and delivery of conserved system and non-system water in Lake Mead, and extend the Interim Surplus Guidelines through 2026 (as noted above). The Secretary of the Interior issued the final guidelines through a Record of Decision signed in December 2007. The Record of Decision and accompanying agreement among the Colorado River Basin States protect reservoir levels by reducing deliveries during low inflow periods, encouraging agencies to develop conservation programs and allowing the Colorado River Basin States to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions. Consistent with these legal protections, under the guidelines, Arizona and Nevada are first subject to the initial annual shortages identified by the Secretary in a shared amount of up to 500,000 acre-feet.

The guidelines also created the ICS program, which allows water contractors in the Lower Basin States to store conserved water in Lake Mead. Under this program, ICS water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) is eligible for storage in Lake Mead by Metropolitan. ICS can be created through 2026 and delivered through 2036. See the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage." Under the guidelines and the subsequent Colorado River Drought Contingency Plan Authorization Act, California can create and deliver up to 400,000 acre-feet of extraordinary conservation ICS ("EC ICS") annually and accumulate up to 1.5 million acre-feet of EC ICS in Lake Mead. In December 2007, California contractors for Colorado River water executed the California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus (the "California ICS Agreement"), which established terms and conditions for the creation, accumulation, and delivery of EC ICS by California contractors receiving Colorado River water. Under the California ICS Agreement, the State's EC ICS creation,

accumulation, and delivery limits provided to California under the 2007 Interim Shortage Guidelines are apportioned between IID and Metropolitan. No other California contractors were permitted to create or accumulate ICS. Under the terms of the agreement, IID is allowed to store up to 25,000 acre-feet per year of EC ICS in Lake Mead with a cumulative limit of 50,000 acre-feet, in addition to any acquired Binational ICS water (water that has been conserved through conservation projects in Mexico). Metropolitan is permitted to use the remaining available ICS creation, delivery, and accumulation limits provided to California.

The Secretary of the Interior delivers the stored ICS water to Metropolitan in accordance with the terms of December 13, 2007, January 6, 2010, and November 20, 2012 Delivery Agreements between the United States and Metropolitan. As of January 1, 2022, Metropolitan had an estimated 1,243,000 acre-feet in its ICS accounts. These ICS accounts include water conserved by fallowing in the Palo Verde Valley, projects implemented with IID in its service area, groundwater desalination, the Warren H. Brock Reservoir Project, and international agreements that converted water conserved by Mexico to the United States.

Colorado River Drought Contingency Plans. Since the 2007 Lower Basin shortage guidelines were issued for the coordinated operations of Lake Powell and Lake Mead, the Colorado River has continued to experience drought conditions. The seven Colorado River Basin States, the U.S. Department of Interior through the Bureau of Reclamation, and water users in the Colorado River Basin, including Metropolitan, began developing Drought Contingency Plans ("DCPs") to reduce the risk of Lake Powell and Lake Mead declining below critical elevations through 2026.

In April 2019, the President of the United States signed the Colorado River Drought Contingency Plan Authorization Act (referenced above), directing the Secretary of the Interior to sign and implement four DCP agreements related to the Upper and Lower Basin DCPs without delay. The agreements were executed and the Upper and Lower Basin DCPs became effective on May 20, 2019. The Lower Basin Drought Contingency Plan Agreement requires California, Arizona and Nevada to store defined volumes of water in Lake Mead at specified lake levels. California would begin making contributions if Lake Mead's elevation is projected to be 1,045 feet above sea level or below on January 1. Lake Mead elevation in January 2022 was 1,066 feet. Depending on the lake's elevation, California's contributions would range from 200,000 to 350,000 acre-feet a year ("DCP Contributions"). Pursuant to intrastate implementation agreements and a settlement agreement with IID, Metropolitan will be responsible for 90 percent of California's DCP Contributions under the Lower Basin DCP. CVWD will be responsible for 7 percent of California's required DCP Contributions. While IID is not a party to the DCP, if Metropolitan is required to make a DCP contribution, IID will assist Metropolitan in making DCP contributions by contributing the lesser of either: (a) three percent of California's DCP contribution or (b) the amount of water IID has stored with Metropolitan. The terms of the settlement agreement with IID referenced above and the mechanism by which IID will contribute to California's DCP Contributions is described in more detail under "–Water Transfer, Storage and Exchange Programs –Colorado River Aqueduct Agreements and Programs – *California ICS Agreement Intrastate Storage Provisions"* in this Appendix A.

Implementation of the Lower Basin DCP enhances Metropolitan's ability to store water in Lake Mead and ensures that water in storage can be delivered later. The Lower Basin DCP increases the total volume of water that California may store in Lake Mead by 200,000 acre-feet, for a total of 1.7 million acre-feet, which Metropolitan will have the right to use. Both EC ICS and Binational ICS count towards the total volume of water that California may store in Lake Mead. Water stored as ICS will be available for delivery as long as Lake Mead's elevation remains above 1,025 feet. Previously, that water would likely have become inaccessible below a Lake Mead elevation of 1,075 feet. DCP Contributions may be made through conversion of existing ICS. These types of DCP Contributions become DCP ICS. DCP Contributions may also be made by leaving water in Lake Mead that there was a legal right to have delivered. This type of DCP Contribution becomes system water and may not be recovered. Rules are set for delivery of DCP ICS through 2026 and between 2027-2057.

The Lower Basin DCP will be effective through 2026. Before the DCP and 2007 Lower Basin shortage guidelines terminate in 2026, the U.S. Department of Interior through the Bureau of Reclamation, the seven Colorado River Basin States, and water users in the Colorado River Basin, including Metropolitan, are expected to develop new shortage guidelines for the management and operation of the Colorado River. The Bureau of Reclamation plans to announce in the Federal Register the official beginning of work on environmental documents for the new guidelines in January 2023.

Lake Mead 500+ Plan. In December 2021, Metropolitan, the U.S. Department of Interior, the Arizona Department of Water Resources, the Central Arizona Project, and the Southern Nevada Water Authority ("SNWA") executed a memorandum of understanding for an agreement to invest up to $200 million in projects over the next two years to keep Lake Mead from dropping to critically low levels. The agreement, known as the "500+ Plan," aims to add 500,000 acre-feet of additional water to Lake Mead in both 2022 and 2023 by facilitating actions to conserve water across the Lower Colorado River Basin. The additional water, enough water to serve about 1.5 million households per year, would add about 16 feet total to the reservoir's level. Under the memorandum of understanding, the Arizona Department of Water Resources commits to provide up to $40 million to the initiative over two years, with Metropolitan, the Central Arizona Project and SNWA each agreeing to contribute up to $20 million. The federal government plans to match those commitments, providing an additional $100 million. Some of the specific conservation actions and programs that will be implemented through the 500+ Plan have already begun, while others are still being identified. The memorandum of understanding includes conservation efforts in both urban and agricultural communities, such as funding crop fallowing on farms to save water, including the recent approval of a short-term agricultural land fallowing program in California, or urban conservation to reduce diversions from Lake Mead.

Related Litigation–Navajo Nation Suit. The Navajo Nation filed litigation against the Department of the Interior, specifically the Bureau of Reclamation and the Bureau of Indian Affairs, in 2003, alleging that the Bureau of Reclamation has failed to determine the extent and quantity of the water rights of the Navajo Nation in the Colorado River and that the Bureau of Indian Affairs has failed to otherwise protect the interests of the Navajo Nation. The complaint challenges the adequacy of the environmental review for the Interim Surplus Guidelines (described under " –Colorado River Operations: Surplus and Shortage Guidelines – *Interim Surplus Guidelines*") and seeks to prohibit the Department of the Interior from allocating any "surplus" water until such time as a determination of the rights of the Navajo Nation is completed. Metropolitan and other California water agencies filed motions to intervene in this action. In October 2004 the court granted the motions to intervene and stayed the litigation to allow negotiations among the Navajo Nation, federal defendants, Central Arizona Water Conservation District ("CAWCD"), State of Arizona and Arizona Department of Water Resources. After years of negotiations, a tentative settlement was proposed in 2012 that would provide the Navajo Nation with specified rights to water from the Little Colorado River and groundwater basins under the reservation, along with federal funding for the development of water supply systems on the tribe's reservation. The proposed agreement was rejected by tribal councils for both the Navajo and the Hopi, who were seeking to intervene. In June 2013, the Navajo Nation amended its complaint and added a legal challenge to the Lower Basin Shortage Guidelines adopted by the Secretary of the Interior in 2007 that allow Metropolitan and other Colorado River water users to store water in Lake Mead (described under "– Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*"). Metropolitan has used these new guidelines to store over 1,000,000 acre-feet of water in Lake Mead, a portion of which has been delivered, and the remainder of which may be delivered at Metropolitan's request in future years.

Following years of procedural challenges and appeals, in April 2021, the Ninth Circuit held that the Navajo Nation's claim for breach of trust against the United States was not barred and its legal challenges could continue. Appeals to the U.S. Supreme Court were due May 18, 2022. Certain intervenors, including Metropolitan, filed an appeal on May 17, 2022. The Department of the Interior requested an extension to July 25, 2022 to file any appeal. Metropolitan is unable to assess at this time the likely outcome of this litigation or any future claims, or their potential effect on Colorado River water supplies.

Endangered Species Act and Other Environmental Considerations Relating to Water Supply

Endangered Species Act Considerations - State Water Project

General. DWR has altered the operations of the State Water Project to accommodate species of fish listed as threatened or endangered under the federal Endangered Species Act ("ESA") and/or California ESA.

The federal ESA requires that before any federal agency authorizes, funds, or carries out an action that may affect a listed species or designated critical habitat, it must consult with the appropriate federal fishery agency (either the National Marine Fisheries Service ("NMFS") or the U.S. Fish and Wildlife Service ("USFWS") depending on the species) to determine whether the action would jeopardize the continued existence of any threatened or endangered species, or adversely modify habitat critical to the species' needs. The result of the consultation is known as a "biological opinion." In a biological opinion, a federal fishery agency determines whether the action would cause jeopardy to a threatened or endangered species or adverse modification to critical habitat; and if jeopardy or adverse modification is found, recommends reasonable and prudent alternatives that would allow the action to proceed without causing jeopardy or adverse modification. If no jeopardy or adverse modification is found, the fish agency issues a "no jeopardy opinion." The biological opinion also includes an "incidental take statement." The incidental take statement allows the action to go forward even though it will result in some level of "take," including harming or killing some members of the species, incidental to the agency action, provided that the agency action does not jeopardize the continued existence of any threatened or endangered species and complies with reasonable mitigation and minimization measures recommended by the federal fishery agency or as incorporated into the project description.

The California ESA generally requires an incidental take permit or consistency determination for any action that may cause take of a State-listed species of fish or wildlife. To issue an incidental take permit or consistency determination, CDFW must determine that the impacts of the authorized take will be minimized and fully mitigated and will not cause jeopardy.

Federal ESA--Biological Opinions. On August 2, 2016, DWR and the Bureau of Reclamation requested that USFWS and NMFS reinitiate federal ESA consultation on the coordinated operations of the State Water Project and the federal Central Valley Project to update them with the latest best available science and lessons learned operating under the prior 2008 and 2009 biological opinions. In January 2019, the Bureau of Reclamation submitted the initial biological assessment to USFWS and NMFS. The biological assessment contains a description of the Bureau of Reclamation's and DWR's proposed long-term coordinated operations plan (the "2019 Long-Term Operations Plan"). On October 22, 2019, USFWS and NMFS issued new federal biological opinions (the "2019 biological opinions") that provide incidental take coverage for the 2019 Long-Term Operations Plan. On February 18, 2020, the Bureau of Reclamation signed a Record of Decision, pursuant to NEPA, completing its environmental review and adopting the 2019 Long-Term Operations Plan.

The 2019 Long-Term Operations Plan incorporates and updates many of the requirements contained in the previous 2008 and 2009 biological opinions. It also includes over $1 billion over a ten-year period in costs for conservation, monitoring and new science, some of which is in the form of commitments carried forward from the previous biological opinions. Those costs are shared by the State Water Project and the federal Central Valley Project. The prior 2008 and 2009 biological opinions resulted in an estimated reduction in State Water Project deliveries of 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years as compared to the previous baseline. The 2019 Long-Term Operations Plan and 2019 biological opinions are expected to increase State Water Project deliveries by an annual average of 200,000 acre-feet as compared to the previous biological opinions.

On January 20, 2021, President Biden issued an Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (the "President's Executive Order on Public Health and the Environment") directing all executive departments and agencies to immediately review, and, as appropriate and consistent with applicable law, take action to address the promulgation of federal regulations

and other actions during the last four years for consistency with the new administration's policies. Among numerous actions identified for review, the U.S. Department of Commerce and U.S. Department of Interior heads were directed to review the 2019 biological opinions. On September 30, 2021, Bureau of Reclamation Regional Director Ernest Conant sent a letter to the USFWS and NMFS re-initiating consultation on the long-term operations of the state and federal water projects. The consultation process requires the Bureau of Reclamation and DWR to develop a biological assessment describing the proposed operating criteria that would be analyzed under the biological permitting process and perform an effects analysis. The NMFS and USFWS would then review the assessment and determine what the operating requirements might be under a biological opinion if the 2019 biological opinion is modified in any way. On February 28, 2022, the Notice of Intent was published in the Federal Register officially starting the federal ESA and NEPA process. At this point, it is unclear what changes to the 2019 biological opinions will be made and their possible effect on Metropolitan.

Federal ESA–Litigation. On December 2, 2019, a group of non-governmental organizations, including commercial fishing groups and the Natural Resources Defense Council (the "NGOs"), sued USFWS and NMFS, alleging the 2019 biological opinions were arbitrary and capricious, later amending the lawsuit to include claims under the federal ESA and NEPA related to decisions made by the Bureau of Reclamation. On February 20, 2020, Natural Resources, the California Environmental Protection Agency, and the California Attorney General (collectively, the "State Petitioners") sued the federal agencies, making similar allegations. The State Water Contractors intervened in both cases to defend the 2019 biological opinions. The NGOs and the State Petitioners filed a preliminary injunction seeking a court order imposing interim operations consistent with the prior 2008 and 2009 biological opinions pending rulings on the merits of plaintiffs' challenges to the two 2019 biological opinions. On May 11, 2020, the court granted, in part, the motions for preliminary injunction, thereby requiring the Central Valley Project to operate to one of the reasonable and prudent alternatives (referred to as the "inflow-to-export ratio") in the 2009 biological opinion through May 31, 2020. As noted above, on September 30, 2021, the federal defendants formally re-initiated consultation on the challenged biological opinions. In October 2021, the federal defendants and state plaintiffs issued a draft Interim Operations Plan ("IOP") that would govern Central Valley Project-State Water Project coordinated operations through the 2021-2022 water year ending on September 30, 2022. In November 2021, the federal defendants moved for a remand of the biological opinions without vacating them, requested a stay through September 30, 2022, and requested that the court impose the IOP as equitable relief. The State Petitioners moved to have the IOP imposed as a preliminary injunction, while the NGOs moved for a preliminary injunction seeking an order imposing greater operational restrictions than under the IOP. On March 11, 2022, the court denied the State Petitioners' and NGO plaintiffs' motions for preliminary injunctive relief and granted the federal defendants' request for a remand without vacating the biological opinions, equitable relief imposing the IOP and a stay of the litigation through September 30, 2022. USFWS and NMFS have produced their respective administrative records. Once the administrative records are finalized, the parties anticipate stipulating to a briefing schedule to resolve the merits of the cases. However, considering the re-initiation of consultation and stay, the cases may be further stayed to allow completion of the reinitiated consultation and issuance of new or amended biological opinions without reaching the merits of the claims. Metropolitan is unable to predict the outcome of any litigation relating to the federal 2019 biological opinions or any potential effect on Metropolitan's State Water Project water supplies.

California ESA–DWR Permit Litigation. As described above, operations of the State Water Project require both federal ESA and California ESA authorizations. DWR described and analyzed its proposed State Water Project long-term operations plan for purposes of obtaining a new California ESA permit in its November 2019 Draft EIR under CEQA. Its 2019 Draft EIR proposed essentially the same operations plan as for the federal 2019 biological opinions, with the addition of operations for the State-only listed species, Longfin smelt. In December 2019, DWR submitted its application for an incidental take permit under the California ESA to CDFW, with a modified State operation plan that added new outflow and environmental commitments. On March 27, 2020, DWR released its final EIR and Notice of Determination, describing and adopting a State operation plan with additional operational restrictions and additional conservation

commitments. On March 31, 2020, CDFW issued an incidental take permit for the State Water Project that included further operational restrictions and outflow. As issued, the incidental take permit reduces State Water Project deliveries by more than 200,000 acre-feet on average annually and adds another $218 million over a ten-year period in environmental commitments for the State Water Project.

On April 28, 2020, Metropolitan and Mojave Water Agency ("Mojave") jointly sued CDFW, DWR and Natural Resources, alleging that the new California ESA permit and final EIR violate CEQA and the California ESA. Metropolitan and Mojave also allege that DWR breached the State Water Contract and the implied covenant of good faith and fair dealing by, among other things, accepting an incidental take permit containing mitigation requirements in excess of that required by law. Subsequently, two State Water Contractors and a Metropolitan member agency joined with Metropolitan and Mojave in a first amended complaint. Various other water agencies also filed CEQA and CESA actions, or subsequently joined in a first amended complaint in which the individual water contractors allege causes of action for breach of contract and the implied covenant of good faith and fair dealing. In addition, another State Water Contractor, the SBVMWD, filed a complaint alleging violations of CEQA and CESA, as well as breach of contract and the implied covenant of good faith and fair dealing, unconstitutional takings, and anticipatory repudiation of contract. Several federal Central Valley Project water contractors also filed a CEQA challenge. Four other lawsuits have been filed by certain commercial fishing groups and an American Indian tribe, several environmental groups, and two in-Delta water agencies challenging the final EIR as inadequate under CEQA and alleging violations of the Delta Reform Act, public trust doctrine and, in one of the cases, certain water right statutes.

All eight cases have been coordinated in Sacramento County Superior Court. On May 7, 2021 the coordination trial judge ordered the CEQA and CESA causes of action as well as certain other administrative record-based claims alleged by petitioners in several other cases bifurcated from the State Water Contractors' respective contractual and unconstitutional takings causes of action, with the CEQA and CESA causes of action to be tried first. The court also ordered that a discovery stay remain in place pending final resolution of the CEQA, CESA and other administrative record claims. Metropolitan is unable to assess at this time the likely outcome of litigation relating to the California ESA permit, including any future litigation or any future claims that may be filed, or any potential effect on Metropolitan's State Water Project water supplies.

Endangered Species Act Considerations - Colorado River

Federal and state environmental laws protecting fish species and other wildlife species have the potential to affect Colorado River operations. A number of species that are on either "endangered" or "threatened" lists under the ESAs are present in the area of the Lower Colorado River, including among others, the bonytail chub, razorback sucker, southwestern willow flycatcher and Yuma clapper rail. To address this issue, a broad-based state/federal/tribal/private regional partnership that includes water, hydroelectric power and wildlife management agencies in Arizona, California and Nevada have developed a multi-species conservation program for the main stem of the Lower Colorado River (the Lower Colorado River Multi-Species Conservation Program or "MSCP"). The MSCP allows Metropolitan to obtain federal and state permits for any incidental take of protected species resulting from current and future water and power operations of its Colorado River facilities and to minimize any uncertainty from additional listings of endangered species. The MSCP also covers operations of federal dams and power plants on the river that deliver water and hydroelectric power for use by Metropolitan and other agencies. The MSCP covers 27 species and habitat in the Lower Colorado River from Lake Mead to the Mexican border for a term of 50 years (commencing in 2005). Over the 50-year term of the program, the total cost to Metropolitan is estimated to be about $88.5 million (in 2003 dollars), with annual costs ranging between $0.8 million and $4.7 million (in 2003 dollars).

Invasive Species - Mussel Control Programs

Zebra and quagga mussels are established in many regions of the United States. Mussels can reproduce quickly and, if left unmanaged, can reduce flows by clogging intakes and raw water conveyance systems, alter or destroy fish habitats, and affect lakes and beaches. Mussel management activities may require changes in water delivery protocols to reduce risks of spreading mussel populations and increase operation and maintenance costs.

In January 2007, quagga mussels were discovered in Lake Mead. All pipelines and facilities that transport raw Colorado River water are considered to be infested with quagga mussels. Metropolitan has a quagga mussel control plan, approved by the CDFW to address the presence of mussels in the CRA system and limit further spread of mussels. Year-round monitoring for mussel larvae is conducted at various locations in the CRA system and at select non-infested areas of Metropolitan's system and some locations in the State Water Project. Shutdown inspections have demonstrated that control activities effectively limit mussel infestation in the CRA and prevent the further spread of mussels to other bodies of water and water systems. Metropolitan's costs for controlling quagga mussels in the CRA system have been approximately $5 million per year.

Established mussel populations are located within ten miles of the State Water Project. A limited number of mussels have also been detected in State Water Project supplies in 2016 and 2021 but there is currently no evidence of established mussel populations, nor have they impacted Metropolitan's State Water Project deliveries. To prevent the introduction and further spread of mussels into the State Water Project, the Bay-Delta, and other uninfested bodies of water and water systems, DWR has also developed quagga mussel control plans.

Water Transfer, Storage and Exchange Programs

General

To supplement its State Water Project and Colorado River water supplies, Metropolitan has developed and actively manages a portfolio of water supply programs, including water transfer, storage and exchange agreements, the supplies created by which are conveyed through the California Aqueduct of the State Water Project, utilizing Metropolitan's rights under its State Water Contract to use the portion of the State Water Project conveyance system necessary to deliver water to it, or through available CRA capacity. Consistent with its long-term planning efforts, Metropolitan will continue to pursue voluntary water transfer and exchange programs with State, federal, public and private water districts, and individuals to help mitigate supply/demand imbalances and provide additional dry-year supply sources. A summary description of certain of Metropolitan's supply programs is set forth below. In addition to the arrangements described below, Metropolitan is entitled to storage and access to stored water in connection with various other storage programs and facilities. See "–Colorado River Aqueduct" above, as well as the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

State Water Project Agreements and Programs

In addition to the basic State Water Project contract provisions, Metropolitan has other contract rights that accrue to the overall value of the State Water Project. Because each Contractor is paying for physical facilities, they also have the right to use the facilities to move water supplies associated with agreements, water transfers and water exchanges. Metropolitan has entered into agreements and exchanges that provide additional water supplies.

Existing and potential water transfers and exchanges are an important element for improving the water supply reliability within Metropolitan's service area and accomplishing the reliability goal set by Metropolitan's Board. Under voluntary water transfers and exchanges with agricultural users, agricultural communities may periodically sell or conserve a portion of their agricultural water supply to make it available

to support the State's urban areas. The portfolio of supplemental supplies that Metropolitan has developed to be conveyed through the California Aqueduct extend from north of the Bay-Delta to Southern California. Certain of these arrangements are described below.

Castaic Lake and Lake Perris. Metropolitan has contractual rights to withdraw up to 65,000 acre-feet of water in Lake Perris (East Branch terminal reservoir) and 153,940 acre-feet of water in Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing State Water Project deliveries to maximize yield from the project. Any water used must be returned to the State Water Project within five years or it is deducted from allocated amounts in the sixth year.

Metropolitan Article 56 Carryover. Metropolitan has the right to store its allocated contract amount for delivery in subsequent years. Metropolitan can store between 100,000 and 200,000 acre-feet, depending on the final water supply allocation percentage.

Yuba River Accord. Metropolitan entered into an agreement with DWR in December 2007 to purchase a portion of the water released by the Yuba County Water Agency ("YCWA"). YCWA was involved in a SWRCB proceeding in which it was required to increase Yuba River fishery flows. Within the framework of agreements known as the Yuba River Accord, DWR entered into an agreement for the long-term purchase of water from YCWA. The agreement permits YCWA to transfer additional supplies at its discretion. Metropolitan, other State Water Contractors, and the San Luis & Delta-Mendota Water Authority entered into separate agreements with DWR for the purchase of portions of the water made available. Metropolitan's agreement allows Metropolitan to purchase, in dry years through 2025, available water supplies which have ranged from approximately 6,555 acre-feet to 67,068 acre-feet per year.

Metropolitan has also developed other groundwater storage and exchange programs, certain of which are described below. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Quality and Treatment" in this Appendix A for information regarding certain water quality regulations and developments that impact or may impact some of Metropolitan's groundwater storage programs.

Arvin-Edison/Metropolitan Water Management Program. In December 1997, Metropolitan entered into an agreement with the Arvin-Edison Water Storage District ("Arvin-Edison"), an irrigation agency located southeast of Bakersfield, California. Under the program, Arvin-Edison stores water on behalf of Metropolitan. In January 2008, Metropolitan and Arvin-Edison amended the agreement to enhance the program's capabilities and to increase the delivery of water to the California Aqueduct. To facilitate the program, new wells, spreading basins and a return conveyance facility connecting Arvin-Edison's existing facilities to the California Aqueduct have been constructed. The agreement also provides Metropolitan priority use of Arvin-Edison's facilities to convey high-quality water available on the east side of the San Joaquin Valley to the California Aqueduct. Up to 350,000 acre-feet of Metropolitan's water may be stored and Arvin-Edison is obligated to return up to 75,000 acre-feet of stored water in any year to Metropolitan, upon request. The agreement will terminate in 2035 unless extended. Metropolitan's estimated storage account balance under the Arvin-Edison/Metropolitan Water Management Program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below. As a result of detecting 1,2,3-trichloropropane ("TCP") in Arvin-Edison wells, Metropolitan has suspended the return of groundwater from the program until the water quality concerns can be further evaluated and managed. Instead, Metropolitan has requested that Arvin-Edison provide only surface water that can satisfy DWR's standards for direct pump-back into the California Aqueduct, or alternative methods satisfactory to Metropolitan, in order to meet both the DWR pump-in requirements and Metropolitan's request for the return of water in 2022. In 2021, Metropolitan recovered 5,679 acre-feet by exchanges with surface water. The amount of surface water that may be available for recovery by Metropolitan from Arvin-Edison in 2022 is not yet known.

Semitropic/Metropolitan Groundwater Storage and Exchange Program. In 1994, Metropolitan entered into an agreement with the Semitropic Water Storage District ("Semitropic"), located adjacent to the California Aqueduct north of Bakersfield, to store water in the groundwater basin underlying land within Semitropic. The minimum annual yield available to Metropolitan from the program is 38,200 acre-feet of water and the maximum annual yield is 239,200 acre-feet of water depending on the available unused capacity and the State Water Project allocation. The agreement extends to November 2035. Metropolitan's estimated storage account balance under the Semitropic program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

Kern Delta Storage Program. Metropolitan entered into an agreement with Kern Delta Water District ("Kern Delta") in May 2003, for a groundwater banking and exchange transfer program to allow Metropolitan to store up to 250,000 acre-feet of State Water Contract water in wet years and to permit Metropolitan, at Metropolitan's option, a return of up to 50,000 acre-feet of water annually during hydrologic and regulatory droughts. The agreement extends through 2028. Metropolitan's estimated storage account balance under this program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

Mojave Storage Program. Metropolitan entered into a groundwater banking and exchange transfer agreement with Mojave in October 2003. The agreement allows for Metropolitan to store water in an exchange account for later return. The agreement allows Metropolitan to annually withdraw Mojave State Water Project contractual amounts, after accounting for local needs. Under a 100 percent allocation, the State Water Contract provides Mojave 82,800 acre-feet of water. This agreement was amended in 2011 to allow for the cumulative storage of up to 390,000 acre-feet. The term of this agreement extends through 2035. Metropolitan's estimated storage account balance under this program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

Antelope Valley-East Kern Storage and Exchange Program. In 2016, Metropolitan entered into an agreement with the Antelope Valley-East Kern Water Agency ("AVEK"), the third largest State Water Contractor, to both exchange supplies and store water in the Antelope Valley groundwater basin. Under the exchange, AVEK would provide at least 30,000 acre-feet over ten years of its unused Table A State Water Project water to Metropolitan. For every two acre-feet provided to Metropolitan as part of the exchange, AVEK would receive back one acre-foot in the future. For the one acre-foot that is retained by Metropolitan, Metropolitan would pay AVEK under a set price schedule based on the State Water Project allocation at the time. Under this agreement, AVEK also provides Metropolitan up to 30,000 acre-feet of storage. Metropolitan's estimated storage account balance under this program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

Antelope Valley-East Kern High Desert Water Bank Program. In 2019, Metropolitan entered into an agreement with AVEK for a groundwater banking program referred to as the High Desert Water Bank Program. The estimated cost of construction of the facilities to implement the program is $131 million. Following completion of construction, which is expected by mid-2025, Metropolitan would have the right to store up to 70,000 acre-feet per year of its unused Table A State Water Project water or other supplies in the Antelope Valley groundwater basin for later return. The maximum storage capacity for Metropolitan supplies would be 280,000 acre-feet. At Metropolitan's direction, up to 70,000 acre-feet of stored water annually would be available for return by direct pump back into the East Branch of the California Aqueduct. Upon completion, this program would provide additional flexibility to store and recover water for emergency or water supply needs through 2057.

San Gabriel Valley Municipal Water District and Other Exchange Programs. In 2013, Metropolitan entered into an agreement with the San Gabriel Valley Municipal Water District ("SGVMWD"). Under this

agreement, Metropolitan delivers treated water to a SGVMWD subagency in exchange for twice as much untreated water in the groundwater basin. Metropolitan's member agencies can then use the groundwater supplies to meet their needs. Metropolitan can exchange and purchase at least 5,000 acre-feet per year. This program has the potential to increase Metropolitan's reliability by providing 115,000 acre-feet through 2035.

Irvine Ranch Water District Strand Ranch Banking Program. In 2011, Metropolitan entered into an agreement with the Municipal Water District of Orange County ("MWDOC") and the Irvine Ranch Water District ("IRWD") to authorize the delivery of State Water Project supplies from Strand Ranch into Metropolitan's service area. IRWD facilitates Metropolitan entering into unbalanced exchanges with other State Water Contractors. A portion of the water is returned to the partnering State Water Contractor with the remaining balance delivered to Metropolitan's service area. MWDOC/IRWD takes delivery of the water through Metropolitan's distribution system and pays the Metropolitan full-service water rate. Metropolitan can call on stored supplies; in return, Metropolitan is obliged to return an equal amount of water to MWDOC in future years for IRWD's benefit. This agreement extends to November 2035 and enhances regional reliability by providing Metropolitan with access to additional supplies.

San Bernardino Valley Municipal Water District Exchange Program. In 2020, Metropolitan signed a coordinated operating and surplus water agreement with SBVMWD. In 2021, in accordance with the terms of such agreement, Metropolitan's Board authorized an agreement with SBVMWD that provides a framework which allows for the exchange of both local and State Water Project supplies. The exchanges are equal if they occur within the same calendar year and up to two-to-one if water is returned in a subsequent calendar year. The agreement, which extends through 2031, provides for improved coordination to respond to outages and emergencies of either party.

San Diego County Water Authority Semitropic Program. In 2021, Metropolitan's Board approved an agreement with SDCWA for the purchase by Metropolitan of 4,200 acre-feet and a lease of 5,000 acre-feet of return capacity from SDCWA's Semitropic Program for 2022. The agreement provides for improved regional reliability and also allows for the exchange of previously stored water with Metropolitan in the future.

Other Ongoing Activities. Metropolitan has been negotiating, and will continue to pursue, water purchase, storage and exchange programs with other agencies in the Sacramento and San Joaquin Valleys. These programs involve the storage of both State Water Project supplies and water purchased from other sources to enhance Metropolitan's dry-year supplies and the exchange of normal year supplies to enhance Metropolitan's water reliability and water quality, in view of dry conditions and potential impacts from the ESA considerations discussed above under the heading "–Endangered Species Act and Other Environmental Considerations Relating to Water Supply– Endangered Species Act Considerations – State Water Project." In April 2021, in light of the persistent dry hydrological conditions, the Board authorized the General Manager to secure up to 65,000 acre-feet of additional water supplies pursuant to one-year water transfers from water districts located north of the Sacramento-San Joaquin River Delta, at a maximum cost of up to $44 million. As a result, approximately 40,000 acre-feet were secured that allowed Metropolitan to preserve water stored in surface water reservoirs on the State Water Project system for 2022. In April 2022, in light of the persistent dry hydrological conditions, the Board authorized the General Manager to secure up to 75,000 acre-feet of additional water supplies pursuant to one-year water transfers from water districts located north of the Sacramento-San Joaquin River Delta, at a maximum cost of up to $60 million. As part of the Board authorization, the General Manager was granted final decision-making authority to determine whether or not to move forward with such water transfers following completion of any environmental reviews that may be required under CEQA. Metropolitan has in place arrangements for approximately 30,000 to 35,000 acre-feet of transfers pursuant to this authority.

The Sites Reservoir is a proposed reservoir project of approximately 1.3 to 1.5 million acre-feet, being analyzed by the Sites Reservoir Authority, to be located in Colusa County. The water stored in the proposed project would be diverted from the Sacramento River. As currently proposed, the Sites Reservoir project would

have dedicated water storage and yield that would be used for fishery enhancement, water quality, and other environmental purposes. The proposed project could also provide an additional water supply that could be used for dry-year benefits. Metropolitan is a member of the Sites Reservoir Committee, a group of 30 agencies that are participating in certain planning activities in connection with the proposed development of the project, including the development of environmental planning documents, a federal feasibility report and project permitting. In April 2022, Metropolitan's Board approved $20 million in funding for Metropolitan's continued participation in such planning activities through the end of 2024. Metropolitan's agreement to participate in the funding of this phase of project development activities does not commit Metropolitan to participate in any actual reservoir project that may be undertaken in the future.

Colorado River Aqueduct Agreements and Programs

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water, including through cooperative programs with other water agencies to conserve and develop supplies and through programs to exchange water with other agencies. These supplies are conveyed through the CRA. Metropolitan determines the delivery schedule of these supplies throughout the year based on changes in the availability of State Water Project and Colorado River water. Under certain of these programs, water may be delivered to Metropolitan's service area in the year made available or in a subsequent year as ICS water from Lake Mead storage. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*."

IID/Metropolitan Conservation Agreement. Under a 1988 water conservation agreement, as amended in 2003 and 2007 (the "1988 Conservation Agreement") between Metropolitan and IID, Metropolitan provided funding for IID to construct and operate a number of conservation projects that have conserved up to 109,460 acre-feet of water per year that has been provided to Metropolitan. As amended, the agreement's initial term has been extended to at least 2041 or 270 days after the termination of the QSA. In 2019, 105,000 acre-feet of conserved water was made available by IID to Metropolitan. Under the QSA and related agreements, Metropolitan, at the request of CVWD, forgoes up to 20,000 acre-feet of this water each year for diversion by CVWD from the Coachella Canal. In each of 2018 and 2019, CVWD's requests were for 0 acre-feet, leaving 105,000 acre-feet in 2018 and 2019 for Metropolitan. In December 2019, Metropolitan signed a revised agreement with CVWD in which CVWD will limit its annual request of water from this program to 15,000 acre-feet through 2026. See "–Colorado River Aqueduct –Quantification Settlement Agreement."

Palo Verde Land Management, Crop Rotation and Water Supply Program. In August 2004, Metropolitan and Palo Verde Irrigation District ("PVID") signed the program agreement for a Land Management, Crop Rotation and Water Supply Program. Under this program, participating landowners in the PVID service area are compensated for reducing water use by not irrigating a portion of their land. This program provides up to 133,000 acre-feet of water to be available to Metropolitan in certain years. The term of the program is 35 years. Fallowing began on January 1, 2005. The following table shows annual volumes of water saved and made available to Metropolitan during the 10 calendar years 2012 through 2021 under the Land Management, Crop Rotation and Water Supply Program with PVID:

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WATER AVAILABLE FROM PVID LAND MANAGEMENT, CROP ROTATION AND WATER SUPPLY PROGRAM

Calendar Year	Volume (acre-feet)
2012	73,700
2013	32,800
2014	43,000
2015	94,500
2016	125,400
2017	111,800
2018	95,800
2019	44,500
2020	43,900
2021	42,305

Source: Metropolitan.

Bard Water District Seasonal Fallowing Program. In 2019, Metropolitan entered into agreements with Bard Water District ("Bard") and farmers within Bard Unit, to provide incentives for land fallowing under the Bard Seasonal Fallowing Program. The program reduces water consumption in Bard and that helps augment Metropolitan's Colorado River supplies. It incentivizes farmers to fallow their land for four months at $452 per irrigable acre, escalated annually. Metropolitan estimates water savings of approximately 2.2 acre-feet per fallowed acre. Bard diverts Colorado River water for crop irrigation grown year-round in the warm dry climate. Farmers typically grow high-value crops in the winter (vegetable crops) followed by a lower-value, water-intensive, field crop (such as Bermuda and Sudan grass, small grains, field grains, or cotton) in the spring and summer. Participating farmers will reduce their water consumption through land fallowing of up to 3,000 acres annually between April and July.

Quechan Tribe of the Fort Yuma Indian Reservation Seasonal Fallowing Pilot Program. In 2021, Metropolitan entered into an agreement with the Quechan Tribe of the Fort Yuma Indian Reservation to launch the voluntary Quechan Seasonal Fallowing Pilot Program. Under the pilot program, Metropolitan provides incentives to farmers on Quechan tribal land for land fallowing that reduces water consumption to help augment Metropolitan's Colorado River supplies. Desert agriculture realizes a market advantage in the winter for high-value vegetables such as lettuce and broccoli. In the hot summer, farmers typically grow lower-value, water-intensive commodities such as grains and grasses. Farmers participating in the pilot program agree to decrease their water consumption through land fallowing of up to 1,600 acres annually during April through July in 2022 and 2023. In calendar year 2022, Metropolitan will provide an incentive of $472.40 per irrigable acre fallowed, escalated annually. Metropolitan estimates water savings between 1.5 and 2.0 acre-feet per irrigable acre fallowed, with actual savings to be determined throughout the pilot program.

Lake Mead Storage Program. As described under "–Colorado River Aqueduct –Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*," Metropolitan has entered into agreements to set forth the guidelines under which ICS water is developed and stored in and delivered from Lake Mead. The amount of water stored in Lake Mead must be created through extraordinary conservation, system efficiency, tributary, imported, or binational conservation methods. Metropolitan has participated in projects to create ICS as described below:

Drop 2 (Warren H. Brock) Reservoir. In 2008, Metropolitan, CAWCD and SNWA provided funding for the Bureau of Reclamation's construction of an 8,000 acre-foot off-stream regulating reservoir near Drop 2 of the All-American Canal in Imperial County (officially named the Warren H. Brock Reservoir). Construction was completed in October 2010. The Warren H. Brock Reservoir conserves about 70,000 acre-

feet of water per year by capturing and storing water that would otherwise be lost from the system. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead for its future use and has the ability to receive up to 25,000 acre-feet of water in any single year. Besides the additional water supply, the addition of the Warren H. Brock reservoir adds to the flexibility of Colorado River operations by storing underutilized Colorado River water orders caused by unexpected canal outages, changes in weather conditions, and high tributary runoff into the Colorado River. As of January 1, 2022, Metropolitan had taken delivery of 35,000 acre-feet of this water and had 65,000 acre-feet remaining in storage.

International Water Treaty Minutes 319 and 323. In November 2012, as part of the implementation of Treaty Minute 319, Metropolitan executed agreements in support of a program to augment Metropolitan's Colorado River supply between 2013 through 2017 through an international pilot project in Mexico. Metropolitan's total share of costs was $5 million for 47,500 acre-feet of project supplies. In December 2013, Metropolitan and IID executed an agreement under which IID has paid half of Metropolitan's program costs, or $2.5 million, in return for half of the project supplies, or 23,750 acre-feet. As such, 23,750 acre-feet of Intentionally Created Mexican Allocation was converted to Binational ICS and credited to Metropolitan's binational ICS water account in 2017. See "–Colorado River Aqueduct –Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*." In September 2017, as part of the implementation of Treaty Minute 323, Metropolitan agreed to fund additional water conservation projects in Mexico that will yield approximately 27,275 acre-feet of additional supply for Metropolitan by 2026 at a cost of approximately $3.75 million. In 2020, Metropolitan made the first payment related to Treaty Minute 323 of $1.25 million, and 9,092 acre-feet of Intentionally Created Mexican Allocation was converted to Binational ICS and credited to Metropolitan's binational ICS water account. The next payment is expected in 2023.

Storage and Interstate Release Agreement with Nevada. In May 2002, SNWA and Metropolitan entered into an Agreement Relating to Implementation of Interim Colorado River Surplus Guidelines, in which SNWA and Metropolitan agreed to the allocation of unused apportionment as provided in the Interim Surplus Guidelines and on the priority of SNWA for interstate banking of water in Arizona. SNWA and Metropolitan entered into a storage and interstate release agreement on October 21, 2004. Under this agreement, SNWA can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2014 under this agreement was approximately 205,000 acre-feet. In October 2015, SNWA and Metropolitan executed an additional amendment to the agreement under which Metropolitan paid SNWA approximately $44.4 million and SNWA stored an additional 150,000 acre-feet with Metropolitan during 2015. Of that amount, 125,000 acre-feet have been added to SNWA's storage account with Metropolitan, increasing the total amount of water stored to approximately 330,000 acre-feet. In subsequent years, SNWA may request recovery of the stored water. When SNWA requests the return of any of the stored 125,000 acre-feet, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million plus inflation based on the amount of water returned. SNWA has not yet requested the return of any of the water stored with Metropolitan and it is not expected that SNWA will request a return of any of the stored water before 2023.

California ICS Agreement Intrastate Storage Provisions. As described under "–Colorado River Aqueduct –Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*," in 2007, IID, Metropolitan and other Colorado River contractors in California executed the California ICS Agreement, which divided California's ICS storage space in Lake Mead between Metropolitan and IID. It also allowed IID to store up to 50,000 acre-feet of conserved water in Metropolitan's system. In 2015, the California ICS Agreement was amended to allow IID to store additional amounts of water in Metropolitan's system during 2015 through 2017. Under the 2015 amendment, IID was permitted to store up to 100,000 acre-feet per year of conserved water within Metropolitan's system with a cumulative limit of 200,000 acre-feet, for the three-year term. When requested by IID, Metropolitan has agreed to return to IID the lesser of either 50,000 acre-feet per year, or in a year in which Metropolitan's member agencies are under a shortage allocation, 50 percent of the cumulative amount of water IID has stored with Metropolitan under the 2015 amendment. IID currently has 161,000 acre-

feet of water stored with Metropolitan pursuant to the terms of the California ICS Agreement and its amendment.

In 2018, IID had reached the limit on the amount of water it was able to store in Metropolitan's system under the California ICS Agreement, and entered into discussions with Metropolitan to further amend the agreement, but no such agreement was reached. On December 4, 2020, IID filed a complaint against Metropolitan alleging that Metropolitan breached the California ICS Agreement, breached the implied covenant of good faith and fair dealing, and that Metropolitan converted IID's intentionally created surplus for its own use. IID's complaint sought the imposition of a constructive trust over 87,594 acre-feet of water in Lake Mead that was received by Metropolitan in 2018.

In October 2021, Metropolitan and IID agreed to settle the dispute. Under the terms of the settlement agreement, Metropolitan will, after applying storage losses, retain approximately 40 percent of the disputed 87,594 acre-feet that Metropolitan received in 2018 and will have stored the remaining approximately 60 percent for IID to be returned to IID in 2026. If Metropolitan does not have sufficient ICS to make a DCP contribution in 2026, Metropolitan may use the remaining stored water to do so. From 2021 through 2026, IID may store up to an additional 25,000 acre-feet per year (with an accumulation limit of an additional 50,000 acre-feet) of conserved water in Metropolitan's Lake Mead ICS account. While IID will still not be a party to the DCP, if Metropolitan is required to make a DCP contribution, IID will assist Metropolitan in making DCP contributions by contributing the lesser of either: (a) three percent of California's DCP contribution; or (b) the amount of water IID has stored with Metropolitan. On December 6, 2021, the lawsuit was dismissed with prejudice.

State Water Project and Colorado River Aqueduct Arrangements

Metropolitan/CVWD/Desert Water Agency Amended and Restated Agreement for the Exchange and Advance Delivery of Water. Metropolitan has agreements with CVWD and the Desert Water Agency ("DWA") under which Metropolitan exchanges its Colorado River water for the agencies' State Water Project contractual water and other State Water Project water acquisitions on an annual basis. Because CVWD and DWA do not have a physical connection to the State Water Project, Metropolitan takes delivery of CVWD's and DWA's State Water Project supplies and delivers a like amount of Colorado River water to the agencies. In accordance with these agreements, Metropolitan may deliver Colorado River water in advance of receiving State Water Project supplies to these agencies for storage in the Upper Coachella Valley groundwater basin. In years when it is necessary to augment available supplies to meet local demands, Metropolitan may meet the exchange delivery obligation through drawdowns of the advance delivery account, in lieu of delivering Colorado River water in that year. Metropolitan's estimated storage account under the CVWD/DWA program as of January 1, 2022 is shown in the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below. In addition to the storage benefits of the CVWD/DWA program, Metropolitan receives water quality benefits with increased deliveries of lower salinity water from the State Water Project in lieu of delivering higher saline Colorado River water. In December 2019, the exchange agreements were amended to provide more flexibility and operational certainty for the parties involved. Additionally, under the amended agreements, CVWD and DWA pay a portion of Metropolitan's water storage management costs in wet years, up to a combined total of $4 million per year.

Operational Shift Cost Offset Program. In 2021, Metropolitan's Board approved the Operational Shift Cost Offset Program to help Metropolitan maximize resources available from Colorado River and State Water Project storage. Metropolitan has and continues to work with member agencies that have service connections to both State Water Project supplies and Colorado River water to shift their points of delivery to meet demands wherever possible to preserve State Water Project storage. Although member agencies can make some shifts in delivery locations, these shifts may result in additional operational costs. Under the Operational Shift Cost Offset Program, Metropolitan offsets costs member agencies may accrue due to shifting deliveries at Metropolitan's request in calendar years 2021 and 2022. This allows Metropolitan to fully utilize its diverse

portfolio and increases reliability for the entire region by improving the availability of State Water Project storage reserves to supplement supplies during dry years.

Storage Capacity and Water in Storage

Metropolitan's storage capacity, which includes reservoirs, conjunctive use and other groundwater storage programs within Metropolitan's service area and groundwater and surface storage accounts delivered through the State Water Project or CRA, is approximately 6.0 million acre-feet. In 2021, approximately 750,000 acre-feet of total stored water in Metropolitan's reservoirs and other storage resources was emergency storage. Metropolitan's emergency storage is a regional planning objective established periodically to prevent severe water shortages for the region in the event of supply interruptions from catastrophic earthquakes or similar events (see "METROPOLITAN'S WATER DELIVERY SYSTEM–Seismic Considerations and Emergency Response Measures" in this Appendix A). The current emergency storage target of 750,000 acre-feet is based on an outage duration of 6 to 12 months, retail water demand reduction of 25 to 35 percent based on achievable conservation actions, and aggregated loss of 10 to 20 percent of local production. Retail demand calculations for purposes of the emergency storage target were based on a 2015 IRP forecast of demand for the year 2018 under average conditions. Metropolitan replenishes its storage accounts when available imported supplies exceed demands. Metropolitan's ability to replenish water storage, both in the local groundwater basins and in surface storage and banking programs, has been limited by Bay-Delta pumping restrictions under the biological opinions issued for listed species. See "–Endangered Species Act and Other Environmental Considerations Relating to Water Supply –Endangered Species Act Considerations – State Water Project – *Federal ESA-Biological Opinions*." Effective storage management is dependent on having sufficient years of excess supplies to store water so that it can be used during times of shortage. See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Supply Allocation Plan" in this Appendix A. Metropolitan's storage as of January 1, 2022 is estimated to be 3.38 million acre-feet. The following table shows three years of Metropolitan's water in storage as of January 1, including emergency storage.

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METROPOLITAN'S WATER STORAGE CAPACITY AND WATER IN STORAGE[1]
(in Acre-Feet)

Water Storage Resource	Storage Capacity	Water in Storage January 1, 2022	Water in Storage January 1, 2021	Water in Storage January 1, 2020
Colorado River Aqueduct				
DWA / CVWD Advance Delivery Account	800,000	293,000	313,000	296,000
Lake Mead ICS	1,657,000	1,274,000	1,294,000	980,000
Subtotal	**2,457,000**	**1,567,000**	**1,607,000**	**1,276,000**
State Water Project				
Arvin-Edison Storage Program[2]	350,000	136,000	142,000	143,000
Semitropic Storage Program	350,000	218,000	261,000	265,000
Kern Delta Storage Program	250,000	149,000	183,000	194,000
Mojave Storage Program	330,000[5]	19,000[5]	19,000[5]	19,000[5]
AVEK Storage Program	30,000	27,000	27,000	27,000
Castaic Lake and Lake Perris[3]	219,000	49,000	219,000	219,000
State Water Project Carryover[4]	350,000[6]	38,000	207,000	331,000
Emergency Storage	381,000	381,000	381,000	381,000
Subtotal	**2,260,000**	**1,017,000**	**1,433,000**	**1,574,000**
Within Metropolitan's Service Area				
Diamond Valley Lake	810,000	600,000	704,000	796,000
Lake Mathews	182,000	140,000	86,000	152,000
Lake Skinner	44,000	39,000	41,000	38,000
Subtotal[7]	**1,036,000**	**779,000**	**831,000**	**986,000**
Member Agency Storage Programs				
Conjunctive Use[8]	210,000	16,000	41,000	59,000
Total	**5,963,000**	**3,379,000**	**3,912,000**[9]	**3,895,000**

Source: Metropolitan

(1) Water storage capacity and water in storage are measured based on engineering estimates and are subject to change.

(2) Metropolitan has suspended the return of groundwater from the Arvin-Edison storage program. Stored supplies can still be recovered via surface water exchange. See "–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs – *Arvin-Edison/Metropolitan Water Management Program.*" See also "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Quality and Treatment" in this Appendix A.

(3) Flexible storage allocated to Metropolitan under its State Water Contract. Withdrawals must be returned within five years.

(4) Includes Article 56 Carryover of Metropolitan, Coachella Valley Water District, and Desert Water Agency, prior-year carryover, non-project carryover, and carryover of curtailed deliveries pursuant to Article 14(b) and Article 12(e) of Metropolitan's State Water Contract. See "–Water Transfer, Storage and Exchange Programs – State Water Project Agreements and Programs – *Metropolitan Article 56 Carryover.*"

(5) The Mojave storage agreement was amended in 2011 to allow for cumulative storage of up to 390,000 acre-feet. Since January 1, 2011, Metropolitan has stored 60,000 acre-feet, resulting in a remaining balance of storage capacity of 330,000 acre-feet. 41,000 acre-feet of the 60,000 acre-feet stored have been returned, leaving a remaining balance in storage of 19,000 acre-feet. See "–Water Transfer, Storage and Exchange Programs – State Water Project Agreements and Programs – *Mojave Storage Program.*"

(6) A capacity of 350,000 acre-feet is estimated to be the practical operational limit for carryover storage considering Metropolitan's capacity to take delivery of carryover supplies before San Luis Reservoir fills.

(7) Includes 369,000 acre-feet of emergency storage in Metropolitan's reservoirs in 2020, 2021 and 2022.

(8) Cyclic storage water was removed from this line item and is now categorized as a pre-delivery.

(9) Represents Metropolitan's historical highest level of water in storage.

CONSERVATION AND WATER SHORTAGE MEASURES

General

The central objective of Metropolitan's water conservation program is to help ensure adequate, reliable and affordable water supplies for Southern California by actively promoting efficient water use. The importance of conservation to the region has increased in recent years because of drought conditions in the State Water Project watershed and court-ordered restrictions on Bay-Delta pumping, as described under "METROPOLITAN'S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project" and "–Endangered Species Act and Other Environmental Considerations Relating to Water Supply – Endangered Species Act Considerations-State Water Project – *Federal ESA-Biological Opinions*" in this Appendix A. Ongoing drought conditions in the Colorado River have further emphasized the need for additional conservation efforts. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – *Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*" and "–Current Water Conditions and Drought Response Actions" in this Appendix A. Conservation reduces the need to import water to deliver to member agencies through Metropolitan's system. Water conservation is an integral component of Metropolitan's IRP, WSDM Plan, and Water Supply Allocation Plan.

Metropolitan's conservation program has largely been developed to assist its member agencies in meeting the conservation goals established by the 2015 IRP Update. See "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A. All users of Metropolitan's system benefit from the reduced infrastructure costs and system capacity made available by investments in demand management programs like the Conservation Credits Program. Under the terms of Metropolitan's Conservation Credits Program, Metropolitan administers regional conservation programs and co-funds member agency conservation programs designed to achieve greater water use efficiency in residential, commercial, industrial, institutional and landscape uses. Direct spending by Metropolitan on active conservation incentives, including rebates for water-saving plumbing fixtures, appliances and equipment totaled about $16.9 million in fiscal year 2020-21. Conservation efforts undertaken pursuant to the 2015 IRP Update are estimated to have resulted in approximately 131,876 acre-feet of water being conserved annually in Southern California over the period 2016 through 2021.

Metropolitan has worked proactively with its member agencies to conserve water supplies in its service area, and significantly expanded its water conservation and outreach programs and increased funding for conservation incentive programs. Historically, revenues collected by Metropolitan's Water Stewardship Rate and available grant funds have funded conservation incentives, local resource development incentives, and other water demand management programs. The Water Stewardship Rate was charged on every acre-foot of water conveyed by Metropolitan, except on water delivered to SDCWA pursuant to the Exchange Agreement (see "METROPOLITAN REVENUES–Water Rates" and "–Litigation Challenging Rate Structure" in this Appendix A) in calendar years 2018, 2019, and 2020. The Water Stewardship Rate was not incorporated into Metropolitan's rates and charges for 2021 and 2022 or 2023 and 2024. See "METROPOLITAN REVENUES–Rate Structure – *Water Stewardship Rate*" in this Appendix A.

In addition to ongoing conservation, Metropolitan has developed a WSDM Plan, which splits resource actions into two major categories: Surplus Actions and Shortage Actions. See "–Water Surplus and Drought Management Plan." Conservation and water efficiency programs are part of Metropolitan's resource management strategy which makes up these surplus and shortage actions.

The Water Supply Allocation Plan allocates Metropolitan's water supplies among its member agencies, based on the principles contained in the WSDM Plan, to reduce water use and drawdowns from water storage reserves. See "–Water Supply Allocation Plan." Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also can implement water conservation and allocation programs, and some of the retail suppliers in Metropolitan's service area have initiated conservation measures. The success

of conservation measures in conjunction with the implementation of the Water Supply Allocation Plan in fiscal years 2009-10, 2010-11, 2011-12 and 2015-16 is evidenced as a contributing factor in the lower than budgeted water transactions during such drought periods.

Legislation approved in November 2009 set a statewide conservation target for urban per capita potable water use of 20 percent reductions (from a baseline per capita use determined utilizing one of four State-approved methodologies) by 2020 (with credits for existing conservation) at the retail level, providing an additional catalyst for conservation by member agencies and retail suppliers. Metropolitan's water transactions projections incorporate an estimate of conservation savings that will reduce retail demands. Current projections include an estimate of additional water use efficiency savings resulting from Metropolitan's 2015 IRP Update goals that included the reduction of overall regional per capita water use by 20 percent by 2020 from a baseline of average per capita water use from 1996-2005 in Metropolitan's service area. As of calendar year 2020, per capita water use in Metropolitan's service area had reached the 20 percent reduction by 2020 target.

Water Surplus and Drought Management Plan

In addition to the long-term planning guidelines and strategy provided by its IRP, Metropolitan has developed its WSDM Plan for the on-going management of its resources and water supplies in response to hydrologic conditions. The WSDM Plan, which was adopted by Metropolitan's Board in April 1999, evolved from Metropolitan's experiences during the droughts of 1976-77 and 1987-92. The WSDM Plan is a planning document that Metropolitan uses to guide inter-year and intra-year storage operations, and splits resource actions into two major categories: surplus actions and shortage actions. The surplus actions emphasize storage of surplus water inside the region, followed by storage of surplus water outside the region. The shortage actions emphasize critical storage programs and facilities and conservation programs that make up part of Metropolitan's response to shortages. Implementation of the plan is directed by a WSDM team, made up of Metropolitan staff, that meets regularly throughout the year and more frequently between November and April as hydrologic conditions develop. The WSDM team develops and recommends storage actions to senior management on a regular basis and provides updates to the Board on hydrological conditions, storage levels and planned storage actions through detailed reports.

Water Supply Allocation Plan

In times of prolonged or severe water shortages, Metropolitan manages its water supplies through the implementation of its Water Supply Allocation Plan. The Water Supply Allocation Plan was originally approved by Metropolitan's Board in February 2008, and has been implemented three times since its adoption, including most recently in April 2015. The Water Supply Allocation Plan provides a formula for equitable distribution of available water supplies in case of extreme water shortages within Metropolitan's service area and if needed is typically approved in April with implementation beginning in July. In December 2014, the Board approved certain adjustments to the formula for calculating member agency supply allocations during subsequent periods of implementation of the Water Supply Allocation Plan. Although the Act gives each of Metropolitan's member agencies a preferential entitlement to purchase a portion of the water served by Metropolitan (see "METROPOLITAN REVENUES–Preferential Rights" in this Appendix A), historically, these rights have not been used in allocating Metropolitan's water. Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also may implement water conservation and allocation programs within their respective service territories in times of shortage. See also "METROPOLITAN'S WATER SUPPLY-Current Water Conditions and Drought Response Actions" in this Appendix A. Based upon Metropolitan's existing storage balances, implementation of the Water Supply Allocation Plan for fiscal year 2022-23 is not expected. However, in response to minimal supplies of State Water Project water in 2022 to meet normal demands in areas that cannot be supplied with Colorado River water, in April 2022, Metropolitan's Board approved the framework of an Emergency Water Conservation Program (described below) to reduce demands for State Water Project water.

Emergency Water Conservation Program for the State Water Project Dependent Area

As a result of record drought in California and extremely limited State Water Project allocations, Metropolitan anticipates insufficient supplies in 2022 to meet normal demands in the SWP Dependent Area. The SWP Dependent Area is defined as the current portion of the service area that can only receive Metropolitan's supplies through the State Water Project system. These supplies include the annual State Water Project allocation, north of Delta water transfers and previously stored State Water Project supplies such as groundwater banking, carryover, and flexible supplies in Castaic Lake and Lake Perris. The boundaries of the SWP Dependent Area are not static. Metropolitan's drought mitigation actions since 2021 have reduced the SWP Dependent Area by increasing the ability to move more Colorado River supplies to greater portions of the service area. However, with critical State Water Project supply conditions in 2022 and the persistent drought that has depleted supplies accessible to the SWP Dependent Area, Metropolitan has determined that it is imperative to further reduce demands in the SWP Dependent Area.

Metropolitan's existing Water Supply Allocation Plan was designed to be used when a regionwide shortage exists. Staff determined that the Water Supply Allocation Plan, with its regional focus, would not effectively or efficiently alleviate the circumstances of this current drought emergency. Instead, an Emergency Water Conservation Program was developed in coordination with affected member agencies to preserve remaining supplies available to the SWP Dependent Area in a more expedient manner.

On April 26, 2022, Metropolitan's Board declared a Water Shortage Emergency Condition exists for the SWP Dependent Area and unanimously adopted the framework of an Emergency Water Conservation Program. Metropolitan's Board also authorized the General Manager to finalize the program within 30 days consistent within the adopted framework. The purpose of the Emergency Water Conservation Program is to adaptively preserve supplies by reducing non-essential uses of water delivered through the State Water Project system. When Metropolitan's Board adopted this program in April 2022, the emergency was estimated to affect approximately 6.6 million (or 35%) of the 18.7 million people in Metropolitan's service area. Metropolitan continues to work with its member agencies to further reduce the extent of the SWP Dependent Area, and for those that remain within the SWP Dependent Area, the Emergency Water Conservation Program is expected to reduce their use of State Water Project water to stay within available State Water Project supplies.

The Emergency Water Conservation Program includes two paths for affected member agencies to reduce use of Metropolitan's supplies delivered from the State Water Project system. Beginning on June 1, 2022, affected member agencies may either comply with one-day-per-week watering restrictions, which no earlier than September 1 may be further restricted to zero-day-per-week watering in the event the General Manager determines that such a ban is necessary to preserve State Water Project supplies, or achieve compliance with volumetric limits on State Water Project supply based on their equivalent share of human health and safety water available from DWR plus any additional water Metropolitan is able to provide from the State Water Project system shared out to each agency based on proportionate population. Under the volumetric limits-based compliance path, beginning in June 2022, member agencies that take delivery of State Water Project water above their limit are subject to a volumetric penalty surcharge on the excess water, to be accrued and billed on a monthly basis. No earlier than December 1, at the General Manager's discretion, Metropolitan may implement volumetric limits with associated penalties on all SWP Dependent Area member agencies, including agencies that had previously chosen the outdoor watering restriction compliance path. The Emergency Water Conservation Program is intended as a short-term policy until a more permanent alternative can be provided through ongoing operational, physical, and supply actions to remedy the supply constraints in the portion of Metropolitan's service area identified as the SWP Dependent Area. The physical actions being considered to modify the existing infrastructure include interconnections between distribution systems, new pumping or conveyance components to deliver alternative sources of supply, expansion of surface and groundwater storage, improvements in groundwater treatment, and desalination.

REGIONAL WATER RESOURCES

The water supply for Metropolitan's service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. Non-Metropolitan sources include water imported by the City of Los Angeles (the "City") from the Owens Valley/Mono Basin east of the Sierra Nevada through the City's Los Angeles Aqueduct to serve customers of the City. See "– Los Angeles Aqueduct." The balance of water within the region is produced locally, from sources that include groundwater and surface water production, recycled water and recovery of contaminated or degraded groundwater, and seawater desalination. Programs to develop these local resources include projects funded by Metropolitan's Local Resources Program (the "LRP"), as well as local agency funded programs. See "–Local Water Supplies.

Based on a ten-year average from 2011 through 2020, non-Metropolitan sources met about 54 percent of the region's water needs. These non-Metropolitan sources of supply fluctuate in response to variations in rainfall. During prolonged periods of below normal rainfall, local water supplies decrease. Conversely, prolonged periods of above-normal rainfall increase local supplies. Sources of groundwater basin replenishment include local precipitation, runoff from the coastal ranges, and artificial recharge with imported water supplies. In addition to runoff, recycled water provides an increasingly important source of replenishment water for the region.

Metropolitan's member agencies are not required to purchase or use any of the water available from Metropolitan. Some agencies depend on Metropolitan to supply nearly all of their water needs, regardless of the weather. Other agencies, with local surface reservoirs or aqueducts that capture rain or snowfall, rely on Metropolitan more in dry years than in years with heavy rainfall, while others, with ample groundwater supplies, purchase Metropolitan water only to supplement local supplies and to recharge groundwater basins. Consumer demand and locally supplied water vary from year to year, resulting in variability in the volume of Metropolitan's water transactions.

In recent years, supplies and demands have been affected by drought, water use restrictions, economic conditions, weather conditions and environmental laws, regulations and judicial decisions, as described in this Appendix A under "METROPOLITAN'S WATER SUPPLY." The demand for supplemental supplies provided by Metropolitan is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. See "CONSERVATION AND WATER SHORTAGE MEASURES" in this Appendix A and "–Local Water Supplies" below.

Future reliance on Metropolitan supplies will depend on, among other things, current and future local projects that may be developed and the amount of water that may be derived from sources other than Metropolitan. For information on Metropolitan's water revenues, see "METROPOLITAN REVENUES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

The following graph shows a summary of the regional sources of water supply for the years 1976 to 2020. In the graph below, LAA refers to the Los Angeles Aqueduct. See "–Los Angeles Aqueduct." The graph below includes updated local supply numbers that include Santa Ana River baseflow below Prado Dam, which was previously not included from 1980 through 2009. Additional local supply updates from 2010 through 2018 include changes due to reconciliation from 2020 local supply survey. These values reflect the 2020 Urban Water Management Plan.

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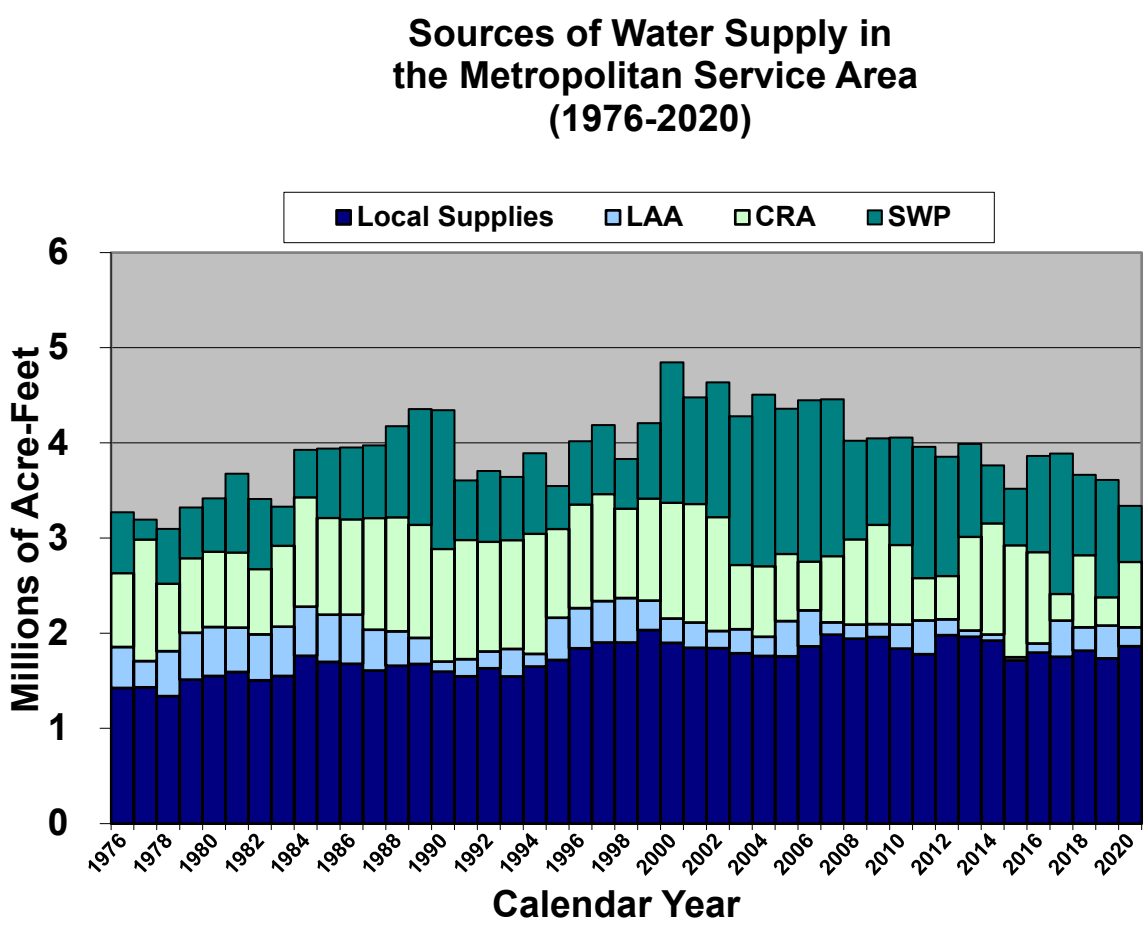

Source: Metropolitan.

The major sources of water available to some or all of Metropolitan's member agencies in addition to supplies provided by Metropolitan are described below.

Los Angeles Aqueduct

The City of Los Angeles (the "City"), through its Department of Water and Power ("LADWP"), operates its Los Angeles Aqueduct system to import water from the Owens Valley and the Mono Basin on the eastern slopes of the Sierra Nevada in eastern California. Water imported by the City on the Los Angeles Aqueduct system comes primarily from surface water rights of the City in eastern Sierra Nevada watersheds along various streams, creeks and rivers in the Mono Basin, Long Valley and Owens Valley, and groundwater resources in the Owens Valley from the City's ownership of approximately 330,000 acres of land and associated water rights. This water supply of the City, which serves LADWP's customers, currently meets about 5 percent of the region's water needs based on a ten-year average from 2011 through 2020.

Surface runoff (snowmelt) is subject to substantial annual variability, which influences the amount of water delivered by the Los Angeles Aqueduct. In addition, the City is subject to several environmental commitments in the Mono Basin and Owens Valley which impact the availability of water to the City for import on the Los Angeles Aqueduct. These include: (i) the SWRCB's Mono Lake Basin Water Rights Decision 1631, which limits the City's water exports from the Mono Basin based on Mono Lake's surface elevation; and (ii) the City's legal obligations under a long-term groundwater management plan relating to the City's groundwater resources in the Owens Valley.

Los Angeles Aqueduct water deliveries to the City vary from one year to the next. Since 2010, Los Angeles Aqueduct water deliveries to the City have varied from as little as 58,000 acre-feet in fiscal year 2014-15 to as much as 313,000 acre-feet of water in fiscal year 2018-19. Average water deliveries to the City from the Los Angeles Aqueduct were approximately 253,000 acre-feet per fiscal year between fiscal years 2016-17 and 2020-21 (approximately 50 percent of the City's annual water supply). However, during fiscal year 2020-21, water deliveries to the City from the Los Angeles Aqueduct were 139,000 acre-feet (approximately 27 percent of the City's water supply for fiscal year 2020-21). Consequently, the amount of water purchased by the City from Metropolitan also varies with the fluctuations of Los Angeles Aqueduct supply. During the past five fiscal years 2016-17 through 2020-21, the City's water purchases from Metropolitan (billed water transactions) ranged from a low of 143,000 in fiscal year 2018-19 to a high of 317,000 in fiscal year 2020-21.

Local Water Supplies

Local water supplies are made up of groundwater, groundwater recovery, surface runoff, recycled water, and seawater desalination. Metropolitan supports local resources development through its LRP, which provides financial incentives of up to $340 per acre-foot of water production (based on actual project unit costs that exceed Metropolitan's water rates) from local water recycling, groundwater recovery, and seawater desalination projects. LRP agreement terms are for 25 years and terminate automatically if construction does not commence within two full fiscal years of agreement execution or if water deliveries are not realized within four full fiscal years of agreement execution. Metropolitan utilizes conjunctive use of groundwater to encourage storage in groundwater basins. Member agencies and other local agencies have also independently funded and developed additional local supplies, including groundwater clean-up, recycled water and desalination of brackish or high salt content water. See also "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Quality and Treatment" in this Appendix A for information regarding certain water quality regulations and developments that impact or may impact certain local groundwater supplies.

Metropolitan's water transaction projections are based in part on projections of locally-supplied water. Projections of future local supplies are based on estimated yields of projects that are currently producing water or are under construction at the time a water transaction projection is made. Estimated yields of projects currently producing water are calculated based on the projects' previous four-year production average. Estimated yields of projects that are under construction at the time a water transaction projection is made are based on data provided by the member agencies. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Transactions Projections" and "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A.

Groundwater. Demands for about 1.1 million acre-feet per year, about one-third of the annual water demands for approximately 19 million residents of Metropolitan's service area, are met from groundwater production. Local groundwater supplies are supported by recycled water, which is blended with imported water and recharged into groundwater basins, and also used for creating seawater barriers that protect coastal aquifers from seawater intrusion.

Member Agency Storage Programs. Metropolitan has developed a number of local programs to work with its member agencies to increase storage in groundwater basins. Metropolitan has encouraged storage through its cyclic and conjunctive use storage programs. These programs allow Metropolitan to deliver water into a groundwater basin in advance of agency demands. Metropolitan has drawn on dry-year supply from nine contractual conjunctive use storage programs to address shortages from the State Water Project and the CRA.

Cyclic storage agreements allow pre-delivery of imported water for recharge into groundwater basins in excess of an agency's planned and budgeted deliveries making best use of available capacity in conveyance pipelines, use of storm channels for delivery to spreading basins, and use of spreading basins. This water is then purchased at a later time when the agency has a need for groundwater replenishment deliveries.

Conjunctive use agreements provide for storage of imported water that can be called for use by Metropolitan during dry, drought, or emergency conditions. During a dry period, Metropolitan has the option to call water stored in the groundwater basins pursuant to its contractual conjunctive use agreements. At the time of the call, the member agency pays Metropolitan the prevailing rate for that water. Nine conjunctive use projects provide about 210,000 acre-feet of groundwater storage and have a combined extraction capacity of about 70,000 acre-feet per year. See the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A.

Reverse Cyclic Program. In 2022, Metropolitan's Board authorized the General Manager to enter into reverse-cyclic agreements with participating member agencies to preserve the availability of Metropolitan's State Water Project supplies. Metropolitan's General Manager initiates deferrals under the Reverse-Cyclic Program when the General Manager determines that the supply conditions warrant deferring the use of State Water Project supplies due to the risk of shortage of these supplies. Under these agreements and at Metropolitan's request, participating member agencies agree to defer Metropolitan deliveries of water purchased in calendar year 2022 to allow Metropolitan to preserve its State Water Project supplies. Metropolitan would bill participating member agencies the 2022 full-service rate and applicable treatment charge. In doing so, the participating member agencies avoid paying the projected higher service rate that would be in place when Metropolitan makes the deferred delivery. Metropolitan will deliver water to the participating member agencies no later than five full calendar years from the date of purchase. Metropolitan is currently drafting agreements with member agencies, with the first agreement expected to be executed in the near future.

Recovered Groundwater. Contamination of groundwater supplies is a growing threat to local groundwater production. Metropolitan has been supporting increased groundwater production and improved regional supply reliability by offering financial incentives to agencies for the production and treatment of degraded groundwater since 1991 through the LRP. Metropolitan has executed LRP agreements with local agencies to provide financial incentives to 29 projects that recover contaminated groundwater with total contract yields of about 127,000 acre-feet per year. Total groundwater recovery use under executed agreements with Metropolitan is estimated to be approximately 60,000 acre-feet in fiscal year 2020-21. Additionally, 65,000 acre-feet of recovered groundwater were produced by local agencies through other independently funded and developed sources.

Surface Runoff. Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Since 1980, agencies have used an average of 110,000 acre-feet per calendar year of local surface water. Local surface water supplies are heavily influenced by year to year local weather conditions, varying from a high of 188,000 acre-feet in calendar year 1998 to a low of 37,000 acre-feet in calendar year 2016.

Stormwater is another local water supply and is surface runoff that is captured and contained on-site as opposed to captured in storage reservoirs or diverted from streams. In 2020, Metropolitan launched two pilot programs to better understand the costs and benefits of stormwater capture, yield, and use. One program examines opportunities to capture stormwater for direct use and the other explores stormwater capture for groundwater recharge. The programs accepted applications through December 31, 2021. Together, Metropolitan committed up to $12.5 million for these programs. These programs are in either the construction or monitoring phase. The pilot programs are expected to last at least five years, including the construction and monitoring phases. The data collected during the pilot programs will assist Metropolitan in evaluating the water supply benefits of stormwater capture and provide guidance for future funding strategies.

Recycled Water-Local Agency Projects. Metropolitan has supported recycled water use to offset water demands and improve regional supply reliability by offering financial incentives to agencies for production and sales of recycled water since 1982 through the LRP. Since the inception of the LRP, Metropolitan has

executed agreements with local agencies to provide financial incentives to 88 recycled water projects with total expected contract yields of about 360,000 acre-feet per year. During fiscal year 2020-21, Metropolitan provided incentives for approximately 57,900 acre-feet of recycled water under these agreements. Total recycled water use under executed agreements with Metropolitan currently in place is estimated to be approximately 118,000 acre-feet annually in fiscal year 2020-21. Additionally, 403,000 acre-feet of recycled water (including wastewater discharged to the Santa Ana River that percolates into downstream groundwater basins) was produced by local agencies through other independently funded and developed sources.

Metropolitan also supports recycled water conversions for property owners through the On-Site Retrofit Program. The On-Site Retrofit Program provides a financial incentive of $195 per acre-foot of offset water for five years to property owners who convert an imported water demand to a recycled water system. In January 2022, Metropolitan's Board authorized staff to increase the incentive term from five to ten years ($195/acre-foot for 10 years) in recognition of the long lifespan of recycled water infrastructure. To date, the On-Site Retrofit Program has provided $11.05 million to 445 projects that offset approximately 12,800 acre-feet per year of imported water supplies.

Recycled Water-Metropolitan Regional Recycled Water Program. Since 2010, Metropolitan has been evaluating the potential and feasibility of implementing a regional recycled water program (the "RRWP"). Chronic drought conditions have resulted in significant reductions in local surface supplies and groundwater production and have increased the need for recharge supplies to groundwater and surface water reservoirs to improve their sustainable yields and operating integrity. In 2015, Metropolitan executed an agreement with the Sanitation Districts of Los Angeles County ("LACSD") to implement a demonstration project and to establish a framework of terms and conditions of the RRWP. The objectives of the RRWP are to enable the potential reuse of up to 150 million gallons per day ("mgd") of treated effluent from LACSD's Joint Water Pollution Control Plant ("JWPCP"). Purified water from a new advanced treatment facility could be delivered through pipelines to the region's groundwater basins, industrial facilities, and two of Metropolitan's treatment plants. Construction of a 0.5-mgd advanced water treatment demonstration plant was approved in 2017 and was completed in September 2019. Testing and operation of the plant began in October 2019 to confirm treatment costs and provide the basis for regulatory approval of the proposed treatment process. The first testing phase was completed in 2021 with future testing phases planned that will form the basis for the design, operation, and optimization of, and will inform Metropolitan's Board decision whether to move forward with, a full-scale advanced water treatment facility. Finally, the RRWP, if constructed, will have the flexibility to be expanded in the future to implement Direct Potable Reuse ("DPR") through raw water augmentation at two of Metropolitan's treatment plants. The SWRCB Division of Drinking Water ("DDW") is in the process of developing regulations for DPR in California, with the current anticipated date for promulgation by the end of 2023. On November 10, 2020, Metropolitan's Board voted to begin environmental planning work on the RRWP. In December 2020, Metropolitan and SNWA executed a funding agreement under which SNWA will contribute up to $6 million for the environmental planning costs for the RRWP. In the event either SNWA or Metropolitan decides not to proceed or participate in the RRWP in the future, SNWA's financial contribution to the RRWP's environmental planning would be returned by Metropolitan. In 2021, Metropolitan signed an agreement with the Arizona Parties (Central Arizona Project and Arizona DWR) for a $6 million financial contribution similar to the SNWA agreement. Metropolitan also has a contribution agreement with LACSD for approximately $4.6 million. Environmental planning phase work for the RRWP began in fiscal year 2020-21 and is expected to continue through fiscal year 2023-24. The fiscal year 2022-23 and 2023-24 biennial budget includes $20 million for planning costs of the RRWP as part of the operations and maintenance budget. Metropolitan's financial projections for the fiscal years ending June 30, 2023 through 2027 include approximately $273 million in fiscal years 2025 through 2027 for estimated future capital costs associated with a potential full-scale RRWP. If approved, design and construction would be expected to take approximately eight years, with total construction costs estimated at approximately $3.7 billion.

Seawater Desalination. Metropolitan supports seawater desalination as a part of the region's supply portfolio as well as a mechanism to increase regional supply resiliency under different climate change and population growth scenarios.

In 2007, the Board approved Metropolitan's role as a regional facilitator for seawater desalination. This includes supporting local projects during permitting and providing technical assistance when requested. Metropolitan's regional facilitation includes active participation in organizations advocating for desalination and salinity management, including CalDesal within California and the Multi-State Salinity Coalition nationally. Metropolitan also participates in the National Alliance for Water Innovation ("NAWI"). NAWI is a Department of Energy-led, $100 million research effort focused on accelerating the commercialization of early-stage desalination technologies. New technologies developed by NAWI could reduce cost and environmental barriers to seawater desalination in California.

In October 2014, seawater desalination projects became eligible for funding under Metropolitan's LRP. There are currently two local seawater desalination projects in the permitting stages that could receive LRP incentives. These include South Coast Water District's proposed 2,000 to 15,000 acre-feet per year Doheny Ocean Desalination project in south Orange County and Orange County Water District's proposed 56,000 acre-feet per year Huntington Beach Seawater Desalination project in north Orange County. LRP applications for potential projects would be considered by Metropolitan's Board after they are permitted, free of litigation, and authorized to proceed by their developing agencies.

In 2015, Poseidon Resources LLC ("Poseidon") began operating the 56,000 acre-foot per year Carlsbad Desalination Project and associated pipeline. SDCWA has a purchase agreement with Poseidon for a minimum of 48,000 acre-feet per year with an option to purchase an additional 8,000 acre-feet per year.

METROPOLITAN'S WATER DELIVERY SYSTEM

Primary Facilities and Method of Delivery

Metropolitan's water delivery system is made up of three basic components: the Colorado River Aqueduct (CRA), the California Aqueduct of the State Water Project and Metropolitan's water distribution system. Metropolitan's delivery system is integrated and designed to meet the differing needs of its member agencies. Metropolitan seeks redundancy in its delivery system to assure reliability in the event of an outage. Improvements are designed to increase the flexibility of the system. Since local sources of water are generally used to their maximum each year, growth in the demand for water is partially met by Metropolitan. The operation of Metropolitan's water system is being made more reliable through the rehabilitation of key facilities as needed, improved preventive maintenance programs and the upgrading of Metropolitan's operational control systems. See "CAPITAL INVESTMENT PLAN" in this Appendix A.

The graphic on the following page depicts Metropolitan's water delivery system, which is further described below.

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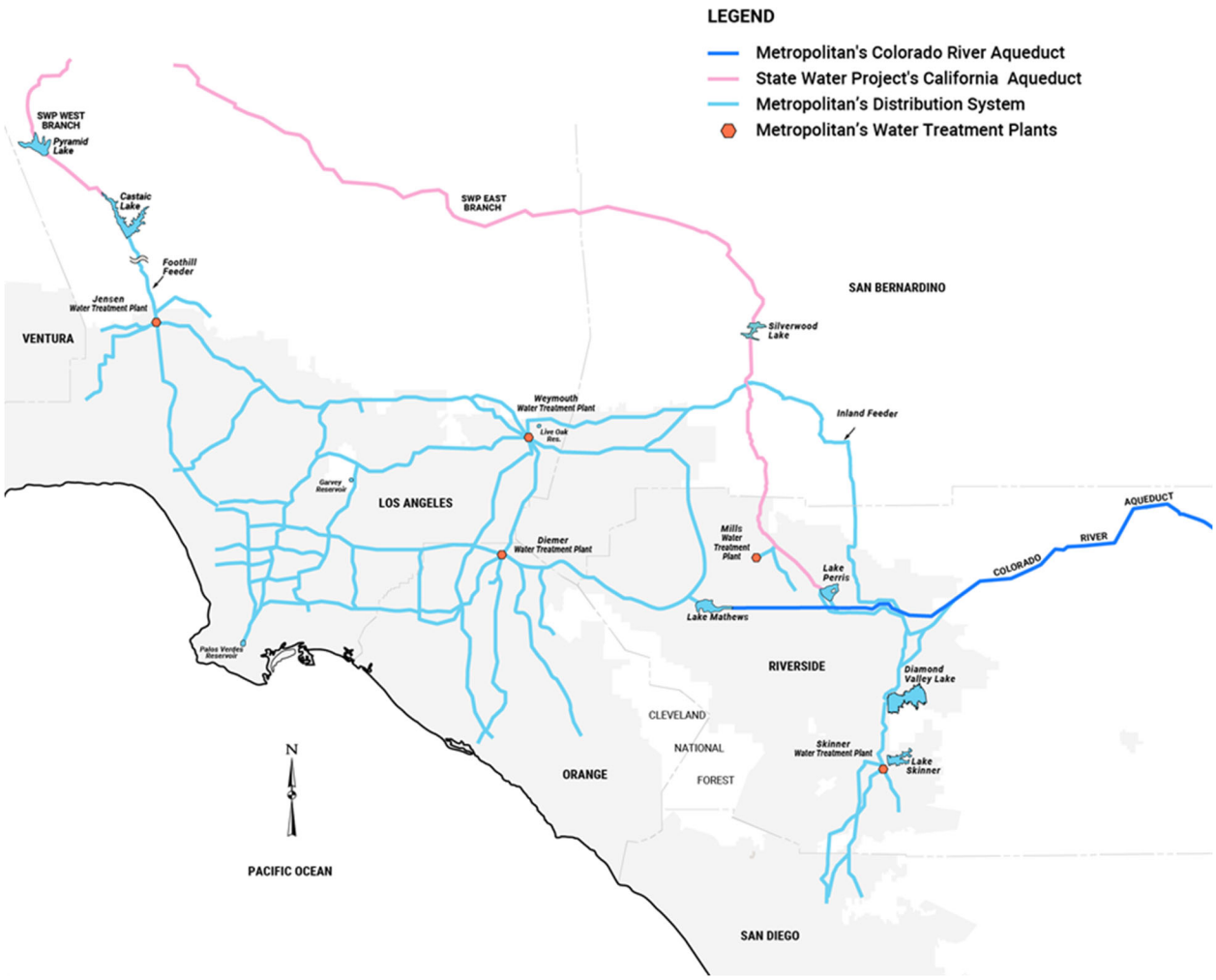
METROPOLITAN'S WATER DELIVERY SYSTEM



Colorado River Aqueduct. Work on the CRA commenced in 1933 and water deliveries started in 1941. Additional facilities were completed by 1961 to meet additional requirements of Metropolitan's member agencies. The CRA is 242 miles long, starting at the Lake Havasu intake and ending at the Lake Mathews terminal reservoir. Metropolitan owns all the components of the CRA, which include five pumping plants, 64 miles of canal, 92 miles of tunnels, 55 miles of concrete conduits, four reservoirs, and 144 underground siphons totaling 29 miles in length. The pumping plants lift the water approximately 1,617 feet over several mountain ranges to Metropolitan's service area. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct" in this Appendix A.

State Water Project. The initial portions of the State Water Project serving Metropolitan were completed in 1973. The State Water Project, managed and operated by DWR, is one of the largest water supply projects undertaken in the history of water development. The State Water Project facilities dedicated to water delivery consist of a complex system of dams, reservoirs, power plants, pumping plants, canals and aqueducts to deliver water. Water from rainfall and snowmelt runoff is captured and stored in State Water Project conservation facilities and then delivered through State Water Project transportation facilities to water agencies and districts located throughout the Upper Feather River, Bay Area, Central Valley, Central Coast, and Southern California. Metropolitan receives water from the State Water Project through the main stem of the aqueduct system, the California Aqueduct, which is 444 miles long and includes 381 miles of canals and siphons, 49 miles of pipelines or tunnels and 13 miles of channels and reservoirs.

As described herein, Metropolitan is the largest (in terms of number of people it serves, share of State Water Project water it has contracted to receive, and percentage of total annual payments made to DWR therefor) of 29 agencies and districts that have entered into contracts with DWR to receive water from the State Water Project. Contractors pay all costs of the facilities in exchange for participation rights in the system. Thus, Contractors also have the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. See "METROPOLITAN'S WATER SUPPLY–State Water Project" in this Appendix A.

Distribution System. Metropolitan's distribution system is a complex network of facilities which routes water from the CRA and State Water Project to Metropolitan's member agencies. The water distribution system includes components that were built beginning in the 1930s and through the present. Metropolitan owns all of these components, including nine reservoirs, five regional treatment plants, over 800 miles of transmission pipelines, feeders and canals, and 15 hydroelectric plants with an aggregate capacity of 130 megawatts.

Diamond Valley Lake. Diamond Valley Lake, a man-made reservoir, built, owned and operated by Metropolitan, is located southwest of the city of Hemet, California. It covers approximately 4,410 acres and has capacity to hold approximately 810,000 acre-feet or 265 billion gallons of water. Imported water is delivered to Diamond Valley Lake during surplus periods. The reservoir provides more reliable delivery of imported water from the State Water Project during summer months, droughts and emergencies. In addition, Diamond Valley Lake can provide more than one-third of Southern California's water needs from storage for approximately six months after a major emergency (assuming that there has been no impairment of Metropolitan's internal distribution network). See the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A for the amount of water in storage at Diamond Valley Lake. Excavation at the project site began in May 1995. Diamond Valley Lake was completed in March 2000, at a total cost of $2 billion, and was in full operation in December 2001.

Inland Feeder. Metropolitan's Inland Feeder is a 44-mile-long conveyance system that connects the State Water Project to Diamond Valley Lake and the CRA. The Inland Feeder provides greater flexibility in managing Metropolitan's major water supplies and allows greater amounts of State Water Project water to be accepted during wet seasons for storage in Diamond Valley Lake. In addition, the Inland Feeder increases the

conveyance capacity from the East Branch of the State Water Project by 1,000 cfs, allowing the East Branch to operate up to its full capacity. Construction of the Inland Feeder was completed in September 2009 at a total cost of $1.14 billion.

Operations Control Center. Metropolitan's water conveyance and distribution system operations are coordinated from the Operations Control Center (the "OCC") centrally located in Los Angeles County. The OCC plans, balances and schedules daily water and power operations to meet member agencies' demands, taking into consideration the operational limits of the entire system.

Water Quality and Treatment

General. Metropolitan filters and disinfects water at five water treatment plants: the F.E. Weymouth Treatment Plant, the Joseph Jensen Treatment Plant, the Henry J. Mills Treatment Plant, the Robert B. Diemer Treatment Plant, and the Robert A. Skinner Treatment Plant. In recent years, the plants typically treat between 0.8 billion and 1.0 billion gallons of water per day and have a maximum capacity of approximately 2.4 billion gallons per day. Approximately 50 percent of Metropolitan's water deliveries are treated water.

During 2021, due to the ongoing COVID-19 pandemic, Metropolitan received force majeure notices from certain of its chemical vendors regarding their inability to fulfill orders as a result of competing demand and supply chain issues. Metropolitan's chemical supplies, however, were not impacted. In addition, the COVID-19 pandemic caused labor shortages, resulting in periodic delays in chemical deliveries. This issue has continued in 2022. Metropolitan monitors its chemical inventories closely and did not experience interruptions in its supplies. However, limited supplies and inflationary pressures have resulted in cost increases.

Metropolitan is operating in compliance with current State and federal drinking water regulations and permit requirements.

Federal and state regulatory agencies routinely identify potential contaminants and establish new water quality standards. Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules. New water quality standards could affect the availability of water and impose significant compliance costs on Metropolitan. The federal Safe Drinking Water Act ("SDWA") establishes drinking water quality standards, monitoring, and public notification and enforcement requirements for public water systems. To achieve these objectives, the U.S. Environmental Protection Agency (the "USEPA"), as the lead regulatory authority, promulgates national drinking water regulations and develops the mechanism for individual states to assume primary enforcement responsibilities. The SWRCB DDW, formerly the Drinking Water Program under the California Department of Public Health, has primary responsibility for the regulation of public water systems in the State. Drinking water delivered to customers must comply with statutory and regulatory water quality standards designed to protect public health and safety. Metropolitan operates its five water treatment plants under a domestic water supply permit issued by DDW, which is amended, as necessary, such as when significant facility modifications occur. Metropolitan operates and maintains water storage, treatment and conveyance facilities, implements watershed management and protection activities, performs inspections, monitors drinking water quality, and submits monthly and annual compliance reports. In addition, public water system discharges to state and federal waters are regulated under general National Pollutant Discharge Elimination System ("NPDES") permits. These NPDES permits, which the SWRCB issued to Metropolitan, contain numerical effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of Metropolitan's water supply and distribution system.

Groundwater. As described herein, Metropolitan has established five groundwater storage programs with other water agencies that allow Metropolitan to store available supplies in the Central Valley for return later. These programs help manage supplies by putting into storage surplus water in years when it is available and converting that to dry year supplies to be returned when needed. These programs can also provide

emergency supplies. See "METROPOLITAN'S WATER SUPPLY–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs" and "–Storage Capacity and Water in Storage" in this Appendix A. Generally, water returned to Metropolitan under these groundwater storage programs ("return water") may be made available in one of two ways: by direct pump back from a groundwater well to the California Aqueduct or, when available, by an exchange with a supply already in the aqueduct. Water quality issues can arise in water returned by direct pumping as a result of the presence of a water quality contaminant in the groundwater storage basin and due to the imposition of stricter water quality standards by federal or State regulation.

In 2017, the SWRCB adopted a regulation setting a Maximum Contaminant Level ("MCL") for TCP of 5 parts per trillion ("ppt") based upon a running annual average. TCP is a manufactured chemical used as a cleaning and degreasing solvent and has been found at industrial and hazardous waste sites. It is also associated with pesticide products used in agricultural practices. In January 2018, the new regulation went into effect. Under the new regulation, drinking water agencies are required to perform quarterly monitoring of TCP. There have been no detections of this chemical in Metropolitan's system. However, TCP has been detected above the MCL in groundwater wells of three of Metropolitan's groundwater storage program partners through monitoring performed by these agencies. Levels detected in groundwater wells of the Arvin-Edison Water Storage District are the highest and impact Metropolitan's ability to put water into storage and take return water under that program. As noted under "METROPOLITAN'S WATER SUPPLY–Water Transfer, Storage and Exchange Programs –State Water Project Agreements and Programs – *Arvin-Edison/Metropolitan Water Management Program*" in this Appendix A, Metropolitan has suspended the return of groundwater from the program until the water quality concerns can be further evaluated and managed. The levels of TCP detected at Metropolitan's other groundwater storage programs are much lower and impact fewer groundwater wells. Metropolitan is evaluating the effects of TCP on the return capability of those programs.

Possible remediation measures include, for example, return water with other surface water supplies, removal of wells from service, return water by exchange, or treatment. Additional capital and/or operation and maintenance costs could be incurred by Metropolitan in connection with remediation options, but the magnitude of such costs is not known at this time. To the extent return water under one or more groundwater storage programs could not be utilized due to groundwater quality, the available supply of stored water during extended drought or emergency periods would be reduced.

Perchlorate. Perchlorate is both a naturally occurring and man-made chemical used in the production of rocket fuel, missiles, fireworks, flares and explosives. It is also sometimes present in bleach and in some fertilizers. Groundwater in the Henderson, Nevada area has been contaminated with perchlorate as a result of two former chemical manufacturing facilities, and there are ongoing remediation programs to mitigate its release into the Las Vegas Wash and the downstream Colorado River. On July 21, 2020, the USEPA withdrew its 2011 determination to regulate perchlorate under the SDWA and issued a new determination that perchlorate does not meet the statutory criteria for regulation. Thus, there is currently no federal drinking water standard for perchlorate, which could potentially affect remediation efforts in the Henderson area. Whether the USEPA should issue a national drinking water standard for perchlorate is the subject of ongoing litigation by the Natural Resources Defense Council, Inc. The case was on hold while the USEPA was reviewing its prior decision not to set a federal MCL for perchlorate. On March 31, 2022, the USEPA concluded that its prior determination not to regulate perchlorate in drinking water is supported by the best available peer reviewed science. The agency will continue to consider: (1) new information on the health effects and occurrence of perchlorate; and (2) if perchlorate should be added to future Contaminant Candidate Lists for possible regulation under the Safe Drinking Water Act. Now that the USEPA has concluded its review, the Natural Resources Defense Council, Inc. is proceeding with its appeal.

California is reviewing its MCL for perchlorate considering a revised Public Health Goal ("PHG") of 1 µg/L adopted in February 2015. PHGs are established by the California Office of Environmental Health Hazard Assessment ("OEHHA") and used as the basis for the development of a State regulation setting an

MCL. The SWRCB is required to set an MCL for a chemical as close to the PHG as is technologically and economically feasible, placing primary emphasis on the protection of public health. DDW is conducting an in-depth risk management analysis to determine whether to revise the perchlorate MCL of 6 µg/L. The detection limit for purposes of reporting (DLR) for perchlorate was lowered to 2 µg/L in July 2021, and it will further be reduced to 1 µg/L in January 2024. If California's MCL for perchlorate is revised to a level less than 6 µg/L, it will be important for the oversight agencies, USEPA and the Nevada Division of Environmental Protection, to ensure that the perchlorate contamination originating at the two former chemical manufacturing facilities in Henderson, Nevada is remediated to a level that minimizes impacts to the Colorado River and that perchlorate concentrations at Metropolitan's Whitsett Intake at Lake Havasu stay at levels below California's MCL. Metropolitan will continue to participate in federal and state rulemaking proceedings.

PFAS. Per- and poly-fluoroalkyl substances ("PFAS") are substances widely used in consumer and industrial products such as fabrics, carpets, firefighting foams, food packaging, and nonstick cookware and are known for their nonstick, waterproof, and heat and stain resistant properties. Perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA") are the two most common synthetic organic chemicals in the group of compounds referred to as PFAS. In August 2019, DDW lowered the notification levels ("NLs") for PFOS from 13 ppt to 6.5 ppt and for PFOA from 14 ppt to 5.1 ppt. NLs are non-regulatory, precautionary health-based measures for concentrations of chemicals in drinking water that warrant notification and further monitoring and assessment. If a chemical concentration is greater than its NL in drinking water that is provided to consumers, DDW recommends that the utility inform its customers and consumers about the presence of the chemical, and about health concerns associated with exposure to it. In February 2020, DDW lowered the response levels ("RLs") for PFOA and PFOS from 70 ppt for individual or combined concentrations to 10 ppt for PFOA and 40 ppt for PFOS. An RL is set higher than an NL and represents a chemical concentration level at which DDW recommends a water system consider taking a water source out of service or providing treatment if that option is available to them. Legislation which took effect on January 1, 2020 (California Assembly Bill 756) requires that water systems that receive a monitoring order from the SWRCB and detect levels of PFAS that exceed their respective RL must either take a drinking water source out of use or provide specified public notification if they continue to supply water above the RL. In March 2021, DDW issued an NL of 0.5 parts per billion ("ppb") and an RL of 5 ppb for perfluorobutane sulfonic acid ("PFBS"), another PFAS chemical.

In July 2021, OEHHA proposed PHGs for PFOA at 0.007 ppt and PFOS at 1 ppt, the next step in the process of establishing MCLs in drinking water. There are currently no federal regulations on the level of PFAS allowed in treated drinking water. The USEPA established non-enforceable and non-regulatory health advisories in 2016 for PFOA and PFOS at single or combined concentrations of 70 ppt in treated drinking water. On January 19, 2021, the USEPA announced that it is considering whether to designate PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") and/or hazardous waste under the Resource Conservation and Recovery Act ("RCRA"). On February 22, 2021, the USEPA announced its proposed revisions to the Fifth Unregulated Contaminant Monitoring Rule ("UCMR 5") for public water systems which includes monitoring for 29 PFAS in drinking water. The proposal would require pre-sampling preparations in 2022, sample collection from 2023-2025, and reporting of final results through 2026. On March 3, 2021, the USEPA published its final regulatory determination to regulate PFOA and PFOS in drinking water. The USEPA has 24 months to propose maximum contaminant level goals ("MCLGs") and MCLs for PFOA and PFOS. Following that deadline, the USEPA has 18 months to publish final MCLGs and MCLs for PFOA and PFOS. On October 18, 2021, the USEPA published a "PFAS Strategic Roadmap: EPA's Commitments to Action, 2021-2024" (PFAS Roadmap). The document outlines four main drinking water actions that the USEPA intends to complete from 2021 to 2024: (1) conduct nationwide monitoring for PFAS in drinking water as part of the UCMR 5 process; (2) establish national primary drinking water regulations for PFOA and PFOS by Fall 2023; (3) publish health advisories for GenX chemicals (hexafluoropropylene oxide dimer acid and its ammonium salt) ("GenX") and PFBS by Spring 2022; and (4) publish updates to PFAS analytical methods to monitor drinking water by Fall 2024. On December 27, 2021, the USEPA published the final UCMR 5. On January 10, 2022, the USEPA

submitted a proposed rule for review to the White House Office of Management and Budget to designate PFOA and PFOS as hazardous substances under CERCLA. On June 15, 2022, the USEPA established new interim, updated health advisories for PFOA and PFOS to replace the health advisories established in 2016 until the national primary drinking water regulations for PFOA and PFOS are developed and implemented. The non-enforceable and non-regulatory interim, updated lifetime health advisories for PFOA and PFOS in drinking water are established at concentrations of 0.004 ppt and 0.02 ppt, respectively. In its announcement, the USEPA noted that such concentrations are below the ability to detect under current detection methods. On June 15, 2022, the USEPA also established final health advisories for GenX and PFBs. Metropolitan will continue to monitor and participate in federal and state rulemaking proceedings.

PFOA and PFBS have not been detected in Metropolitan's imported or treated water supplies. In 2019, 2020, and 2021, Metropolitan detected in its supplies low levels of PFHxA, which is not acutely toxic or carcinogenic and is not currently regulated in California or at the federal level. In 2021, Metropolitan detected for the first time in its supplies low levels of perfluorobutanoic acid ("PFBA"), perfluoropentanoic acid ("PFPeA"), and PFOS. The concentrations detected to date are below the State's reporting values, which means they are considered "not-detected."

Metropolitan has not identified any specific sources of these PFAS in its supplies, but PFHxA is a common PFAS believed to be an impurity that is inadvertently produced during the manufacture of other PFAS. It is also a breakdown product from lubricants, coatings on food packaging, and household products. PFOS is widely used in surface treatments of carpets, textiles, leather, paper, and cardboard, as a surfactant in extinguishing foams, as a mist suppressant in chrome plating, and as a surfactant in the mining and oil industries. PFBA is a breakdown product of other PFAS that are used in stain-resistant fabrics, paper food packaging, and carpets; it is also used for manufacturing photographic film. It has been used as a substitute for longer chain perfluoroalkyl carboxylic acids in consumer products. PFPeA is a breakdown product of stain- and grease-proof coatings on food packaging, couches, and carpets. Metropolitan has not identified any specific sources of PFAS that have reached its water supplies and the concentrations detected to date are well below the State's required reporting values. PFOA and PFOS have also been detected in groundwater wells in the region, including those of certain member agencies. Metropolitan may experience increased demands for its imported water to help offset the potential loss of any affected local supplies.

Seismic Considerations and Emergency Response Measures

General. Metropolitan's system overlays a region of high seismicity. The conveyance and distribution systems traverse numerous faults capable of generating large magnitude earthquakes and some of Metropolitan's treatment plants, pressure control facilities, and other structures have the potential of experiencing high levels of earthquake-induced shaking. To mitigate this risk, Metropolitan routinely assesses the seismic hazards and potential risks to its facilities. It makes strategic investments through projects to limit overall system damage, improve post-earthquake recovery time, and reduce the impacts felt by the population and businesses. Metropolitan's strategy utilizes a defense-in-depth approach to prepare for and respond to the event adequately. Metropolitan's defense-in-depth approach includes the following priorities: (1) provide a diversified water supply portfolio, increase system flexibility, and maintain adequate levels of emergency storage to be able to withstand the potential disruption of imported supplies (2) prevent damage to water delivery infrastructure in probable seismic events and limit damage in extreme events through the systematic review and upgrade of facilities for which deficiencies are identified and (3) minimize the duration of water delivery interruptions through a dedicated emergency response and recovery organization, including in-house design, construction, and fabrication capability.

As part of its goal to increase the diversification of the local water portfolio, Metropolitan has provided monetary assistance to member agencies to develop new local water supplies. Increased and improved diversification of local supplies also improves the region's reliability in the event of a significant seismic event. In addition, Metropolitan is evaluating the feasibility of implementing a RRWP. See "REGIONAL WATER RESOURCES–Local Water Supplies –*Recycled Water-Metropolitan Regional Recycled Water Program*" in

this Appendix A. If completed, it is expected that the RRWP would provide up to 150 million gallons per day of advanced treated recycled water for groundwater replenishment. The program, if completed, could provide an additional reliable water source within Metropolitan's service area in the event of an interruption of imported supplies.

In 2000, Metropolitan completed Diamond Valley Lake, an 810,000-acre-foot capacity reservoir located on the coastal side of the San Andreas Fault. With the completion of Diamond Valley Lake, Metropolitan nearly doubled its available in-region surface storage and improved its ability to capture water from Northern California in wet years. Water from Diamond Valley Lake can supply four of Metropolitan's five water treatment plants. Diamond Valley Lake, along with the other in-region reservoirs, are used to maintain a six-month emergency storage reserve outside of the operational storage in case of disruption of the imported water supplies. See "–Primary Facilities and Method of Delivery *–Diamond Valley Lake*."

Metropolitan has developed a Seismic Upgrade Program to systematically evaluate its above-ground facilities for seismic risk and prioritize its upgrade effort. Structures undergo an initial rapid evaluation and, if a potential deficiency is identified, will then undergo a detailed structural evaluation to assess the required upgrades. Deficient facilities are upgraded to meet current seismic standards based on criticality to the water delivery system. Previous projects include seismic upgrades to the pump plant buildings for the CRA and upgrades to various facilities at Metropolitan's treatment plants, such as wash water tanks, filter basins, and administration buildings. For existing pipelines, seismic resilience will be incorporated as a component of pipeline rehabilitation projects. Metropolitan will evaluate each upgrade individually to balance risk, performance, and cost. Metropolitan is currently implementing a 20-year program to replace or reline its prestressed concrete cylinder pipe with a welded steel pipe. Providing a steel liner insert will improve the seismic performance of these pipelines. In addition, Metropolitan is currently installing earthquake-resistant ductile iron pipe at a location where the CRA crosses the Casa Loma Fault.

Metropolitan has an ongoing surveillance program that monitors the safety and structural performance of its dams and reservoirs permitted by DWR's Division of Safety of Dams. Operating personnel perform regular inspections that include monitoring and analyzing seepage flows and pressures. Engineers responsible for dam safety review the inspection data and monitor each dam's horizontal and vertical movements. Major on-site inspections are performed at least twice each year. Instruments that transmit seismic acceleration time histories for analysis are installed at critical sites when a dam is subjected to strong motion during an earthquake.

Metropolitan has developed an emergency plan that calls for specific response levels appropriate to an earthquake's magnitude and location. Included in this plan are various communication tools, as well as a structured plan of management that varies with the severity of the event. Pre-designated personnel follow detailed steps for field facility inspection and distribution system patrol. Approximately 200 employees are designated to respond immediately if seismic events exceed a certain magnitude. An Emergency Operations Center ("EOC") is maintained at the OCC. The OCC/EOC, specifically designed to be earthquake resistant, contains communication equipment, including a radio transmitter, microwave capability, and a response line linking Metropolitan with its member agencies, and DWR. The OCC/EOC also has the capability of communicating with other utilities, County EOCs, and the State's Office of Emergency Services. Metropolitan also maintains in-house capability to address two major pipeline breaks simultaneously as part of its emergency response plan to restore operation shortly after a significant seismic event.

In conjunction with DWR and LADWP, Metropolitan has formed the Seismic Resilience Water Supply Task Force to collaborate on studies and mitigation measures aimed at improving the reliability of imported water supplies to Southern California. Specific task force goals include revisiting historical assumptions regarding potential aqueduct outages after a seismic event; establishing a common understanding about individual agency aqueduct vulnerability assessments, projected damage scenarios, and planning assumptions; and discussing ideas for improving the resiliency of Southern California's imported water

supplies through multi-agency cooperation. The task force has established multi-year goals and will continue to meet on these issues and develop firm plans for mitigating seismic vulnerabilities.

Metropolitan's resiliency efforts include manufacturing, pipe fabrication, and coating capabilities in La Verne, California. Over $47 million has been invested and an additional $25 million is planned over the next two years to enhance and expand Metropolitan's capacity to provide fabrication, manufacturing, and coating services for rehabilitation work, maintenance activities, and capital projects. Metropolitan can also provide manufacturing, coating, and fabrication services upon request through reimbursable agreements to member agencies and DWR. These agreements have enhanced timely and cost-effective emergency response capabilities. Materials to fabricate pipe and other appurtenant fittings are kept on site. In the event of earthquake damage, Metropolitan has taken measures to provide the capacity to design and fabricate pipe and manufacture fittings. Metropolitan is also staffed to perform emergency repairs.

The Department of Water Resources has in place a seismic assessment program that evaluates the State Water Project's vulnerability to seismic events and makes recommendations for improvements. An example of a recently completed project under this program is the Perris Dam Retrofit. The assessment is important because the California Aqueduct crosses many major faults. The State Water Project delivers water supplies from Northern California that must traverse the Bay-Delta through hundreds of miles of varying levels of engineered levees that are potentially susceptible to significant damage due to flood and seismic risk. In the event of a failure of the Bay-Delta levees, the quality of the Bay-Delta's water could be severely compromised as saltwater comes in from the San Francisco Bay. Metropolitan's supply of State Water Project water would be adversely impacted if pumps that move Bay-Delta water southward to the Central Valley and Southern California are shut down to contain the saltwater intrusion. Metropolitan estimates that stored water supplies, CRA supplies and local water resources that would be available in case of a levee breach or other interruption in State Water Project supplies would meet demands in Metropolitan's service area for approximately six months. See "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A.

Metropolitan, in cooperation with the other State Water Contractors, developed recommendations to DWR for emergency preparedness measures to maintain continuity in export water supplies and water quality during seismic and other emergency events. These measures include improvements to emergency construction materials stockpiles in the Bay-Delta, improved emergency contracting capabilities, strategic levee improvements and other structural measures of importance to Bay-Delta water export interests, including development of an emergency freshwater pathway to export facilities in a severe earthquake.

Wildfires Risk Management Response

Wildfires are an ever-present reality in Southern California. Metropolitan continues to actively prepare for wildfires by collaborating with partner agencies such as the California Department of Forestry and Fire Protection (Cal Fire), DWR, and counties to implement preparedness measures to protect watersheds. Examples of these efforts include removing brush from fire prone areas, as well as removing by-products of large fires such as ash, fire retardant, and other debris that could negatively affect water quality. Metropolitan also collaborates frequently with its member agencies and first-responders from other public agencies. This collaboration includes coordination with local fire departments during and after nearby wildfire events, as well as participating in joint training and exercises throughout the year. Additionally, Metropolitan has a five-year exercise plan that provides member agencies the opportunity to exercise together before a disaster happens. Metropolitan tests its emergency communications processes through regular tests of emergency radio networks, satellite phones, mass-communication alerting systems, and online information sharing systems.

Metropolitan has also implemented measures to protect employees from the impacts of wildfires such as upgrading HVAC systems in control centers to improve the filtration of smoke and other pollutants; and sending emergency notifications to employees to warn them of unhealthy air quality due to nearby fires.

Security Measures

Metropolitan's water and energy facilities are federally-determined critical infrastructure. Metropolitan deploys multiple layers of physical security and collaborates with federal and state partners to mitigate malevolent threats. It manages a physical security system consisting of electronic access controls, a surveillance and intrusion warning system, and a round-the-clock security watch center. It maintains professional, in-house security specialists and retains a 200+ contract security guard force. It directs a capital improvement program to harden physical infrastructure. It collaborates with key federal and state security partners, which entails on-site consultations, inter-agency mock exercises, real-time monitoring, and first response coordination. It follows the chain-of-custody protocols of the FERC and the North American Electric Reliability Corporation. Finally, it complies with the Bioterrorism Response Act of 2002, the DHS Chemical Facility Anti-Terrorism Standards, and the America's Water Infrastructure Act of 2018.

CAPITAL INVESTMENT PLAN

General Description

Metropolitan's current Capital Investment Plan (the "Capital Investment Plan" or "CIP") describes Metropolitan's infrastructure and system reliability projects, either as upgrades to existing capital assets or replacements and refurbishments of existing facilities. The CIP is Metropolitan's planning document to ensure asset reliability, enhance operational efficiency and flexibility, and ensure compliance with water quality regulations.

Metropolitan's CIP is regularly reviewed and updated. Metropolitan's biennial budget process includes a review of the projected long-term capital needs and the development of a capital expenditure forecast for the ten-year financial forecast, as well as the identification of the capital priorities of Metropolitan over the biennial budget term. The award of major contracts and professional services agreements are subject to approval by Metropolitan's Board. Pursuant to the Administrative Code, following the adoption of the biennial budget, a Board action is presented to (1) appropriate the total amount of approved biennial CIP expenditures and (2) authorize the General Manager to initiate or proceed with work on capital projects identified in the CIP for such biennial period. The amount and timing of borrowings to fund capital expenditures will depend upon the status of construction activity and water demands within Metropolitan's service area, among other factors. From time to time, projects that have been undertaken are delayed, redesigned, or deferred by Metropolitan for various reasons, and no assurance can be given that a project in the CIP will be completed in accordance with its original schedule or that any project will be completed as currently planned. In addition, from time to time, when circumstances warrant, Metropolitan's Board may approve capital expenditures other than or in addition to those contemplated by the CIP at the time of the then current biennial budget.

Projection of Capital Investment Plan Expenditures

The table below sets forth the projected CIP expenditures by project type for the fiscal years ending June 30, 2022 through 2027, as currently projected for fiscal year 2021-22, and as reflected in the biennial budget for fiscal years 2022-23 and 2023-24 for fiscal years 2022-23 through 2026-27. The projection for the current biennium, which covers fiscal years 2020-21 and 2021-22, is updated every month to reflect the most current changes to planned expenditures. The biennial budget is updated every two years as a result of the periodic review and adoption of the capital budget by Metropolitan's Board. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

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CAPITAL INVESTMENT PLAN
PROJECTION OF EXPENDITURES[1]
(Fiscal Years Ended June 30 - Dollars in Thousands)

	2022	2023	2024	2025	2026	2027	Total
Infrastructure R&R	$ 97,004	$ 86,978	$ 69,899	$ 93,869	$ 90,736	$ 82,979	$ 521,465
Infrastructure Upgrade	78,557	161,080	162,713	158,939	166,068	181,000	908,357
Regulatory Compliance	481	561	0	0	0	0	1,042
Stewardship	3,753	11,907	6,830	8,568	12,514	21,230	64,802
Supply Reliability	0	4,967	2,697	68,945	63,402	147,995	288,006
System Flexibility	19,444	30,531	41,582	40,566	48,262	42,131	222,516
Water Quality	2,261	3,976	16,279	935	110	0	23,561
Total	$201,500[2]	$300,000	$300,000	$371,822	$381,092	$475,335	$2,029,749

Source: Metropolitan.

(1) Fiscal year 2021-22 is based on current projections. Fiscal years 2022-23 through 2026-27 are based on the ten-year financial forecast provided in the biennial budget for fiscal years 2022-23 and 2023-24.

(2) Planned capital expenditures of $250 million per year were appropriated for fiscal years 2020-21 and 2021-22. Projected capital expenditures for fiscal year 2021-22 in the table above reflect current projections as to the timing of expenditure of the appropriated funds.

In developing the CIP, projects are reviewed, scored, and prioritized towards the objectives of ensuring the sustainable delivery of reliable, high-quality water, while meeting all regulatory requirements and maintaining affordability. Additional capital costs may arise in the future as a result of, among other things, federal and State water quality regulations, project changes and mitigation measures necessary to satisfy environmental and regulatory requirements, and additional facilities' needs. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Quality and Treatment" in this Appendix A.

Construction projects included in the CIP are subject to ordinary construction risks and delays, including but not limited to: inclement weather or natural hazards affecting work and timeliness of completion; contractor claims or nonperformance; work stoppages or slowdowns; unanticipated project site conditions encountered during construction; errors or omissions in contract documents requiring change orders; and/or higher than anticipated construction bids or costs (including as a result of steeper inflationary increases), any of which could affect the costs and availability of, or delivery schedule for, equipment, components, materials, labor or subcontractors, and result in increased CIP costs. The construction schedules for certain Metropolitan projects were initially delayed as a result of the COVID-19 outbreak and some projects continue to be delayed due to supply chain issues and other geopolitical conditions. Although not currently anticipated, additional delays in the future are possible. See "GOVERNANCE AND MANAGEMENT–COVID-19 Pandemic" in this Appendix A.

Capital Investment Plan Financing

The CIP requires debt financing (see "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A) as well as pay-as-you-go funding. In connection with the biennial budget process and the development of the ten-year financial forecast provided therein, an internal funding objective is established for the funding of capital program expenditures from current revenues. An internal funding objective to fund 45 percent of capital program expenditures from current revenues was established in connection with the adoption of the biennial budget for fiscal years 2022-23 and 2023-24. This objective is updated every two years as a result of the periodic review and adoption of the capital budget by Metropolitan's Board. The remainder of capital program expenditures are expected to be funded through the issuance from time to time of water revenue bonds, which are payable from Net Operating Revenues. However, as in prior years, pay-as-you-go funding or debt financing may be reduced or increased by the Board at any time.

Projections for fiscal years 2022-23 through 2026-27 assume the issuance of approximately $1,040 million of additional water revenue bonds over such period to finance the CIP. These revenue bonds may be issued either as Senior Revenue Bonds under the Senior Debt Resolutions or as Subordinate Revenue Bonds under the Subordinate Debt Resolutions (each as defined under "METROPOLITAN EXPENSES– Limitations on Additional Revenue Bonds" in this Appendix A). The cost of these projected bond issues is reflected in the financial projections under "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Major Projects of Metropolitan's Capital Investment Plan

Colorado River Aqueduct Facilities. As previously noted, deliveries through the CRA began in 1941. Through annual inspections and maintenance activities, the performance and reliability of the various components of the CRA are regularly evaluated. Projects under the CRA facilities program are designed to replace or refurbish facilities and components on the CRA system in order to reliably convey water from the Colorado River to Southern California. The current projected cost estimate for all prior and planned refurbishment or replacement projects under the CRA facilities program from fiscal year 1998-99 through fiscal year 2031-32 is $807.2 million. Costs through February 2022 were $406.8 million. Budgeted aggregate capital expenditures for improvements on the CRA for fiscal years 2022-23 and 2023-24 are $76.2 million.

Distribution System – Prestressed Concrete Cylinder Pipe. Metropolitan's distribution system is comprised of approximately 830 miles of pipelines ranging in diameter from 30 inches to over 200 inches. (See "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A.) There are 163 miles of the distribution system that is made up of prestressed concrete cylinder pipe ("PCCP"). In response to PCCP failures experienced by several water agencies, Metropolitan initiated the PCCP Assessment Program in December 1996 to evaluate the condition of Metropolitan's PCCP lines and investigate inspection and refurbishment methods. As part of this program, Metropolitan made improvements to several sections of PCCP. Rather than continue to make spot repairs to the pipe segments, Metropolitan initiated a long-term capital program to rehabilitate approximately 100 miles of PCCP in five pipelines by relining with a welded steel liner. Significant projects over the next several years include relining of portions of Second Lower and Sepulveda Feeders. The estimated cost to reline all 100 miles of PCCP is approximately $4.3 billion. Through February 2022, approximately 11.5 miles have been re-lined and it is expected to take approximately 30 years to complete the remainder of the pipelines. Costs through February 2022 for all PCCP work (including the prior repairs) were $301.0 million. Budgeted aggregate capital expenditures for PCCP rehabilitation for fiscal years 2022-23 and 2023-24 are $104.4 million.

Distribution System – Refurbishments and Improvements. In addition to the long-term program to rehabilitate Metropolitan's PCCP lines, several other components of the distribution system, including dams and reservoirs, are being refurbished and/or improved. Significant projects over the next several years include retrofitting of the distribution system to improve resiliency against earthquake; rehabilitation of reservoirs, relining of pipelines; and refurbishment of pump stations, pressure control structures, hydroelectric plants, and service connections. The projected cost estimate for refurbishment or replacement projects, other than the PCCP relining, from fiscal year 2004-05 through fiscal year 2031-32 is $1.0 billion. Costs through February 2022 totaled approximately $452.7 million. For fiscal years 2022-23 and 2023-24, budgeted aggregate capital expenditures for refurbishing and improvements on the distribution system, other than PCCP rehabilitation, are $114.0 million.

Drought Response and System Flexibility. In response to the ongoing historic statewide drought, several drought response projects that address decreasing water supplies both in specific parts of Metropolitan's service area and across the entire District have been added to the CIP. This is in addition to the ongoing projects to increase the system flexibility of Metropolitan's water supply and delivery infrastructure to meet service demands. Metropolitan continues investigating capital improvements that mitigate drought impacts and more projects are expected to be developed in the coming years. Some of the projects commenced in fiscal year 2021-22. Significant projects in this category include Inland Feeder-Rialto Pipeline Intertie,

Wadsworth Pump Discharge to Eastside Pipeline Bypass, West Area Water Supply Reliability Improvements, and Perris Valley Pipeline Tunnels. The current projected cost estimate for the prior and planned drought response and system flexibility projects from fiscal year 2004-05 through fiscal year 2031-32 is $631.3 million, with $197.6 million spent through February 2022 for improving system flexibility. Budgeted aggregate capital expenditures for drought response and system flexibility projects for fiscal years 2022-23 and 2023-24 are $75.0 million.

System Reliability. System Reliability projects are implemented at facilities throughout Metropolitan's system to utilize new processes or technologies, to improve safety, or to increase overall reliability. Significant projects in this category include seismic strengthening of Metropolitan's headquarters building, construction or improvement of operations support facilities, security system enhancements, control system upgrades, and information technology infrastructure projects. The total estimated cost for all prior and projected system reliability improvements under this program from fiscal year 2004-05 to fiscal year 2031-32 is approximately $771.0 million, with $295.2 million spent through February 2022. Budgeted aggregate capital expenditures for improvements on system reliability projects for fiscal years 2022-23 and 2023-24 are $86.2 million.

Water Treatment Plant Improvements. The F. E. Weymouth Water Treatment Plant, which was placed into service in 1941, is Metropolitan's oldest water treatment facility. Four more water treatment plants were constructed throughout Metropolitan's service area with the Henry J. Mills Water Treatment Plant being the newest water treatment facility, which was placed into service in 1978. These plants treat water from the Colorado River Aqueduct and/or the State Water Project. These plants have been subsequently expanded since their original construction. Metropolitan has completed numerous upgrades and refurbishment/replacement projects to maintain the plants' reliability and improve efficiency. Significant projects over the next several years include refurbishment of settling basins and strengthening of inlet channels at the Weymouth plant, rehabilitation of filtration system at the Robert B. Diemer Water Treatment Plant, second stage of electrical upgrades at the Mills plant, ozonation system upgrade at the Joseph Jensen Water Treatment Plant, and chemical system rehabilitation at the Robert A. Skinner Plant. The cost estimate for all prior and projected improvements at all five plants, not including the ozone facilities and water treatment capacity expansions, from fiscal year 2004-05 through fiscal year 2031-32 is approximately $1.3 billion, with $1.1 billion spent through February 2022. Budgeted aggregate capital expenditures for improvements at all five plants for fiscal years 2022-23 and 2023-24 are $42.1 million.

METROPOLITAN REVENUES

General

Until water deliveries began in 1941, Metropolitan's activities were, by necessity, supported entirely through the collection of *ad valorem* property taxes. Since the mid-1980s, water revenues, which includes revenues from water sales, wheeling and exchanges, have provided approximately 80 percent of total revenues annually. Over that period, *ad valorem* property taxes have accounted for about 9 percent of total revenues, and in the fiscal year 2020-21, *ad valorem* property taxes accounted for approximately 9 percent of total revenues. See "–Revenue Allocation Policy and Tax Revenues." The remaining revenues have been derived principally from the sale of hydroelectric power, interest on investments, and additional revenue sources (water standby charges and availability of service charges) beginning in 1992. *Ad valorem* taxes do not constitute a part of Operating Revenues and are not available to make payments with respect to the water revenue bonds issued by Metropolitan.

The basic rate for untreated water service for domestic and municipal uses is $799 per acre-foot at the Tier 1 level, which became effective January 1, 2022. See "–Rate Structure" and "–Water Rates." The *ad valorem* tax rate for Metropolitan purposes has gradually been reduced from a peak equivalent rate of 0.1250 percent of full assessed valuation in fiscal year 1945-46 to 0.0035 percent of full assessed valuation for fiscal year 2021-22. The rates charged by Metropolitan represent the cost of Metropolitan's wholesale water

service to its member agencies, and not the cost of water to the ultimate consumer. Metropolitan does not exercise control over the rates charged by its member agencies or their subagencies to their customers.

Summary of Revenues by Source

The following table sets forth Metropolitan's sources of revenues for the five fiscal years ended June 30, 2021, on a modified accrual basis. All information is unaudited. Audited financial statements for the fiscal years ended June 30, 2021, and June 30, 2020, are included in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)."

SUMMARY OF REVENUES BY SOURCE[1]
Fiscal Years Ended June 30
(Dollars in Millions)

	2017	2018	2019	2020	2021
Water Revenues[2]	$1,151	$1,285	$1,149	$1,188	$1,405
Taxes, Net[3]	116	131	145	147	161
Additional Revenue Sources[4]	184	172	170	165	165
Interest on Investments	4	8	34	20	10
Hydroelectric Power Sales	21	24	18	16	19
Other Revenues[5]	51	28	22	14	14
Total Revenues	$1,527	$1,648	$1,538	$1,550	$1,774

Source: Metropolitan.

(1) Does not include any proceeds from the sale of bonded indebtedness.
(2) Water revenues include revenues from water sales, exchanges, and wheeling.
(3) *Ad valorem* taxes levied by Metropolitan are applied solely to the payment of outstanding general obligation bonds of Metropolitan and to State Water Contract obligations.
(4) Includes revenues derived from water standby charges, readiness-to-serve, and capacity charges.
(5) Includes miscellaneous revenues and Build America Bonds (BABs) subsidy payments of $9.8 million, $15.0 million, $12.5 million, $2.9 million and $2.9 million in fiscal years 2016-17 through 2020-21, respectively. All of Metropolitan's BABs were retired as of July 1, 2020. Fiscal years 2016-17 and 2017-18 include $33 million, and $1 million, respectively, of water conservation and supply program expenses, funded from a like amount of funds transferred from the Water Management Fund.

Revenue Allocation Policy and Tax Revenues

The Board determines the water revenue requirement for each fiscal year after first projecting the *ad valorem* tax levy for that year. The tax levy for any year is subject to limits imposed by the State Constitution, the Act and Board policy and to the requirement under the State Water Contract that in the event that Metropolitan fails or is unable to raise sufficient funds by other means, Metropolitan must levy upon all property within its boundaries not exempt from taxation a tax or assessment sufficient to provide for all payments under the State Water Contract. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. Beginning with fiscal year 1990-91, the Act limits Metropolitan's tax levy to the amount needed to pay debt service on Metropolitan's general obligation bonds and to satisfy a portion of Metropolitan's State Water Contract obligation. However, Metropolitan has the authority to impose a greater tax levy if, following a public hearing, the Board finds that such revenue is essential to Metropolitan's fiscal integrity. For each fiscal year since 2013-14, the Board has exercised that authority and voted to suspend the tax limit clause in the Act, maintaining the fiscal year 2012-13 *ad valorem* tax rate to pay for a greater portion of Metropolitan's State Water Contract obligations. Any deficiency between tax levy receipts and Metropolitan's State Water Contract obligations is expected to be paid from Operating Revenues, as defined in the Senior Debt Resolutions (defined in this Appendix A under "METROPOLITAN EXPENSES–Limitations on Additional Revenue Bonds").

Water Revenues

General; Authority. Water rates are established by the Board and are not subject to regulation or approval by the California Public Utilities Commission or by any other local, State, or federal agency. In accordance with the Act, water rates must be uniform for like classes of service. Metropolitan, a wholesaler, provides two types of services: full-service water service (treated or untreated) and wheeling service. See "–Classes of Water Service."

No member agency of Metropolitan is obligated to purchase water from Metropolitan. However, 21 of Metropolitan's 26 member agencies have entered into 10-year voluntary water supply purchase orders ("Purchase Orders") effective through December 31, 2024. See "–Member Agency Purchase Orders." Consumer demand and locally supplied water vary from year to year, resulting in variability in water revenues. See "REGIONAL WATER RESOURCES" in this Appendix A. Metropolitan uses its financial reserves and budgetary tools to manage the financial impact of the variability in revenues due to fluctuations in annual water transactions. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Payment Procedure. Water is delivered to the member agencies on demand and is metered at the point of delivery. Member agencies are billed monthly and a late charge of one percent of the delinquent payment is assessed for a payment that is delinquent for no more than five business days. A late charge of two percent of the amount of the delinquent payment is charged for a payment that is delinquent for more than five business days for each month or portion of a month that the payment remains delinquent. Metropolitan has the authority to suspend service to any member agency delinquent for more than 30 days. Delinquencies have been rare; in such instances late charges have been collected. No service has been suspended because of delinquencies.

Water Revenues. The following table sets forth water transactions (which includes water sales, exchanges, and wheeling) in acre-feet and water revenues (which includes revenues from water sales, exchanges, and wheeling) for the five fiscal years ended June 30, 2021, on a modified accrual basis. As reflected in the table below, water revenues for the fiscal year ended June 30, 2021, aggregated $1,404.7 million, of which $1,237.7 million was generated from water sales and $167.0 million was generated from exchanges and wheeling. Water revenues of Metropolitan for the fiscal years ended June 30, 2021, and June 30, 2020, on an accrual basis, are shown in Metropolitan's audited financial statements included in Appendix B.

SUMMARY OF WATER TRANSACTIONS AND REVENUES
Fiscal Years Ended June 30

Fiscal Year	Water Transactions in Acre-Feet[1]	Water Revenues[2] (in millions)	Dollars Per Acre-Foot	Average Dollars Per 1,000 Gallons
2017	1,540,915	$1,150.5	$747	$2.29
2018	1,610,969	1,285.2	798	2.45
2019	1,418,324	1,148.7	810	2.49
2020	1,419,156	1,188.0	837	2.57
2021	1,573,965	1,404.7	892	2.74

Source: Metropolitan.

(1) Water Transactions include water sales, exchanges, and wheeling with member agencies and third parties. Starting in fiscal year ended June 30, 2021, Water Transactions do not include third parties.

(2) Water Revenues include revenues from water sales, exchanges, and wheeling. Water Revenues from wheeling and exchange transactions were $87.4 million, $96.1 million, $102.2 million, $140.1 million, and $167.0 million in the fiscal years ended June 30, 2017 through 2021, respectively.

Principal Customers

Total water transactions accrued for the fiscal year ended June 30, 2021, were 1.57 million acre-feet, generating $1.40 billion in water revenues for such period. Metropolitan's ten largest water customers for the year ended June 30, 2021 are shown in the following table, on an accrual basis. SDCWA has filed litigation challenging Metropolitan's rates. See "–Litigation Challenging Rate Structure."

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2021
Accrual Basis

Agency	Water Revenues [1] (in Millions)	Percent of Total	Water Transactions in Acre Feet[2]	Percent of Total
City of Los Angeles [3]	$ 268.2	19.1%	316,537	20.1%
San Diego CWA	201.3	14.3	335,760	21.3
MWD of Orange County	142.7	10.2	140,558	8.9
West Basin MWD	118.1	8.4	108,250	6.9
Calleguas MWD	104.0	7.4	95,365	6.1
Eastern MWD	90.9	6.5	91,462	5.8
Western MWD of Riverside County	72.4	5.2	74,783	4.8
Three Valleys MWD	62.5	4.4	66,540	4.2
Inland Empire Utilities Agency	54.5	3.9	71,347	4.5
Upper San Gabriel Valley MWD	47.1	3.4	60,036	3.8
Total	$ 1,161.7	82.7%	1,360,638	86.4%
Total Water Revenues [1]	$1,404.7	**Total Acre-Feet [2]**	1,573,965	

Source: Metropolitan.

(1) Water Revenues include revenues from water sales, exchanges, and wheeling.
(2) Water Transactions include water sales, exchanges, and wheeling with member agencies.
(3) Water sales to the City of Los Angeles from Metropolitan can vary substantially from year-to-year. See "REGIONAL WATER RESOURCES – Los Angeles Aqueduct" in this Appendix A.

Rate Structure

The following rates and charges are elements of Metropolitan's unbundled rate structure. See also "–Water Rates."

Tier 1 and Tier 2 Water Supply Rates. The rate structure recovers supply costs through a two-tiered price structure. The Tier 1 Supply Rate supports a regional approach through the uniform, postage stamp rate. The Tier 1 Supply Rate is calculated as the amount of the total supply revenue requirement that is not covered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. The Tier 2 Supply Rate is a volumetric rate that reflects Metropolitan's cost of purchasing water transfers north of the Delta. The Tier 2 Supply Rate encourages the member agencies and their customers to maintain existing local supplies and develop cost-effective local supply resources and conservation. Pursuant to Board direction in November 2021, all demand management costs comprise a portion of the costs of supply and are collected on the Tier 1 and Tier 2 supply rates. Member agencies are charged the Tier 1 or Tier 2 Water Supply Rate for water purchases, as described under "–Member Agency Purchase Orders" below.

System Access Rate. The System Access Rate recovers the cost of the conveyance, distribution, and storage of water on an average annual basis through a uniform, volumetric rate. The System Access Rate is charged for each acre-foot of water transported by Metropolitan, regardless of the ownership of the water being

transported. All users (including member agencies and third-party wheelers) using Metropolitan's water system to transport water pay the same System Access Rate for the use of the system conveyance and distribution capacity to meet average annual demands.

Water Stewardship Rate. The Water Stewardship Rate was designed to provide a dedicated source of funding for conservation and local resources development through a uniform, volumetric rate. The Water Stewardship Rate was charged on each acre-foot of water delivered by Metropolitan through December 31, 2020, except on SDCWA Exchange Agreement deliveries as explained below, and allocated to Metropolitan's transportation rates. All users (including member agencies and third-party wheelers) benefitted from avoided system infrastructure costs through conservation and local resources development, and from the system capacity made available by investments in demand management programs like Metropolitan's Conservation Credits Program and LRP. Therefore, all users paid the Water Stewardship Rate, except on water delivered to SDCWA pursuant to the Exchange Agreement (see "–Water Rates" and "–Litigation Challenging Rate Structure" below) in calendar years 2018, 2019, and 2020. The Water Stewardship Rate was not incorporated into Metropolitan's rates and charges for calendar years 2021 and 2022 and therefore has not been collected on any water transactions after December 31, 2020. In November 2021, the Board directed staff to allocate all demand management costs as an element of Metropolitan's supply costs. See also "CONSERVATION AND WATER SHORTAGE MEASURES–General" in this Appendix A.

In 2017, in *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.* (see "–Litigation Challenging Rate Structure" below), the Court of Appeal held that the administrative record before it for the rates in calendar years 2011 through 2014 did not support Metropolitan's Water Stewardship Rate full allocation to transportation rates, but the court did not address the allocation in subsequent years based on a different record. On April 10, 2018, the Board suspended the billing and collection of the Water Stewardship Rate on Exchange Agreement deliveries to SDCWA in calendar years 2018, 2019, and 2020, pending Metropolitan's completion of a cost allocation study of its demand management costs recovered through the Water Stewardship Rate. For calendar year 2018, the suspension was retroactive to January 1, 2018.

Having completed a demand management cost allocation process, on December 10, 2019, Metropolitan's Board directed staff to incorporate the use of the 2019-20 fiscal year-end balance of the Water Stewardship Fund to fund demand management costs in the proposed biennial budget for fiscal years 2020-21 and 2021-22 and to not incorporate the Water Stewardship Rate (or any other rates or charges to recover demand management costs), with the proposed rates and charges for calendar years 2021 and 2022, to allow the Board to consider demand management funding in relation to the 2020 IRP and to undergo a rate structure refinement process.

In 2021, in *San Diego County Water Authority v. Metropolitan Water District of Southern California*, *et al.*, the Court of Appeal clarified that its Water Stewardship Rate ruling applied to years after 2014 as well. In November 2021, the Board voted to allocate demand management costs to supply rate elements in 2023 forward. The balance of the Water Stewardship Fund is projected to be $56 million as of June 30, 2022, which will be used to partially offset demand management expenditures in the fiscal year 2022-23 and 2023-24 budget.

System Power Rate. The System Power Rate recovers the cost of energy required to pump water to Southern California through the State Water Project and CRA. The cost of power is recovered through a uniform, volumetric rate. The System Power Rate is applied to all deliveries of Metropolitan water to member agencies. All wheeling transactions are pursuant to individual contracts, which may typically provide for wheeling parties to pay for the actual cost (not system average) of power needed to move the water. For example, a party wheeling water through the California Aqueduct would pay the variable power cost associated with using the State Water Project transportation facilities.

Treatment Surcharge. The Treatment Surcharge recovers all of the costs of providing treatment capacity and operations through a uniform, volumetric rate per acre-foot of treated water transactions. The Treatment Surcharge is charged for all treated water transactions.

The amount of each of these rates since January 1, 2018, is shown in the table entitled "SUMMARY OF WATER RATES" under "–Water Rates" below.

Member Agency Purchase Orders

The current rate structure allows member agencies to choose to purchase water from Metropolitan by means of a Purchase Order. Purchase Orders are voluntary agreements that determine the amount of water that a member agency can purchase at the Tier 1 Supply Rate. Under the Purchase Orders, member agencies have the option to purchase a greater amount of water (based on past purchase levels) over the term of the Purchase Order. Such agreements allow member agencies to manage costs and provide Metropolitan with a measure of secure revenue.

In November 2014, the Metropolitan Board approved new Purchase Orders effective January 1, 2015 through December 31, 2024 (the "Purchase Order Term"). Twenty-one of Metropolitan's 26 member agencies have Purchase Orders, which commit the member agencies to purchase a minimum amount of supply from Metropolitan (the "Purchase Order Commitment").

The key terms of the Purchase Orders include:

- A ten-year term, effective January 1, 2015 through December 31, 2024;
- A higher Tier 1 limit based on the Base Period Demand, determined by the member agency's choice between (1) the Revised Base Firm Demand, which is the highest fiscal year purchases during the 13-year period of fiscal year 1989-90 through fiscal year 2001-02, or (2) the highest year purchases in the most recent 12-year period of fiscal year 2002-03 through 2013-14. The demand base is unique for each member agency, reflecting the use of Metropolitan's system water over time;
- An overall purchase commitment by the member agency based on the Demand Base period chosen, times ten to reflect the ten-year Purchase Order term. Those agencies choosing the more recent 12-year period may have a higher Tier 1 Maximum and commitment. The commitment is also unique for each member agency;
- The opportunity to reset the Base Period Demand using a five-year rolling average;
- Any obligation to pay the Tier 2 Supply Rate will be calculated over the ten-year period, consistent with the calculation of any Purchase Order commitment obligation; and
- An appeal process for agencies with unmet purchase commitments that will allow each acre-foot of unmet commitment to be reduced by the amount of production from a local resource project that commences operation on or after January 1, 2014.

Member agencies that do not have Purchase Orders in effect are subject to Tier 2 Supply Rates for amounts exceeding 60 percent of their base amount (equal to the member agency's highest fiscal year demand between 1989-90 and 2001-02) annually.

Other Charges

The following paragraphs summarize the additional charges for the use of Metropolitan's distribution system:

Readiness-to-Serve Charge. The Readiness-to-Serve Charge ("RTS") recovers the cost of the portion of the system that is available to provide emergency service and available capacity during outages and hydrologic variability. The RTS is a fixed charge that is allocated among the member agencies based on a ten-fiscal year rolling average of firm demands. Water transfers and exchanges, except SDCWA Exchange Agreement transactions, are included for purposes of calculating the ten-fiscal year rolling average. The Standby Charge, described below, will continue to be collected at the request of a member agency and applied as a direct offset to the member agency's RTS obligation. The RTS (including RTS charge amounts collected through the Standby Charge described below) generated $136.5 million in fiscal year 2018-19, $134.5 million in fiscal year 2019-20, and $133.0 million in fiscal year 2020-21. Based on the adopted rates and charges, the RTS (including RTS charge amounts expected to be collected through the Standby Charge described below) is projected to generate $135.0 million in fiscal year 2021-22.

Water Standby Charges. The Standby Charge is authorized by the State Legislature and has been levied by Metropolitan since fiscal year 1992-93. Metropolitan will continue to levy the Standby Charge only within the service areas of the member agencies that request that the Standby Charge be utilized to help fund a member agency's RTS obligation. See "– Readiness-to-Serve Charge" above. The Standby Charge for each acre or parcel of less than an acre will vary from member agency to member agency, reflecting current rates, which have not exceeded the rates set in fiscal year 1993-94, and range from $5 to $15 for each acre or parcel less than an acre within Metropolitan's service area, subject to specified exempt categories. Standby charges are assessments under the terms of Proposition 218, a State constitutional ballot initiative approved by the voters on November 5, 1996, but Metropolitan's current standby charges are exempt from Proposition 218's procedural requirements. See "–California Ballot Initiatives."

Twenty-two of Metropolitan's member agencies collect their RTS charges through Standby Charges. RTS charges collected by means of such Standby Charges were $41.7 million in fiscal year 2018-19, $41.7 million in fiscal year 2019-20, and $41.9 million in fiscal year 2020-21.

Capacity Charge. The Capacity Charge recovers costs incurred to provide peak capacity within Metropolitan's distribution system. The Capacity Charge provides a price signal to encourage agencies to reduce peak demands on the distribution system and to shift demands that occur during the May 1 through September 30 period into the October 1 through April 30 period. This results in more efficient utilization of Metropolitan's existing infrastructure and deferring capacity expansion costs. Each member agency will pay the Capacity Charge per cfs based on a three-year trailing peak (maximum) day demand, measured in cfs. Each member agency's peak day is likely to occur on different days; therefore, this measure approximates peak week demands on Metropolitan. The Capacity Charge was $8,800 per cfs effective as of January 1, 2020 and was $10,700 per cfs effective as of January 1, 2021. The Capacity Charge was $12,200 per cfs effective as of January 1, 2022. The Capacity Charge will be $10,600 per cfs effective as of January 1, 2023. The Capacity Charge generated $33.0 million in fiscal year 2018-19, $30.5 million in fiscal year 2019-20, and $31.7 million in fiscal year 2020-21. Based on the adopted rates and charges, the Capacity Charge is projected to generate $40.5 million in fiscal year 2021-22.

Classes of Water Service

Metropolitan, a wholesaler, provides two types of services: full-service water service (treated or untreated) and wheeling service. Metropolitan has one class of customers: its member agencies. The level of rate unbundling in Metropolitan's rate structure provides transparency to show that rates and charges recover only those functions involved in the applicable service, and that no cross-subsidy of costs exists. Metropolitan's

cost of service process and resulting unbundled rate structure ensures that its wholesale customers pay for only those services they elect to receive.

The applicable rate components and fixed charges for each class of water service are shown in the chart below.

Current Services and Rate Components

	Rates & Charges That Apply						
Service	**System Access**	**Water Stewardship[1]**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**	**Treatment Surcharge**
Full Service Untreated	Yes	No	Yes	Yes	Yes	Yes	No
Full Service Treated	Yes	No	Yes	Yes	Yes	Yes	Yes
Wheeling Service[2]	No[2]	No[2]	No[2][3]	No[2]	No[2]	No[2]	No[2]

[1] As described under "–Rate Structure –Water Stewardship Rate," the Water Stewardship Rate has not been incorporated into Metropolitan's rates and charges for calendar years 2021 and 2022 and therefore has not been collected on water transactions after December 31, 2020. In November 2021, the Board directed staff to allocate all demand management costs as an element of Metropolitan's supply costs.

[2] In August 2020, the Board terminated the pre-set wheeling rate for transactions for a period of up to one year with member agencies, pursuant to Sections 4119 and 4405 of the Metropolitan Administrative Code. This change became effective on January 1, 2021. The price for wheeling to member agencies for transactions of up to one year will be established by contract on a case-by-case basis, as is currently the case for wheeling to member agencies for more than one year and wheeling to third parties.

[3] Under Metropolitan's prior pre-set wheeling rate for wheeling service under Sections 4119 and 4405 of the Metropolitan Administrative Code, wheeling parties were required to pay for their own cost for power (if such power could be scheduled by Metropolitan) or were required to pay Metropolitan for the actual cost (not system average) of power service utilized for delivery of the wheeled water. In addition, wheeling parties were assessed an administration fee of not less than $5,000 per transaction.

Metropolitan offers three programs that encourage the member agencies to increase groundwater and emergency storage and for which certain Metropolitan charges are inapplicable.

(1) Conjunctive Use Program. The Conjunctive Use Program is operated through individual agreements with member and retail agencies for groundwater storage within Metropolitan's service area. Wet year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Metropolitan has the option to call water stored in the groundwater basins for the participating member agency pursuant to its contractual conjunctive use agreement. At the time of the call, the member agency pays the prevailing rate for that water, but the deliveries are excluded from the calculation of the Capacity Charge because Conjunctive Use Program deliveries are made at Metropolitan's discretion. Conjunctive use programs may also contain cost-sharing terms related to operational costs. See "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

(2) Cyclic Storage Program. The Cyclic Storage Program refers collectively to the existing Cyclic Storage Program agreements and the Pre-Deliveries Program approved in 2019. The Program is operated through individual agreements with member agencies for groundwater or surface water storage or pre-deliveries within Metropolitan's service area. Wet-year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Deliveries to the cyclic storage accounts are at Metropolitan's discretion while member agencies have discretion on whether they want to accept the water. At the time the water is delivered from the cyclic storage account, the prevailing full-service rate applies, but deliveries are excluded from the calculation of the Capacity Charge because Cyclic Storage Program deliveries are made at Metropolitan's discretion. Cyclic agreements may also contain a credit payable to the member agencies under terms approved by the Board in April 2019. See "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

(3) Emergency Storage Program. The Emergency Storage Program is used for delivering water for emergency storage in surface water reservoirs and storage tanks. Emergency Storage Program purposes include initially filling a newly constructed reservoir or storage tank and replacing water used during an emergency. Because Metropolitan could interrupt delivery of this water, Emergency Storage Program Deliveries are excluded from the calculation of the RTS Charge, the Capacity Charge, and the Tier 1 maximum.

The applicable rate components and fixed charges applicable for each such program are shown in the following chart.

Current Programs and Rate Components

	Rates & Charges That Apply						
Program	**Supply**	**System Access**	**Water Stewardship[(1)]**	**System Power**	**Readiness to Serve**	**Capacity Charge**	**Tier 1 Maximum**
Full Service	Yes	Yes	No	Yes	Yes	Yes	Yes
Conjunctive Use	Yes	Yes	No	Yes	Yes	No	Yes
Cyclic	Yes	Yes	No	Yes	Yes	No	Yes
Emergency Storage	Yes	Yes	No	Yes	No	No	No[(2)]

(1) As described under "–Rate Structure –Water Stewardship Rate," the Water Stewardship Rate has not been incorporated into Metropolitan's rates and charges for calendar years 2021 and 2022 and therefore has not been collected on water transactions after December 31, 2020.

(2) Emergency Storage Program pays the Tier 1 Supply Rate; purchases under Emergency Storage program do not count towards a member agency's Tier 1 Maximum.

Water Rates

The following table sets forth Metropolitan's water rates by category beginning January 1, 2018. See also "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Revenues" in this Appendix A. In addition to the base rates for untreated water sold in the different classes of service, the columns labeled "Treated" include the surcharge that Metropolitan charges for water treated at its water treatment plants. See "–Rate Structure" and "–Classes of Water Service" for descriptions of current rates. See also "–Litigation Challenging Rate Structure" for a description of litigation challenging Metropolitan's water rates.

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SUMMARY OF WATER RATES
(Dollars Per Acre-Foot)

	SUPPLY RATE		SYSTEM ACCESS RATE	WATER STEWARDSHIP RATE[1]	SYSTEM POWER RATE	TREATMENT SURCHARGE
	Tier 1	Tier 2				
January 1, 2018	$209	$295	$299	$55	$132	$320
January 1, 2019	$209	$295	$326	$69	$127	$319
January 1, 2020	$208	$295	$346	$65	$136	$323
January 1, 2021	$243	$285	$373	$--	$161	$327
January 1, 2022	$243	$285	$389	$--	$167	$344
January 1, 2023*	$321	$530	$368	$--	$166	$354
January 1, 2024*	$332	$531	$389	$--	$182	$353

	FULL SERVICE TREATED[2]		FULL SERVICE UNTREATED[3]	
	Tier 1	Tier 2	Tier 1	Tier 2
January 1, 2018	$1,015	$1,101	$695	$781
January 1, 2019	$1,050	$1,136	$731	$817
January 1, 2020	$1,078	$1,165	$755	$842
January 1, 2021	$1,104	$1,146	$777	$819
January 1, 2022	$1,143	$1,185	$799	$841
January 1, 2023*	$1,209	$1,418	$855	$1,064
January 1, 2024*	$1,256	$1,455	$903	$1,102

Source: Metropolitan.

* Rates effective January 1, 2023 and January 1, 2024 were adopted by Metropolitan's Board on April 12, 2022.

(1) As described under "–Rate Structure –*Water Stewardship Rate*," the Water Stewardship Rate has not been incorporated into Metropolitan's rates and charges for calendar years 2021 and 2022 and therefore has not been collected on water transactions after December 31, 2020. In November 2021, the Board directed staff to allocate all demand management costs to Metropolitan's supply elements.

(2) Full service treated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate, System Power Rate and Treatment Surcharge.

(3) Full service untreated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate and System Power Rate.

Financial Reserve Policy

Metropolitan's reserve policy provides for a minimum reserve requirement and target amount of unrestricted reserves at June 30 of each year. The minimum reserve requirement at June 30 of each year is equal to the portion of fixed costs estimated to be recovered by water revenues for the 18 months beginning with the immediately succeeding July. Funds representing the minimum reserve requirement are held in the Revenue Remainder Fund. Any funds in excess of the minimum reserve requirement are held in the Water Rate Stabilization Fund. The target amount of unrestricted reserves is equal to the portion of the fixed costs estimated to be recovered by water revenues during the two years immediately following the 18-month period used to calculate the minimum reserve requirement. Funds in excess of the target amount are to be utilized for capital expenditures in lieu of the issuance of additional debt, or for the redemption, defeasance or purchase of outstanding bonds or commercial paper as determined by the Board. Provided that the fixed charge coverage ratio is at or above 1.2, amounts in the Water Rate Stabilization Fund may be expended for any lawful purpose

of Metropolitan, as determined by the Board. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

At June 30, 2021, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $589.6 million on a modified accrual basis or $463.0 on a cash basis. As of June 30, 2021, the minimum reserve requirement was $263.1 million, and the target reserve level was $641.7 million.

Due to SDCWA's litigation challenging Metropolitan's rates and pursuant to the Exchange Agreement between Metropolitan and SDCWA, Metropolitan is required to set aside funds based on the quantities of exchange water that Metropolitan provides to SDCWA and the amount of charges disputed by SDCWA. In April 2016, Metropolitan transferred these funds from unrestricted financial reserves to a new designated fund, the Exchange Agreement Set-Aside Fund. In 2021, Metropolitan paid to SDCWA the final judgment contract damages amount in the 2010 and 2012 SDCWA v. Metropolitan cases for Water Stewardship Rate payments under the Exchange Agreement in 2011 through 2014, plus interest. Following the 2021 Court of Appeal opinion clarifying its Water Stewardship Rate ruling applies to later years, Metropolitan paid to SDCWA Water Stewardship Rate payments from 2015 to 2017, plus pre-judgment interest. These payments include all amounts sought related to breach of the Exchange Agreement resulting from the inclusion of the Water Stewardship Rate in the contract price for Exchange Agreement transactions occurring from 2010 until the Water Stewardship Rate was no longer charged in the contract price for Exchange Agreement transactions, beginning in 2018. Accordingly, there are no amounts held in the Exchange Agreement Set-Aside fund. See "–Litigation Challenging Rate Structure."

Metropolitan projects that its unrestricted reserves as of June 30, 2022 will be approximately $701 million on a modified accrual basis or $597 million on a cash basis. This projection is based on the assumptions set forth in the table entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" under "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. In addition, this projection assumes that Metropolitan's Board will not authorize the use of any additional amounts in the unrestricted reserves.

California Ballot Initiatives

Proposition 218, a State ballot initiative known as the "Right to Vote on Taxes Act," was approved by the voters on November 5, 1996 adding Articles XIIIC and XIIID to the California Constitution. Article XIIID provides substantive and procedural requirements on the imposition, extension or increase of any "fee" or "charge" levied by a local government upon a parcel of real property or upon a person as an incident of property ownership. As a wholesaler, Metropolitan serves water to its member agencies, not to persons or properties as an incident of property ownership. Thus, water rates charged by Metropolitan to its member agencies are not property related fees and charges and therefore are exempt from the requirements of Article XIIID. Fees for retail water service by Metropolitan's member agencies or their agencies are subject to the requirements of Article XIIID.

Article XIIID also imposes certain procedures with respect to assessments. Under Article XIIID, "standby charges" are considered "assessments" and must follow the procedures required for "assessments," unless they were in existence on the effective date of Article XIIID. Metropolitan has imposed its water standby charges since 1992 and therefore its current standby charges are exempt from the Article XIIID procedures. Changes to Metropolitan's current standby charges could require notice to property owners and approval by a majority of such owners returning mail-in ballots approving or rejecting any imposition or increase of such standby charge. Twenty-two of Metropolitan's member agencies have elected to collect all or a portion of their readiness-to-serve charges through standby charges. See "–Other Charges – *Readiness-to-Serve Charge*" and "– *Water Standby Charges*" above. Even if Article XIIID is construed to limit the ability of Metropolitan and its member agencies to impose or collect standby charges, the member agencies will continue to be obligated to pay the readiness-to-serve charges.

Article XIIIC makes all taxes either general or special taxes and imposes voting requirements for each kind of tax. It also extends the people's initiative power to reduce or repeal previously authorized local taxes, assessments, fees and charges. This extension of the initiative power is not limited by the terms of Article XIIIC to fees imposed after November 6, 1996 or to property-related fees and charges and absent other authority could result in retroactive reduction in existing taxes, assessments or fees and charges.

Proposition 26, a State ballot initiative aimed at restricting regulatory fees and charges, was approved by a majority of California voters on November 2, 2010. Proposition 26 broadens the definition of "tax" in Article XIIIC of the California Constitution to include: levies, charges and exactions imposed by local governments, except for charges imposed for benefits or privileges or for services or products granted to the payor (and not provided to those not charged) that do not exceed their reasonable cost; regulatory fees that do not exceed the cost of regulation and are allocated in a fair or reasonable manner; fees for the use of local governmental property; fines and penalties imposed for violations of law; real property development fees; and assessments and property-related fees imposed under Article XIIID of the California Constitution. Special taxes imposed by local governments including special districts are subject to approval by two-thirds of the electorate. Proposition 26 applies to charges imposed or increased by local governments after the date of its approval. Metropolitan believes its water rates and charges are not taxes under Proposition 26. SDCWA's lawsuit challenging the rates adopted by Metropolitan in April 2012 (part of which became effective January 1, 2013 and part of which became effective January 1, 2014) alleged that such rates violate Proposition 26. On June 21, 2017, the California Court of Appeal ruled that whether or not Proposition 26 applies to Metropolitan's rates, the System Access Rate and System Power Rate challenged by SDCWA in such lawsuit comply with Proposition 26. SDCWA's lawsuits challenging the rates adopted by Metropolitan in April 2014, April 2016, and April 2018 also alleged that such rates violate Proposition 26. On May 11, 2022, the San Francisco Superior Court ruled that Proposition 26 applies to Metropolitan's rates and charges. See "–Litigation Challenging Rate Structure." The trial court decision is subject to appeal. Under Proposition 26, the agency holds the burden of proof in a rate or charge challenge. Otherwise, due to the uncertainties of evolving case law and potential future judicial interpretations of Proposition 26, Metropolitan is unable to predict at this time the extent to which Proposition 26, if ultimately determined to apply to Metropolitan's rates and charges, would impose stricter standards on Metropolitan's setting of rates and charges.

Propositions 218 and 26 were adopted as measures that qualified for the ballot pursuant to the State's initiative process. Other initiative measures have been proposed from time to time, or could be proposed in the future, which if qualified for the ballot, could be adopted, or legislative measures could be approved by the Legislature, which may place limitations on the ability of Metropolitan or its member agencies to increase revenues or to increase appropriations. Such measures may further affect Metropolitan's ability to collect taxes, assessments or fees and charges, which could have an adverse effect on Metropolitan's revenues.

Preferential Rights

Section 135 of the Act gives each of Metropolitan's member agencies a preferential right to purchase for domestic and municipal uses within the agency a portion of the water served by Metropolitan, based upon a ratio of all payments on tax assessments and otherwise, except purchases of water, made to Metropolitan by the member agency compared to total payments made by all member agencies on tax assessments and otherwise since Metropolitan was formed, except purchases of water. Historically, these rights have not been used in allocating Metropolitan's water. In 2004, the California Court of Appeal upheld Metropolitan's methodology for calculation of the respective member agencies' preferential rights under Section 135 of the Act. SDCWA's litigation challenging Metropolitan's rate structure also challenged Metropolitan's exclusion of payments for Exchange Agreement deliveries from the calculation of SDCWA's preferential right. On June 21, 2017, the California Court of Appeal held that SDCWA's payments under the Exchange Agreement must be included in the preferential rights calculation. See "–Litigation Challenging Rate Structure."

Litigation Challenging Rate Structure

Through several lawsuits filed by SDCWA since 2010, SDCWA has challenged the rates adopted by Metropolitan's Board in 2010, 2012, 2014, 2016 and 2018. Each of these lawsuits and the status thereof are briefly described below.

The 2010 and 2012 Cases. SDCWA filed *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.* on June 11, 2010 challenging the rates adopted by the Board on April 13, 2010, which became effective January 1, 2011 and January 1, 2012 (the "2010 Case"). The complaint requested a court order invalidating the rates adopted April 13, 2010, and that Metropolitan be mandated to allocate certain costs associated with the State Water Contract and the Water Stewardship Rate to water supply rates and not to transportation rates.

As described under "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Metropolitan and San Diego County Water Authority Exchange Agreement" in this Appendix A, the contract price payable by SDCWA under the Exchange Agreement between Metropolitan and SDCWA is Metropolitan's transportation rates. Therefore, SDCWA also alleged that Metropolitan breached the Exchange Agreement by allocating certain costs related to the State Water Contract and the Water Stewardship Rate to its transportation rates because it resulted in an overcharge to SDCWA for water delivered pursuant to the Exchange Agreement.

On June 8, 2012, SDCWA filed a new lawsuit challenging the rates adopted by Metropolitan on April 10, 2012 and effective on January 1, 2013 and January 1, 2014 (the "2012 Case") based on similar claims, and further alleging that Metropolitan's rates adopted in 2012 violated Proposition 26.

Following a trial of both lawsuits in two phases and subsequent trial court ruling, the parties appealed. On June 21, 2017, the California Court of Appeal ruled that Metropolitan may lawfully include its State Water Project transportation costs in the System Access Rate and System Power Rate that are part of the Exchange Agreement's price term, and that Metropolitan may also lawfully include the System Access Rate in its wheeling rate, reversing the trial court decision on this issue. The court held Metropolitan's allocation of the State Water Project transportation costs as its own transportation costs is proper and does not violate the wheeling statutes (Water Code, §1810, *et seq.*), Proposition 26 (Cal. Const., Article XIIIC, §1, subd. (e)), whether or not that Proposition applies to Metropolitan's rates, California Government Code section 54999.7, the common law, or the terms of the parties' Exchange Agreement.

The Court of Appeal also ruled that the record did not support Metropolitan's inclusion of its Water Stewardship Rate as a transportation cost in the Exchange Agreement price or the wheeling rate, under the common law and the wheeling statutes. The court noted that its holding does not preclude Metropolitan from including the Water Stewardship Rate in Metropolitan's full-service rate. See also "–Rate Structure – *Water Stewardship Rate*" above.

The Court of Appeal held that because the Water Stewardship Rate was included in the Exchange Agreement price, there was a breach by Metropolitan of the Exchange Agreement in 2011 through 2014 and remanded the case to the trial court for a redetermination of damages in light of its ruling concerning the Water Stewardship Rate. The Court of Appeal also found that the Exchange Agreement may entitle the prevailing party to attorneys' fees for both phases of the case, and directed the trial court on remand to make a new determination of the prevailing party, if any.

On September 27, 2017, the California Supreme Court denied SDCWA's petition for review, declining to consider the Court of Appeal's decision. The Court of Appeal's decision is therefore final.

After tendering payment in 2019 which SDCWA rejected, in February 2021 Metropolitan paid to SDCWA the same amount previously tendered of $44.4 million for contract damages for SDCWA's Water

Stewardship Rate payments from 2011 to 2014 and pre-judgment and post-judgment interest. In September 2021, following a 2021 Court of Appeal opinion clarifying that its Water Stewardship Rate ruling applies to later years, Metropolitan paid to SDCWA the amount of $35.9 million for SDCWA's Water Stewardship Rate payments from 2015 to 2017 and pre-judgment interest. These payments include all amounts sought related to breach of the Exchange Agreement resulting from the inclusion of the Water Stewardship Rate in the contract price for Exchange Agreement transactions occurring from 2010 until the Water Stewardship Rate was no longer charged in the contract price for Exchange Agreement transactions, beginning in 2018 (See "–Rate Structure" above). The payment included $58.1 million withdrawn from the Exchange Agreement Set-Aside Fund (See "–Financial Reserve Policy" above) and $22.1 million withdrawn from reserves (the remainder of the statutory interest).

The Superior Court also issued an order finding SDCWA is the prevailing party on the contract in the 2010 and 2012 cases and is therefore entitled to its attorneys' fees and costs under the contract, and to statutory costs. On February 25, 2021, Metropolitan appealed both prevailing party determinations. The parties stipulated to $13,397,575.66 as the amount of SDCWA's attorneys' fees that may be awarded under the Exchange Agreement, in the event Metropolitan's appeal is unsuccessful. On March 17, 2022, the Court of Appeal held that SDCWA is the prevailing party in the 2010 and 2012 cases and is therefore entitled to attorney's fees under the parties' Exchange Agreement and litigation costs. On March 21, 2022, Metropolitan paid to SDCWA $14,296,864.99 ($13,397,575.66 fees award, plus statutory interest) and $352,247.79 for costs ($326,918.34 costs award, plus statutory interest).

The 2014, 2016 and 2018 Cases. SDCWA has also filed lawsuits challenging the rates adopted in 2014, 2016 and 2018 and asserting breach of the Exchange Agreement. Metropolitan filed cross-complaints in the three cases, asserting claims relating to rates and the Exchange Agreement, including reformation.

The operative Petitions for Writ of Mandate and Complaints allege the same Water Stewardship Rate claim and breach of the Exchange Agreement as in the 2010 and 2012 cases, but because Metropolitan paid the amounts sought to SDCWA, and the writ in the 2010 and 2012 cases encompasses these claims, these claims and cross-claims are moot. They also claim Metropolitan's wheeling rate fails to provide wheelers a reasonable credit for "offsetting benefits" pursuant to Water Code Section 1810, *et seq.*, and that Metropolitan has breached the Exchange Agreement by failing to reduce the price for an "offsetting benefits" credit. The cases also alleged that in 2020 and 2021, Metropolitan misallocated its California WaterFix costs as transportation costs and breached the Exchange Agreement by including those costs in the transportation rates charged. In April 2022, the parties requested the court's dismissal with prejudice of the claims and cross-claims relating to California WaterFix. The cases also request a judicial declaration that Proposition 26 applies to Metropolitan's rates and charges, and a judicial declaration that SDCWA is not required to pay any portion of a judgment in the litigation. Metropolitan filed cross-complaints in each of these cases, asserting claims against relating to rates and the Exchange Agreement.

The cases were stayed pending resolution of the 2010 and 2012 cases, but the stays have been lifted and the cases have been consolidated in the San Francisco Superior Court.

Metropolitan and SDCWA each filed motions for summary adjudication of certain issues in the 2014, 2016 and 2018 cases with the court. Summary adjudication is a procedure by which a court may determine the merits of a particular claim or affirmative defense, a claim for damages, and/or an issue of duty before trial.

On May 4, 2022, the San Francisco Superior Court issued an order granting Metropolitan's motion for summary adjudication on its cross-claim for declaratory relief that the conveyance facility owner, Metropolitan, determines fair compensation, including any offsetting benefits; and denying its motion on certain other cross-claims and an affirmative defense.

On May 11, 2022, the San Francisco Superior Court issued an order granting SDCWA's motion for summary adjudication on: Metropolitan's cross-claim in the 2018 case for a declaration with respect to the lawfulness of the Water Stewardship Rate's inclusion in the wheeling rate and transportation rates in 2019 and 2020; certain Metropolitan cross-claims and affirmative defenses on the ground that Metropolitan has a duty to charge no more than fair compensation, which includes reasonable credit for any offsetting benefits pursuant to Water Code section 1811(c), with the court also stating that whether that duty arose and whether Metropolitan breached that duty are issues to be resolved at trial; Metropolitan's affirmative defenses that SDCWA's claims are untimely and SDCWA has not satisfied claims presentation requirements; Metropolitan's affirmative defense in the 2018 case that SDCWA has not satisfied dispute resolution requirements under the Exchange Agreement; SDCWA's claim, Metropolitan's cross-claims, and Metropolitan's affirmative defenses regarding the applicability of Proposition 26, finding that Proposition 26 applies to Metropolitan's rates and charges, with the court also stating that whether Metropolitan violated Proposition 26 is a separate issue; and Metropolitan's cross-claims and affirmative defenses regarding the applicability of Government Code section 54999.7, finding that section 54999.7 applies to Metropolitan's rates. The court denied SDCWA's motion on certain other Metropolitan cross-claims and affirmative defenses.

Damages sought by SDCWA in connection with its claims for offsetting benefits credit under the Exchange Agreement exceed $334 million for the six years (2015 through 2020) at issue in these cases. In the event that SDCWA were to prevail in a final adjudication of this issue, a determination of offsetting benefits credit due to SDCWA, if any, could impact the Exchange Agreement price in future years.

Trial of the 2014, 2016 and 2018 cases occurred May 16 to June 3, 2022. The court has set a filing deadline of August 19, 2022 for post-trial briefing in the cases. Closing arguments are scheduled to be heard on September 27, 2022.

Metropolitan is unable to assess at this time the likelihood of success of the pending cases, any possible appeals, settlements or any future claims.

Other Revenue Sources

Hydroelectric Power Recovery Revenues. Metropolitan has constructed 15 small hydroelectric plants on its distribution system. The combined generating capacity of these plants is approximately 130 megawatts, and is dependent on available water sources. The plants are located in Los Angeles, Orange, Riverside, and San Diego Counties at existing pressure control structures and other locations. Since 2000, annual energy generation sales revenues have ranged between $7.3 million and nearly $29.6 million, fluctuating with available water supplies. Hydroelectric power sales revenues from the hydroelectric power plants were $7.3 million in fiscal year 2020-21.

CRA Power Sale Revenues. The power requirements for the CRA are offset, in part, by Metropolitan's hydroelectric power generation entitlements from Hoover and Parker dams. A net revenue stream, referred to as CRA power sales, results when the CRA power needs are less than Metropolitan's Hoover and Parker power entitlements, and in which the excess energy is imported and sold into the California Independent System Operator ("CAISO") market. The total Hoover and Parker dam excess energy sales revenues were $6.0 million in fiscal year 2019-20 and $11.4 million in fiscal year 2020-21.

Investment Income. In fiscal years, 2018-19, 2019-20 and 2020-21, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, including construction account and trust fund earnings, excluding gains and losses on swap terminations, on a cash basis (unaudited) were $31.3 million, $18.1 million, and $12.7 million, respectively.

Investment of Moneys in Funds and Accounts

The Board has delegated to the Treasurer the authority to invest funds. All moneys in any of the funds and accounts established pursuant to Metropolitan's water revenue or general obligation bond resolutions are managed by the Treasurer in accordance with Metropolitan's Statement of Investment Policy. All Metropolitan funds available for investment are currently invested in United States Treasury and agency securities, supranationals, commercial paper, negotiable certificates of deposit, banker's acceptances, corporate notes, municipal bonds, government-sponsored enterprise, money market funds, California Asset Management Program ("CAMP") and the California Local Agency Investment Fund ("LAIF"). CAMP is a program created through a joint powers agency as a pooled short-term portfolio and cash management vehicle for California public agencies. CAMP is a permitted investment for all local agencies under California Government Code Section 53601(p). LAIF is a voluntary program created by statute as an investment alternative for California's local governments and special districts. LAIF permits such local agencies to participate in an investment portfolio, which invests billions of dollars, managed by the State Treasurer's Office.

The Statement of Investment Policy provides that in managing Metropolitan's investments, the primary objective shall be to safeguard the principal of the invested funds. The secondary objective shall be to meet all liquidity requirements and the third objective shall be to achieve a return on the invested funds. Although the Statement of Investment Policy permits investments in some government-sponsored enterprise, the portfolio does not include any of the special investment vehicles related to sub-prime mortgages. Metropolitan's current investments comply with the Statement of Investment Policy.

As of June 30, 2022, the total market value (cash-basis) of all Metropolitan invested funds was $1.5 billion, including a bond reserve of $1.6 million for Metropolitan's 2000 Authorization, Series B-3 Bonds (which is expected to be released in connection with the refunding of such bonds by Metropolitan's Water Revenue Refunding Bonds, 2022 Series B). The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. Over the three years ended June 30, 2022, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.2 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $831.9 million on July 31, 2019. See Note 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.

Metropolitan's Administrative Code requires that (1) the Treasurer provide an annual Statement of Investment Policy for approval by Metropolitan's Board, (2) the Treasurer provide a monthly investment report to the Board and the General Manager showing by fund the description, maturity date, yield, par, cost and current market value of each security, and (3) the General Counsel review as to eligibility the securities invested in by the Treasurer for that month and report his or her determinations to the Board. The Board approved the Statement of Investment Policy for fiscal year 2022-23 on June 14, 2022.

Subject to the provisions of Metropolitan's water revenue or general obligation bond resolutions, obligations purchased by the investment of bond proceeds in the various funds and accounts established pursuant to a bond resolution are deemed at all times to be a part of such funds and accounts and any income realized from investment of amounts on deposit in any fund or account therein will be credited to such fund or account. The Treasurer is required to sell or present for redemption any investments whenever it may be necessary to do so in order to provide moneys to meet required payments or transfers from such funds and accounts. For the purpose of determining at any given time the balance in any such funds, any such investments constituting a part of such funds and accounts will be valued at the then estimated or appraised market value of such investments.

All investments, including those authorized by law from time to time for investments by public agencies, contain certain risks. Such risks include, but are not limited to, a lower rate of return than expected and loss or delayed receipt of principal. The occurrence of these events with respect to amounts held under

Metropolitan's water revenue or general obligation revenue bond resolutions, or other amounts held by Metropolitan, could have a material adverse effect on Metropolitan's finances. These risks may be mitigated, but are not eliminated, by limitations imposed on the portfolio management process by Metropolitan's Statement of Investment Policy.

The Statement of Investment Policy requires that investments have a minimum credit rating of "A-1/P-1/F1" for short-term securities and "A" for longer-term securities, without regard to modifiers, at the time of purchase. If a security is downgraded below the minimum rating criteria specified in the Statement of Investment Policy, the Treasurer shall determine a course of action to be taken on a case-by-case basis considering such factors as the reason for the downgrade, prognosis for recovery, or further rating downgrades, and the market price of the security. The Treasurer is required to note in the Treasurer's monthly report any securities which have been downgraded below Policy requirements and the recommended course of action.

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan's securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See Metropolitan's financial statements included in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)" for a description of Metropolitan's investments at June 30, 2021, and March 31, 2022.

From July 2018 through January 2021, Metropolitan retained two outside investment firms to manage its core portfolio, a portion of the liquidity portfolio, and the Lake Matthews trust fund. Since February 2021, Metropolitan retains only one outside investment firm. This firm manages approximately $1.1 billion in total investments on behalf of Metropolitan as of June 30, 2022. All outside managers are required to adhere to Metropolitan's Statement of Investment Policy.

Metropolitan's Statement of Investment Policy may be changed at any time by the Board (subject to State law provisions relating to authorized investments). There can be no assurance that the State law and/or the Statement of Investment Policy will not be amended in the future to allow for investments that are currently not permitted under State law or the Statement of Investment Policy, or that the objectives of Metropolitan with respect to investments or its investment holdings at any point in time will not change.

METROPOLITAN EXPENSES

General

The following table sets forth a summary of Metropolitan's expenses, by major function, for the five years ended June 30, 2021, on a modified accrual basis. All information is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2021 and June 30, 2020, on an accrual basis, are shown in Metropolitan's audited financial statements included in Appendix B.

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SUMMARY OF EXPENSES
Fiscal Years Ended June 30
(Dollars in Millions)

	2017	2018	2019	2020	2021
Operation and Maintenance Costs[1]	$ 559	$ 568	$ 569	$ 641	$ 636
Total State Water Project[2]	506	527	482	519	547
Total Debt Service	330	360	347	285	286
Construction Expenses from Revenues[3]	132	98	128	39	110
Other[4]	4	5	6	6	6
Total Expenses (net of reimbursements)	$1,531	$1,558	$1,532	$1,490	$1,585

Source: Metropolitan.

(1) Includes operation and maintenance, debt administration, conservation and local resource programs, CRA power, and water supply expenses. Fiscal years 2016-17 and 2017-18 include $33 million and $1 million, respectively, of conservation and supply program expenses funded from transfers from the Water Management Fund.

(2) Includes operating and capital expense portions and Delta Conveyance.

(3) At the discretion of the Board, in any given year, Metropolitan may increase or decrease funding available for construction disbursements to be paid from revenues. Does not include expenditures of bond proceeds.

(4) Includes operating equipment.

Revenue Bond Indebtedness and Other Obligations

As of July 7, 2022, Metropolitan had total outstanding indebtedness secured by a lien on Net Operating Revenues of $3.69 billion. This indebtedness was comprised of (a) $2.48 billion of Senior Revenue Bonds issued under the Senior Debt Resolutions (each as defined below), which includes $2.15 billion of fixed rate Senior Revenue Bonds, and $331.9 million of variable rate Senior Revenue Bonds; and (b) $1.21 billion of Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions (each as defined below), which includes $712.8 million of fixed rate Subordinate Revenue Bonds, and $493.4 million of variable rate Subordinate Revenue Bonds. In addition, Metropolitan has $372.7 million of fixed-payor interest rate swaps which provides a fixed interest rate hedge to an equivalent amount of variable rate debt. Metropolitan's revenue bonds and other revenue obligations are more fully described below.

REVENUE BOND INDEBTEDNESS AND OTHER OBLIGATIONS

	Variable Rate	Fixed Rate	Total
Senior Lien Revenue Bonds	$ 331,875,000	$2,149,825,000	$2,481,700,000
Subordinate Lien Revenue Bonds	493,415,000	712,770,000	1,206,185,000
Total	**$ 825,290,000**	**$2,862,595,000**	**$3,687,885,000**
Fixed-Payor Interest Rate Swaps	(372,690,000)	372,690,000	--
Net Amount (after giving effect to Swaps)	**$ 452,600,000**	**$3,235,285,000**	**$3,687,885,000**

Source: Metropolitan.

As described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations –Senior Parity Obligations," in June 2022, Metropolitan entered into a revolving credit facility pursuant to which Metropolitan may issue senior lien short-term notes from time-to-time, bearing interest at a variable rate, and payable on parity with Metropolitan's Senior Revenue Bonds.

Limitations on Additional Revenue Bonds

Resolution 8329, adopted by Metropolitan's Board on July 9, 1991, as amended and supplemented (the "Master Senior Resolution," and collectively with all such supplemental resolutions, the "Senior Debt Resolutions"), provides for the issuance of Metropolitan's senior lien water revenue bonds. The Senior Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating

Revenues. Under the Senior Debt Resolutions, no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues may be issued having any priority in payment of principal, redemption premium, if any, or interest over any water revenue bonds authorized by the Senior Debt Resolutions ("Senior Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with such Senior Revenue Bonds ("Senior Parity Obligations"). No additional Senior Revenue Bonds or Senior Parity Obligations may be issued or incurred unless the conditions of the Senior Debt Resolutions have been satisfied.

Resolution 9199, adopted by Metropolitan's Board on March 8, 2016, as amended and supplemented (the "Master Subordinate Resolution," and collectively with all such supplemental resolutions, the "Subordinate Debt Resolutions," and together with the Senior Debt Resolutions, the "Revenue Bond Resolutions"), provides for the issuance of Metropolitan's subordinate lien water revenue bonds and other obligations secured by a pledge of Net Operating Revenues that is subordinate to the pledge securing Senior Revenue Bonds and Senior Parity Obligations. The Subordinate Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Subordinate Debt Resolutions, with the exception of Senior Revenue Bonds and Senior Parity Obligations, no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues may be issued having any priority in payment of principal, redemption premium, if any, or interest over any subordinate water revenue bonds authorized by the Subordinate Debt Resolutions ("Subordinate Revenue Bonds" and, together with Senior Revenue Bonds, "Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with the Subordinate Revenue Bonds ("Subordinate Parity Obligations"). No additional Subordinate Revenue Bonds or Subordinate Parity Obligations may be issued or incurred unless the conditions of the Subordinate Debt Resolutions have been satisfied.

The laws governing Metropolitan's ability to issue water revenue bonds currently provide two additional limitations on indebtedness that may be incurred by Metropolitan. The Act provides for a limit on general obligation bonds, water revenue bonds and other evidences of indebtedness of 15 percent of the assessed value of all taxable property within Metropolitan's service area. As of July 7, 2022, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $3.71 billion represented approximately 0.11 percent of the fiscal year 2021-22 taxable assessed valuation of $3,377.3 billion. The second limitation under the Act specifies that no revenue bonds may be issued, except for the purpose of refunding, unless the amount of net assets of Metropolitan as shown on its balance sheet as of the end of the last fiscal year prior to the issuance of such bonds, equals at least 100 percent of the aggregate amount of revenue bonds outstanding following the issuance of such bonds. The net assets of Metropolitan at June 30, 2021 were $7.19 billion. The aggregate amount of revenue bonds outstanding as of July 7, 2022 was $3.69 billion. The limitation does not apply to other forms of financing available to Metropolitan. Audited financial statements including the net assets of Metropolitan as of June 30, 2021 and June 30, 2020 are shown in Metropolitan's audited financial statements included in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)."

Metropolitan provides no assurance that the Act's limitations on indebtedness will not be revised or removed by future legislation. Limitations under the Revenue Bond Resolutions respecting the issuance of additional obligations payable from Net Operating Revenues on parity with the Senior Revenue Bonds and Subordinate Revenue Bonds of Metropolitan will remain in effect so long as any Senior Revenue Bonds and Subordinate Revenue Bonds authorized pursuant to the applicable Revenue Bond Resolutions are outstanding, provided however, that the Revenue Bond Resolutions are subject to amendment and supplement in accordance with their terms.

Variable Rate Exposure Policy

As of July 7, 2022, Metropolitan had outstanding $331.9 million of variable rate obligations issued as Senior Revenue Bonds under the Senior Debt Resolutions (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations –Variable Rate and Swap Obligations" below). In addition, as of July 7, 2022, $493.4 million of Metropolitan's $1.21 billion of outstanding Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions and other Subordinate Parity Obligations were variable rate obligations (described under "–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" below).

As of July 7, 2022, of Metropolitan's $825.3 million of variable rate obligations, $372.7 million of such variable rate demand obligations are treated by Metropolitan as fixed rate debt, by virtue of interest rate swap agreements (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations – *Interest Rate Swap Transactions*" below), for the purpose of calculating debt service requirements. The remaining $452.6 million of variable rate obligations represent approximately 12.3 percent of total outstanding water revenue secured indebtedness (including Senior Revenue Bonds and Senior Parity Obligations and Subordinate Revenue Bonds and Subordinate Parity Obligations), as of July 7, 2022.

Metropolitan's variable rate exposure policy requires that variable rate debt be managed to limit net interest cost increases within a fiscal year as a result of interest rate changes to no more than $5 million. In addition, the maximum amount of variable interest rate exposure (excluding variable rate bonds associated with interest rate swap agreements) is limited to 40 percent of total outstanding water revenue bond debt. Variable rate debt capacity will be reevaluated as interest rates change and managed within these parameters.

The periodic payments due to Metropolitan from counterparties under its outstanding interest rate swap agreements are calculated by reference to the London interbank offering rate ("LIBOR"). On July 27, 2017, the Financial Conduct Authority (the "FCA"), the U.K. regulatory body responsible for the regulation and supervision of LIBOR, announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR rates after 2021 (the "FCA Announcement"). Following a consultation announced in November 2020 by the Intercontinental Exchange Benchmark Administration ("IBA"), the administrator of LIBOR authorized and regulated by the FCA, with the support of the Federal Reserve Board and the FCA, made a formal announcement on March 5, 2021 that the date for the cessation of the publication of various tenors of USD LIBOR (or date on which any published USD LIBOR rate for such tenors would cease to be representative) would be: (1) December 31, 2021, for the one-week and two-month USD LIBOR, and (2) June 30, 2023, for all other tenors of USD LIBOR, including the one-month LIBOR and three-month LIBOR, the most widely used tenors of USD LIBOR and which are used to determine the periodic payments due to Metropolitan from swap counterparties. Metropolitan staff is monitoring alternate benchmark rates. As a result of the prospective phasing out of LIBOR as a reference rate and transition to an alternate benchmark rate, increased volatility in the reported LIBOR rates may occur. The level of Metropolitan's LIBOR-based swap payments may also be affected by the transition to an alternate benchmark rate when it occurs.

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Outstanding Senior Revenue Bonds and Senior Parity Obligations

Senior Revenue Bonds

The water revenue bonds issued under the Senior Debt Resolutions outstanding as of July 7, 2022 are set forth below:

Outstanding Senior Revenue Bonds

Name of Issue	Principal Outstanding
Water Revenue Bonds, 2000 Authorization, Series B-3[(1)(3)]	$ 78,900,000
Water Revenue Refunding Bonds, 2011 Series C	29,315,000
Water Revenue Refunding Bonds, 2014 Series E	33,910,000
Water Revenue Bonds, 2015 Authorization, Series A[(5)]	195,260,000
Water Revenue Refunding Bonds, 2016 Series A[(5)]	239,455,000
Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and B-2[(1) (4)]	82,905,000
Water Revenue Bonds, 2017 Authorization, Series A[(1) (4)]	80,000,000
Special Variable Water Revenue Refunding Bonds, 2018 Series A-1 and A-2[(1) (3)]	90,070,000
Water Revenue Refunding Bonds, 2018 Series B	124,525,000
Water Revenue Refunding Bonds, 2019 Series A	218,090,000
Water Revenue Bonds, 2020 Series A	207,355,000
Special Variable Rate Water Revenue Refunding Bonds, 2020 Series B[(2)]	271,815,000
Water Revenue Refunding Bonds, 2020 Series C	263,230,000
Water Revenue Bonds, 2021 Series A	188,890,000
Water Revenue Refunding Bonds, 2021 Series B	98,410,000
Water Revenue Refunding Bonds, 2022 Series A	279,570,000
Total	**$2,481,700,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.

(2) Currently in a long mode at a fixed interest rate to April 2, 2024.

(3) All of the outstanding Senior Revenue Bonds of this Series are being refunded by Metropolitan's Water Revenue Refunding Bonds, 2022 Series B. The delivery of the 2022 Series B Bonds is contingent upon the issuance and delivery of Metropolitan's 2022 Series C Bonds referred to in footnote (5).

(4) A portion of the outstanding Senior Revenue Bonds of this Series is being refunded by Metropolitan's Water Revenue Refunding Bonds, 2022 Series B. The delivery of the 2022 Series B Bonds is contingent upon the issuance and delivery of Metropolitan's 2022 Series C Bonds referred to in footnote (5).

(5) A portion of the outstanding Senior Revenue Bonds of this Series is being refunded by Metropolitan's Special Variable Rate Water Revenue Refunding Bonds, 2022 Series C (Federally Taxable), which are expected to be issued and delivered concurrently with the 2022 Series B Bonds referred to in footnotes (3) and (4). The delivery of the 2022 Series C Bonds will be contingent upon the issuance and delivery of Metropolitan's 2022 Series B Bonds.

Variable Rate and Swap Obligations

As of July 7, 2022, Metropolitan had outstanding $331.9 million of senior lien variable rate obligations. The outstanding variable rate obligations consist of Senior Revenue Bonds issued under the Senior Debt Resolutions (described under this caption "–Variable Rate and Swap Obligations") as variable rate demand obligations in a daily mode supported by standby bond purchase agreements between Metropolitan and various liquidity providers (the "Liquidity Supported Bonds").

Liquidity Supported Senior Revenue Bonds. The interest rates for Metropolitan's variable rate demand obligations issued under the Senior Debt Resolutions, totaling $331.9 million as of July 7, 2022, are currently reset on a daily basis. While bearing interest at a daily rate, such variable rate demand obligations are subject to optional tender on any business day with same day notice by the owners thereof and mandatory tender upon specified events. Such variable rate demand obligations are supported by standby bond purchase

agreements between Metropolitan and liquidity providers that provide for purchase of variable rate bonds by the applicable liquidity provider upon tender of such variable rate bonds and a failed remarketing. Metropolitan has secured its obligation to repay principal and interest advanced under the standby bond purchase agreements as Senior Parity Obligations. A decline in the creditworthiness of a liquidity provider will likely result in an increase in the interest rate of the applicable variable rate bonds, as well as an increase in the risk of a failed remarketing of such tendered variable rate bonds. Variable rate bonds purchased by a liquidity provider ("bank bonds") would initially bear interest at a per annum interest rate equal to, depending on the liquidity facility, either: (a) the highest of (i) the Prime Rate, (ii) the Federal Funds Rate plus one-half of a percent, or (iii) seven and one-half percent (with the spread or rate increasing in the case of each of (i), (ii) and (iii) of this clause (a) by one percent after 60 days); or (b) the highest of (i) the Prime Rate plus one percent, (ii) Federal Funds Rate plus two percent, and (iii) seven percent (with the spread or rate increasing in the case of each of (i), (ii) and (iii) of this clause (b) by one percent after 90 days). To the extent such bank bonds have not been remarketed or otherwise retired as of the earlier of the 60th day following the date such bonds were purchased by the liquidity provider or the stated expiration date of the related liquidity facility, Metropolitan's obligation to reimburse the liquidity provider may convert the term of the variable rate bonds purchased by the liquidity provider into a term loan payable under the terms of the current liquidity facilities in semi-annual installments over a period ending on either the third anniversary or fifth anniversary, depending on the applicable liquidity facility, of the date on which the variable rate bonds were purchased by the liquidity provider. In addition, upon an event of default under any such liquidity facility, including a failure by Metropolitan to perform or observe its covenants under the applicable standby bond purchase agreement, a default in other specified indebtedness of Metropolitan, or other specified events of default (including a reduction in the credit rating assigned to Senior Revenue Bonds issued under the Senior Debt Resolutions by any of Fitch, S&P or Moody's below "A–" or "A3"), the liquidity provider could require all bank bonds to be subject to immediate mandatory redemption by Metropolitan.

The following table lists the current liquidity providers, the current expiration date of each facility, and the principal amount of outstanding variable rate demand obligations covered under each facility as of July 7, 2022.

Liquidity Facilities and Expiration Dates

Liquidity Provider	Bond Issue	Principal Outstanding	Facility Expiration
TD Bank, N.A.	2018 Series A-1 and Series A-2[(1)]	$ 90,070,000	June 2024
TD Bank, N.A.	2016 Series B-1[(1)] and Series B-2[(2)]	$ 82,905,000	June 2024
PNC Bank, N.A.	2017 Authorization Series A[(2)]	$ 80,000,000	March 2023
PNC Bank, N.A.	2000 Authorization Series B-3[(1)]	$ 78,900,000	March 2023
Total		**$331,875,000**	

(1) As described herein, these bonds are being refunded in full by Metropolitan's Water Revenue Refunding Bonds, 2022 Series B.

(2) As described herein, these bonds are being refunded in part by Metropolitan's Water Revenue Refunding Bonds, 2022 Series B.

Source: Metropolitan.

Interest Rate Swap Transactions. By resolution adopted on September 11, 2001, Metropolitan's Board authorized the execution of interest rate swap transactions and related agreements in accordance with a master swap policy, which was subsequently amended by resolutions adopted on July 14, 2009 and May 11, 2010. Metropolitan may execute interest rate swaps if the transaction can be expected to reduce exposure to changes in interest rates on a particular financial transaction or in the management of interest rate risk derived from Metropolitan's overall asset/liability balance, result in a lower net cost of borrowing or achieve a higher net rate of return on investments made in connection with or incidental to the issuance, incurring or carrying of Metropolitan's obligations or investments, or manage variable interest rate exposure consistent with prudent debt practices and Board-approved guidelines. The Assistant General Manager, Finance & Administration

reports to the Finance and Insurance Committee of Metropolitan's Board each quarter on outstanding swap transactions, including notional amounts outstanding, counterparty exposures and termination values based on then-existing market conditions.

Metropolitan currently has one type of interest rate swap, referred to in the table below as "Fixed Payor Swaps." Under this type of swap, Metropolitan receives payments that are calculated by reference to a floating interest rate and makes payments that are calculated by reference to a fixed interest rate.

Metropolitan's obligations to make regularly scheduled net payments under the terms of the interest rate swap agreements are payable on a parity with the Senior Parity Obligations. Termination payments under the 2002A and 2002B interest rate swap agreements would be payable on a parity with the Senior Parity Obligations. Termination payments under all other interest rate swap agreements would be on parity with the Subordinate Parity Obligations.

The following swap transactions were outstanding as of July 7, 2022:

FIXED PAYOR SWAPS:

Designation	Notional Amount Outstanding	Swap Counterparty	Fixed Payor Rate	Metropolitan Receives	Maturity Date
2002 A	$ 34,553,750	Morgan Stanley Capital Services, Inc.	3.300%	57.74% of one-month LIBOR	7/1/2025
2002 B	12,926,250	JPMorgan Chase Bank	3.300	57.74% of one-month LIBOR	7/1/2025
2003	131,912,500	Wells Fargo Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2003	131,912,500	JPMorgan Chase Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2004 C	4,672,250	Morgan Stanley Capital Services, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2004 C	3,822,750	Citigroup Financial Products, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2005	26,445,000	JPMorgan Chase Bank	3.360	70% of 3-month LIBOR	7/1/2030
2005	26,445,000	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
Total	**$372,690,000**				

Source: Metropolitan.

These interest rate swap agreements entail risk to Metropolitan. One or more counterparties may fail or be unable to perform, interest rates may vary from assumptions, Metropolitan may be required to post collateral in favor of its counterparties and Metropolitan may be required to make significant payments in the event of an early termination of an interest rate swap. Metropolitan seeks to manage counterparty risk by diversifying its swap counterparties, limiting exposure to any one counterparty, requiring collateralization or other credit enhancement to secure swap payment obligations, and by requiring minimum credit rating levels. Initially, swap counterparties must be rated at least "Aa3" or "AA-", or equivalent by any two of the nationally recognized credit rating agencies; or use a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency. Should the credit rating of an existing swap counterparty drop below the required levels, Metropolitan may enter into additional swaps if those swaps are "offsetting" and risk-reducing swaps. Each counterparty is initially required to have minimum capitalization of at least $150 million. See Note 5(e) in Metropolitan's audited financial statements in Appendix B.

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event (including defaults under other specified swaps and indebtedness, certain acts of insolvency, if a party may not legally perform its swap obligations, or, with respect to Metropolitan, if its credit rating is reduced below "BBB–" by Moody's or "Baa3" by S&P (under most of the interest rate swap agreements) or below "BBB" by Moody's or "Baa2" by S&P (under one of the interest rate swap agreements)). As of June 30, 2022, Metropolitan would have been required to pay to some of its counterparties termination payments if its swaps were terminated on that date. Metropolitan's net exposure to its counterparties for all such termination payments on that date was approximately $21.0 million. Metropolitan does not presently anticipate early termination of any of its interest rate swap agreements due to default by either party or the occurrence of a termination event. However, Metropolitan has previously exercised, and may in the future exercise, from time to time, optional early termination provisions to terminate all or a portion of certain interest rate swap agreements.

Metropolitan is required to post collateral in favor of a counterparty to the extent that Metropolitan's total exposure for termination payments to that counterparty exceeds the threshold specified in the applicable swap agreement. Conversely, the counterparties are required to release collateral to Metropolitan or post collateral for the benefit of Metropolitan as market conditions become favorable to Metropolitan. As of June 30, 2022, Metropolitan had no collateral posted with any counterparty. The highest, month-end, amount of collateral posted was $36.8 million, on June 30, 2012, which was based on an outstanding swap notional amount of $1.4 billion at that time. The amount of required collateral varies from time to time due primarily to interest rate movements and can change significantly over a short period of time. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. In the future, Metropolitan may be required to post additional collateral, or may be entitled to a reduction or return of the required collateral amount. Collateral deposited by Metropolitan is held by the counterparties; a bankruptcy of any counterparty holding collateral posted by Metropolitan could adversely affect the return of the collateral to Metropolitan. Moreover, posting collateral limits Metropolitan's liquidity. If collateral requirements increase significantly, Metropolitan's liquidity may be materially adversely affected. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A.

Direct Purchase Long Mode Bonds

In April 2020, Metropolitan entered into a Bond Purchase Agreement, dated as of April 1, 2020 (the "2020 Direct Purchase Agreement") with Wells Fargo Municipal Capital Strategies, LLC ("WFMCS"), for the purchase by WFMCS and sale by Metropolitan of Metropolitan's $271.8 million Special Variable Rate Water Revenue Refunding Bonds 2020 Series B (the "2020B Senior Revenue Bonds"). The 2020B Senior Revenue Bonds were issued for the purpose of refunding all of Metropolitan's then outstanding variable rate Senior Revenue Bonds that were designated as self-liquidity bonds as part of Metropolitan's self-liquidity program ("Self-Liquidity Bonds").

The 2020B Senior Revenue Bonds were issued under the Senior Debt Resolutions and are further described in a related paying agent agreement, dated as of April 1, 2020, as amended by the Paying Agent Agreement Amendment No. 1, dated as of April 1, 2021 (together, the "2020B Paying Agent Agreement"), by and between Metropolitan and Wells Fargo Bank, National Association, as paying agent. Pursuant to the 2020B Paying Agent Agreement, the 2020B Senior Revenue Bonds may bear interest from time to time in any one of several interest rate modes at the election of Metropolitan. The 2020B Senior Revenue Bonds currently bear interest in a Long Mode under the 2020B Paying Agent Agreement at a Long Rate equal to 0.46 percent per annum for the Long Period ending on April 2, 2024. If not earlier prepaid or redeemed pursuant to the terms of the 2020 Direct Purchase Agreement and the 2020B Paying Agent Agreement, the 2020B Senior Revenue Bonds are subject to mandatory tender for purchase on April 2, 2024 (the "Mandatory Tender Date"), the last day of the new Long Period. The 2020B Senior Revenue Bonds were initially designated as Self-Liquidity Bonds pursuant to the 2020B Paying Agent Agreement and no standby bond purchase agreement or other liquidity facility is in effect for the purchase of such bonds.

On or before the date 120 days prior to the end of the Long Period, Metropolitan may request WFMCS to purchase the 2020B Senior Revenue Bonds for another Long Period, or Metropolitan may seek to remarket the 2020B Senior Revenue Bonds to another bank or in the public debt markets in a new interest rate mode or at a fixed interest rate. In the event the 2020B Bonds are not purchased by WFMCS for a subsequent Long Period, Metropolitan is obligated under the 2020 Direct Purchase Agreement to cause 2020B Senior Revenue Bonds that have not been converted to another interest rate mode or remarketed to a purchaser or purchasers other than WFMCS ("Unremarketed 2020B Bonds") to be redeemed on the Mandatory Tender Date; provided, that if no default or event of default under the 2020 Direct Purchase Agreement shall have occurred and be continuing and the representations and warranties of Metropolitan shall be true and correct on the Mandatory Tender Date, then the principal amount of the Unremarketed 2020B Senior Revenue Bonds shall be due and payable on the date that is 30 days following the Mandatory Tender Date and shall accrue interest at the Purchaser Rate, a fluctuating interest per annum equal to, the greatest of the (i) the Prime Rate, (ii) Federal Funds Rate plus one-half of one percent, and (iii) five percent, as specified in the 2020 Direct Purchase Agreement. If no default or event of default under the 2020 Direct Purchase Agreement shall have occurred and be continuing and the representations and warranties of Metropolitan shall be true and correct at the end of such 30-day period, the Unremarketed 2020B Senior Revenue Bonds will continue to bear interest at the Purchaser Rate plus, after 180 days from the Mandatory Tender Date, a spread of one percent, and the principal amount of such Unremarketed 2020B Senior Revenue Bonds may, at Metropolitan's request, instead be subject to mandatory redemption in substantially equal installments payable every six months over an amortization period commencing six months after the Mandatory Tender Date and ending on the third anniversary of the Mandatory Tender Date.

Under the 2020 Direct Purchase Agreement, upon a failure by Metropolitan to pay principal or interest of any 2020B Senior Revenue Bonds, a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, certain acts of bankruptcy or insolvency, or other specified events of default (including if S&P shall have assigned a credit rating below "BBB–," or if any of Fitch, S&P or Moody's shall have assigned a credit rating below "A–" or "A3," to Senior Revenue Bonds issued under the Senior Debt Resolutions), WFMCS has the right to cause a mandatory tender of the 2020B Senior Revenue Bonds and accelerate (depending on the event, seven days after the occurrence, or for certain events, only after 180 days' notice) Metropolitan's obligation to repay the 2020B Senior Revenue Bonds.

In connection with the execution of the 2020 Direct Purchase Agreement, Metropolitan designated the principal payable on the 2020B Senior Revenue Bonds on the Mandatory Tender Date as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable in connection therewith on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal of the 2020B Senior Revenue Bonds over a period of 30 years at a fixed interest rate of approximately 5.00 percent.

Metropolitan has previously, and may in the future, enter into one or more self-liquidity revolving credit agreements which may be drawn upon for the purpose of paying the purchase price of any Self-Liquidity Bonds issued by Metropolitan, the repayment obligations of Metropolitan under which may be secured as either Senior Parity Obligations or Subordinate Parity Obligations.

Senior Parity Obligations

Wells Fargo Revolving Credit Facility. In June 2022, Metropolitan entered into a note purchase and continuing covenant agreement with Wells Fargo Bank, National Association ("Wells Fargo"), for the purchase by Wells Fargo and sale by Metropolitan from time-to-time of short-term flexible rate revolving notes (the "Wells Fargo Revolving Credit Facility"). Pursuant to the Wells Fargo Revolving Credit Facility, Metropolitan may borrow, pay down and re-borrow amounts, through the issuance and sale from time to time of short-term notes (with maturity dates not exceeding one year from their delivery date), in an aggregate principal amount not to exceed $225 million (including, subject to certain terms and conditions, notes to refund

maturing notes) to be purchased by Wells Fargo during the term of Wells Fargo's commitment to purchase notes thereunder, which commitment currently extends to May 31, 2024. Metropolitan made a draw on the Wells Fargo Revolving Credit Facility on June 29, 2022 and issued $35,645,000 principal amount of short-term notes thereunder to provide temporary financing for the refunding of a portion of its outstanding Subordinate Water Revenue Refunding Bonds, 2017 Series B. A portion of the proceeds of Metropolitan's Water Revenue Refunding Bonds, 2022 Series A was applied on the date of delivery of such bonds to repay and redeem all of the then outstanding notes under the Wells Fargo Revolving Credit Facility. As of July 7, 2022, Metropolitan had outstanding $0 of short-term notes under the Wells Fargo Revolving Credit Facility.

Notes under the Wells Fargo Revolving Credit Facility bear interest at a fluctuating rate of interest per annum equal to: (a) for taxable borrowings, the secured overnight financing rate as administered by the Federal Reserve Bank of New York (or a successor administrator) ("SOFR") as determined in accordance with the Wells Fargo Revolving Credit Facility for each day ("Daily Simple SOFR") plus a spread of 0.28 percent (so long as the current credit ratings on Metropolitan's Senior Revenue Bonds issued under the Senior Debt Resolutions are maintained); and (b) for tax-exempt borrowings, 80 percent of Daily Simple SOFR plus a spread of 0.26 percent (so long as the current credit ratings on Metropolitan's Senior Revenue Bonds issued under the Senior Debt Resolutions are maintained), subject, in each case to an applicable maximum interest rate, which shall not, in any case, exceed 18 percent. Subject to the satisfaction of certain terms and conditions, any future unpaid principal borrowed under the Wells Fargo Revolving Credit Facility remaining outstanding at the May 31, 2024 stated commitment expiration date of the Wells Fargo Revolving Credit Facility may be refunded by and exchanged for term notes payable by Metropolitan in approximately equal semi-annual principal installments over a period of approximately three years. Any such term notes will bear interest at a fluctuating rate of interest per annum equal to, for each day, the highest of: (i) the Prime Rate in effect at such time plus one percent; (ii) the Federal Funds Rate in effect at such time plus two percent; or (iii) in the case of taxable term notes, ten percent, and in the case of tax-exempt term notes, seven percent; plus, for each of (i), (ii) or (iii), a spread of two percent.

Under the Wells Fargo Revolving Credit Facility, upon a failure by Metropolitan to pay principal or interest of any note thereunder, a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, certain acts of bankruptcy or insolvency, or other specified events of default (including if any of Fitch, S&P or Moody's shall have assigned a credit rating below "A–" or "A3," or if each of Fitch, S&P and Moody's shall have assigned a credit rating below "BBB–" or "Baa3," to Senior Revenue Bonds issued under the Senior Debt Resolutions), Wells Fargo has the right to terminate its commitments and may accelerate (depending on the event, seven days after the occurrence, or for certain events, only after 180 days' notice, or, in connection with certain acts of bankruptcy or insolvency or in the event of an acceleration of Metropolitan debt by another lender, credit enhancer or swap counterparty, immediately) Metropolitan's obligation to repay its borrowings.

Metropolitan has secured its obligation to pay principal and interest on notes evidencing borrowings under the Wells Fargo Revolving Credit Facility as Senior Parity Obligations.

In connection with the execution of the Wells Fargo Revolving Credit Facility, Metropolitan designated the principal and interest payable on the notes thereunder as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Wells Fargo Revolving Credit Facility on a schedule of Assumed Debt Service for any outstanding draws.

Metropolitan has previously, and may in the future, enter into one or more other or alternative short-term revolving credit facilities, the repayment obligations of Metropolitan under which may be secured as either Senior Parity Obligations or Subordinate Parity Obligations.

Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations

Subordinate Revenue Bonds

The water revenue bonds issued under the Subordinate Debt Resolutions outstanding as of July 7, 2022, are set forth below:

Outstanding Subordinate Revenue Bonds

Name of Issue	Principal Outstanding
Subordinate Water Revenue Refunding Bonds, 2017 Series A	$ 204,760,000
Subordinate Water Revenue Refunding Bonds, 2017 Series B	71,285,000
Subordinate Water Revenue Bonds, 2017 Series C[(1)]	80,000,000
Subordinate Water Revenue Refunding Bonds, 2017 Series D[(1)]	95,630,000
Subordinate Water Revenue Refunding Bonds, 2017 Series E[(1)]	95,625,000
Subordinate Water Revenue Refunding Bonds, 2018 Series A	10,865,000
Subordinate Water Revenue Bonds, 2018 Series B	64,345,000
Subordinate Water Revenue Refunding Bonds, 2019 Series A	209,060,000
Subordinate Water Revenue Refunding Bonds, 2020 Series A	152,455,000
Subordinate Water Revenue Refunding Bonds, 2021 Series A[(1)]	222,160,000
Total	**$1,206,185,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.

Variable Rate Bonds

As of July 7, 2022, of the $1.21 billion outstanding Subordinate Revenue Bonds, $493.4 million were variable rate obligations. The outstanding variable rate obligations include Subordinate Revenue Bonds that are variable rate demand obligations supported by a standby bond purchase agreement between Metropolitan and a liquidity provider ("Liquidity Supported Subordinate Revenue Bonds") and Subordinate Revenue Bonds that are bonds bearing interest in a SIFMA Index Mode and subject to mandatory tender for purchase by Metropolitan under certain circumstances, including on certain scheduled mandatory tender dates (unless earlier remarketed or otherwise retired) ("Index Tender Bonds").

Liquidity Supported Subordinate Revenue Bonds. As of July 7, 2022, Metropolitan had $222.16 million of outstanding Liquidity Supported Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions, consisting of Metropolitan's Variable Rate Subordinate Water Revenue Refunding Bonds, 2021 Series A (Federally Taxable) (the "Subordinate 2021A Bonds").

The interest rate on Metropolitan's variable rate Subordinate 2021A Bonds is reset on a weekly basis. While bearing interest at a weekly rate, such variable rate demand obligations are subject to optional tender on any business day upon seven days' notice by the owners thereof and mandatory tender upon specified events. Such variable rate demand obligations are supported by a standby bond purchase agreement by and between Metropolitan and Bank of America, N.A., as liquidity provider, that provide for the purchase of the variable rate Subordinate 2021A Bonds by the liquidity provider upon tender of such variable rate Subordinate 2021A Bonds and a failed remarketing. Metropolitan has secured its obligation to repay principal and interest advanced under the standby bond purchase agreement as a Subordinate Parity Obligation. A decline in the creditworthiness of the liquidity provider will likely result in an increase in the interest rate of the variable rate Subordinate 2021A Bonds, as well as an increase in the risk of a failed remarketing of such tendered variable rate Subordinate 2021A Bonds. Variable rate Subordinate 2021A Bonds purchased by the liquidity provider ("bank bonds") would initially bear interest at a per annum interest rate equal to, the highest of (i) the Prime Rate plus one percent, (ii) Federal Funds Rate plus two percent, and (iii) seven percent (with the spread or rate

increasing in the case of each of (i), (ii) and (iii) of this clause (b) by one percent after 90 days). To the extent such bank bonds have not been remarketed or otherwise retired as of the earlier of the 90th day following the date such bonds were purchased by the liquidity provider or the stated expiration date of the related liquidity facility, Metropolitan's obligation to reimburse the liquidity provider may convert the term of the variable rate bonds purchased by the liquidity provider into a term loan payable under the terms of the liquidity facility in ten equal semi-annual installments over a period ending on the fifth anniversary of the date on which the variable rate Subordinate 2021A Bonds were purchased by the liquidity provider. In addition, upon an event of default under any such liquidity facility, including a failure by Metropolitan to pay principal or interest due to the liquidity provider, failure by Metropolitan to perform or observe its covenants under the standby bond purchase agreement, a default in other specified indebtedness of Metropolitan, or other specified events of default (including a reduction in the credit rating assigned to Senior Revenue Bonds issued under the Senior Debt Resolutions by any of Fitch, S&P or Moody's below "A–" or "A3," as applicable), the liquidity provider could require all bank bonds to be subject to immediate mandatory redemption by Metropolitan.

SIFMA Mode Index Tender Bonds. Metropolitan's Subordinate Water Revenue Bonds, 2017 Series C, Subordinate Water Revenue Refunding Bonds, 2017 Series D and Subordinate Water Revenue Refunding Bonds, 2017 Series E (collectively, the "Subordinate 2017 Series C, D and E Bonds") bear interest at a rate that fluctuates weekly based on the SIFMA Municipal Swap Index plus a spread. The Subordinate 2017 Series C, D and E Bonds are Index Tender Bonds and are subject to mandatory tender under certain circumstances, including on certain scheduled mandatory tender dates (unless earlier remarketed or otherwise retired). Metropolitan anticipates that it will pay the purchase price of tendered Subordinate 2017 Series C, D and E Bonds from the proceeds of remarketing such Index Tender Bonds or from other available funds. Metropolitan's obligation to pay the purchase price of any such tendered Subordinate 2017 Series C, D and E Bonds is a special limited obligation of Metropolitan payable solely from Net Operating Revenues subordinate to the Senior Revenue Bonds and Senior Parity Obligations and on parity with the other outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations. Metropolitan has not secured any liquidity facility or letter of credit to support the payment of the purchase price of Subordinate 2017 Series C, D and E Bonds in connection with a scheduled mandatory tender. Failure to pay the purchase price of any Subordinate 2017 Series C, D and E Bonds on a scheduled mandatory tender date for such Index Tender Bonds for a period of five business days following written notice by any Owner of such Subordinate 2017 Series C, D and E Bonds will constitute an event of default under the Subordinate Debt Resolutions, upon the occurrence and continuance of which the owners of 25 percent in aggregate principal amount of the Subordinate Revenue Bonds then outstanding may elect a bondholders' committee to exercise rights and powers of such owners under the Subordinate Debt Resolutions, including the right to declare the entire unpaid principal of the Subordinate Revenue Bonds then outstanding to be immediately due and payable.

The current mandatory tender dates and related tender periods for the Index Tender Bonds outstanding as of July 7, 2022, are summarized in the following table:

Index Tender Bonds

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
Subordinate 2017 Series C	July 3, 2017	$ 80,000,000	May 21, 2024	July 1, 2047
Subordinate 2017 Refunding Series D	July 3, 2017	95,630,000	May 21, 2024	July 1, 2037
Subordinate 2017 Refunding Series E	July 3, 2017	95,625,000	May 21, 2024	July 1, 2037
Total		**$271,255,000**		

Source: Metropolitan.

Other Junior Obligations

Metropolitan currently is authorized to issue up to $400,000,000 of Commercial Paper Notes payable from Net Operating Revenues on a basis subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. Although no Commercial Paper Notes are currently outstanding, the authorization remains in full force and effect and Metropolitan may issue Commercial Paper Notes from time to time.

General Obligation Bonds

As of July 7, 2022, $20,175,000 aggregate principal amount of general obligation bonds payable from *ad valorem* property taxes were outstanding. See "METROPOLITAN REVENUES–General" and "–Revenue Allocation Policy and Tax Revenues" in this Appendix A. Metropolitan's revenue bonds are not payable from the levy of *ad valorem* property taxes.

General Obligation Bonds	Amount Issued[(1)]	Principal Outstanding
Waterworks General Obligation Refunding Bonds, 2019 Series A	$16,755,000	$ 6,510,000
Waterworks General Obligation Refunding Bonds, 2020 Series A	13,665,000	13,665,000
Total	**$30,420,000**	**$20,175,000**

Source: Metropolitan.

(1) Voters authorized Metropolitan to issue $850,000,000 of Waterworks General Obligation Bonds, Election 1966, in multiple series, in a special election held on June 7, 1966. This authorization has been fully utilized. This table lists bonds that refunded such Waterworks General Obligation Bonds, Election 1966.

State Water Contract Obligations

General. As described herein, in 1960, Metropolitan entered into its State Water Contract with DWR to receive water from the State Water Project. All expenditures for capital and operations, maintenance, power and replacement costs associated with the State Water Project facilities used for water delivery are paid for by the 29 Contractors that have executed State water supply contracts with DWR, including Metropolitan. Contractors are obligated to pay allocable portions of the cost of construction of the system and ongoing operating and maintenance costs through at least 2035, regardless of quantities of water available from the project. Other payments are based on deliveries requested and actual deliveries received, costs of power required for actual deliveries of water, and offsets for credits received. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. Metropolitan's State Water Contract accounts for nearly one-half of the total entitlement for State Water Project water contracted for by all Contractors.

DWR and other State Water Contractors, including Metropolitan, have reached an Agreement in Principle to extend their State water supply contracts to 2085 and to make certain changes related to the financial management of the State Water Project in the future. See "METROPOLITAN'S WATER SUPPLY–State Water Project" in this Appendix A.

Metropolitan's payment obligation for the State Water Project for the fiscal year ended June 30, 2021 was $521.8 million, which amount reflects prior year's credits of $52.4 million. For the fiscal year ended June 30, 2021, Metropolitan's payment obligations under the State Water Contract were approximately 33 percent of Metropolitan's total annual expenses. A portion of Metropolitan's annual property tax levy is for payment of State Water Contract obligations, as described above under "METROPOLITAN REVENUES–Revenue Allocation Policy and Tax Revenues" in this Appendix A. Any deficiency between tax levy receipts and Metropolitan's State Water Contract obligations is expected to be paid from Operating Revenues, as

defined in the Senior Debt Resolutions. See Note 9(a) to Metropolitan's audited financial statements in Appendix B for an estimate of Metropolitan's payment obligations under the State Water Contract. See also "–Power Sources and Costs; Related Long-Term Commitments" for a description of current and future costs for electric power required to operate State Water Project pumping systems and a description of litigation involving the federal relicensing of the Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville.

Metropolitan capitalizes its share of the State Water Project capital costs as participation rights in State Water Project facilities as such costs are billed by DWR. Unamortized participation rights essentially represent a prepayment for future water deliveries through the State Water Project system. Metropolitan's share of system operating and maintenance costs are annually expensed.

DWR and various subsets of the State Water Contractors have entered into amendments to the State water supply contracts related to the financing of certain State Water Project facilities. The amendments establish procedures to provide for the payment of construction costs financed by DWR bonds by establishing separate subcategories of charges to produce the revenues required to pay all of the annual financing costs (including coverage on the allocable bonds) relating to the financed project. If any affected Contractor defaults on payment under certain of such amendments, the shortfall may be collected from the non-defaulting affected Contractors, subject to certain limitations.

These amendments represent additional long-term obligations of Metropolitan, as described below.

Devil Canyon-Castaic Contract. On June 23, 1972, Metropolitan and five other Southern California public agencies entered into a contract (the "Devil Canyon-Castaic Contract") with DWR for the financing and construction of the Devil Canyon and Castaic power recovery facilities, located on the aqueduct system of the State Water Project. Under this contract, DWR agreed to build the Devil Canyon and Castaic facilities, using the proceeds of revenue bonds issued by DWR under the State Central Valley Project Act. DWR also agreed to use and apply the power made available by the construction and operation of such facilities to deliver water to Metropolitan and the other contracting agencies. Metropolitan, in turn, agreed to pay to DWR 88 percent of the debt service on the revenue bonds issued by DWR. For calendar year 2021, this represented a payment of $7.8 million, and Metropolitan is expected to pay $7.97 million in calendar year 2022. In addition, Metropolitan agreed to pay 78.5 percent of the operation and maintenance expenses of the Devil Canyon facilities and 96 percent of the operation and maintenance expenses of the Castaic facilities. Metropolitan's obligations for debt service under the Devil Canyon-Castaic Contract continue until the bonds are fully retired in 2022 even if DWR is unable to operate the facilities or deliver power from these facilities. Metropolitan will continue to be obligated to pay for operation and maintenance expenses following retirement of the bonds.

Off-Aqueduct Power Facilities. In addition to system "on-aqueduct" power facilities costs, DWR has, either on its own or by joint venture, financed certain off-aqueduct power facilities. The power generated is utilized by the system for water transportation and other State Water Project purposes. Power generated in excess of system needs is marketed to various utilities and the CAISO. Metropolitan is entitled to a proportionate share of the revenues resulting from sales of excess power. By virtue of a 1982 amendment to the State Water Contract and the other water supply contracts, Metropolitan and the other water Contractors are responsible for paying the capital and operating costs of the off-aqueduct power facilities regardless of the amount of power generated.

East Branch Enlargement Amendment. In 1986, Metropolitan's State Water Contract and the water supply contracts of certain other State Water Contractors were amended for the purpose, among others, of financing the enlargement of the East Branch of the California Aqueduct. Under the amendment, enlargement of the East Branch can be initiated either at Metropolitan's request or by DWR finding that enlargement is needed to meet demands. In March 2022, DWR prepared a draft report for East Branch Enlargement cost reallocation methods. The report describes the methods used to determine the East Branch Enlargement cost

allocation with the distinction between enlargement and improvement categories and the associated cost recovery methodology.

The amendment establishes a separate subcategory of the Transportation Charge under the State Water Contract for the East Branch Enlargement and provides for the payment of costs associated with financing and operating the East Branch Enlargement. Under the amendment, the annual financing costs for such facilities financed by bonds issued by DWR are allocated among the participating Contractors based upon the delivery capacity increase allocable to each participating Contractor. Such costs include, but are not limited to, debt service, including coverage requirements, deposits to reserves, and certain operation and maintenance expenses, less any credits, interest earnings or other moneys received by DWR in connection with this facility.

If any participating Contractor defaults on payment of its allocable charges under the amendment, among other things, the non-defaulting participating Contractors may assume responsibility for such charges and receive delivery capability that would otherwise be available to the defaulting participating Contractor in proportion to the non-defaulting Contractor's participation in the East Branch Enlargement. If participating Contractors fail to cure the default, Metropolitan will, in exchange for the delivery capability that would otherwise be available to the defaulting participating Contractor, assume responsibility for the capital charges of the defaulting participating Contractor.

Water System Revenue Bond Amendment. In 1987, the State Water Contract and other water supply contracts were amended for the purpose of financing State Water Project facilities through revenue bonds. This amendment establishes a separate subcategory of the Delta Water Charge and the Transportation Charge under the State water supply contracts for projects financed with DWR water system revenue bonds. This subcategory of charge provides the revenues required to pay the annual financing costs of the bonds and consists of two elements. The first element is an annual charge for repayment of capital costs of certain revenue bond financed water system facilities under the existing water supply contract procedures. The second element is a water system revenue bond surcharge to pay the difference between the total annual charges under the first element and the annual financing costs, including coverage and reserves, of DWR's water system revenue bonds.

If any Contractor defaults on payment of its allocable charges under this amendment, DWR is required to allocate a portion of the default to each of the non-defaulting Contractors, subject to certain limitations, including a provision that no non-defaulting Contractor may be charged more than 125 percent of the amount of its annual payment in the absence of any such default. Under certain circumstances, the non-defaulting Contractors would be entitled to receive an allocation of the water supply of the defaulting Contractor.

The following table sets forth Metropolitan's projected costs of State Water Project water based upon DWR's Appendix B to Bulletin 132-20 (an annual report produced by DWR setting forth data and computations used by the State in determining State Water Contractors' Statements of Charges), Metropolitan's share of the forecasted costs associated with the planning of a single tunnel Bay-Delta conveyance project (see "METROPOLITAN'S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – *Bay-Delta Planning Activities"* and " – *Delta Conveyance*"), and power costs forecasted by Metropolitan.

The projections for fiscal year 2021-22 are revised from the projections adopted in the fiscal year 2020-21 and 2021-22 biennial budget and based on results through March 2022 on a modified accrual basis. The projections for fiscal years 2022-23 through 2026-27 reflect Metropolitan's biennial budget for fiscal years 2022-23 and 2023-24, which includes a ten-year financial forecast, and are on a cash basis. See also "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. The projections reflect certain assumptions concerning future events and circumstances which may not occur or materialize. Actual costs may vary from these projections if such events and circumstances do not occur as expected or materialize, and such variances may be material.

PROJECTED COSTS OF METROPOLITAN
FOR STATE WATER CONTRACT AND DELTA CONVEYANCE
(Dollars in Millions)

Year Ending June 30	Capital Costs[(1)]	Minimum OMP&R[(1)]	Power Costs[(2)]	Refunds & Credits[(1)]	Delta Conveyance[(3)]	Total[(4)]
2022	$193.9	$288.4	$120.7	$(65.5)	$25.0	$567.5
2023	203.7	304.2	211.6	(67.8)	30.0	681.7
2024	218.8	305.7	258.6	(56.3)	34.5	761.2
2025	184.6	322.1	289.1	(59.5)	11.6	747.9
2026	191.9	336.7	295.7	(51.2)	--	773.1
2027	201.1	352.0	298.8	(48.5)	--	803.4

Source: Metropolitan.

(1) Capital Costs, Minimum Operations, Maintenance, Power and Replacement ("OMP&R") and Refunds and Credits projections are based on DWR's Appendix B to Bulletin 132-20.

(2) Power costs are forecasted by Metropolitan based on a 15 percent State Water Project allocation in calendar year 2022, 40 percent State Water Project allocation in calendar 2023, and a 50 percent State Water Project allocation thereafter. Availability of State Water Project supplies vary, and deliveries may include transfers and storage. All deliveries are based upon availability, as determined by hydrology, water quality and wildlife conditions. See "METROPOLITAN'S WATER SUPPLY–State Water Project" and "–Endangered Species Act and Other Environmental Considerations Relating to Water Supply" in this Appendix A.

(3) Based on Metropolitan's share of the forecasted planning costs for a single tunnel project. Does not include any capital costs associated with any future proposed Bay-Delta conveyance project.

(4) Totals may not add due to rounding.

Power Sources and Costs; Related Long-Term Commitments

Current and future costs for electric power required for operating the pumping systems of the CRA and the State Water Project are a substantial part of Metropolitan's overall expenses. Metropolitan's power costs include various ongoing fixed annual obligations under its contracts with the U.S. Department of Energy Western Area Power Administration and the Bureau of Reclamation for power from the Hoover Power Plant and Parker Power Plant, respectively. Expenses for electric power for the CRA for the fiscal years 2019-20 and 2020-21 were approximately $39.6 million and $50.5 million, respectively. Expenses for electric power and transmission service for the State Water Project for fiscal years 2019-20 and 2020-21 were approximately $134.0 million and $118.3 million, respectively. Electricity markets are subject to volatility and Metropolitan is unable to give any assurance with respect to the magnitude of future power costs.

Colorado River Aqueduct. Approximately 50 percent of the annual power requirements for pumping at full capacity (1.25 million acre-feet of Colorado River water) in Metropolitan's CRA are secured through long-term contracts for energy generated from federal facilities located on the Colorado River (Hoover Power Plant and Parker Power Plant). Payments made under the Hoover Power Plant and Parker Power Plant contracts are operation and maintenance expenses. These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan's service area.

As provided for under the Hoover Power Allocation Act of 2011 (H.R. 470), Metropolitan has executed a 50-year agreement with the Western Area Power Administration for the continued purchase of electric energy generated at the Hoover Power Plant through September 2067, succeeding Metropolitan's prior Hoover contract that expired on September 30, 2017.

Depending on pumping conditions, Metropolitan can require additional energy in excess of the base resources available to Metropolitan from the Hoover Power Plant and Parker Power Plant. The remaining up to approximately 50 percent of annual pumping power requirements for full capacity pumping on the CRA is obtained through energy purchases from municipal and investor-owned utilities, third party suppliers, or the CAISO markets. Metropolitan is a member of the Western Systems Power Pool ("WSPP") and utilizes its

industry standard form contract to make wholesale power purchases at market cost. The current drought conditions have reduced the water level of Lake Mead and led to declining generation output from Hoover Dam, a condition that is expected to remain for the next several years. This, combined with continued high pumping demand on the CRA, will likely lead to increased reliance on supplemental energy purchases from the WSPP or CAISO markets and continued higher than normal energy costs for the CRA.

Gross diversions of water from Lake Havasu for fiscal years 2019-20 and 2020-21 were approximately 552,000 acre-feet and 1,026,000 acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and storage programs. In fiscal years 2019-20 and 2020-21, Metropolitan sold approximately 54,000 megawatt-hours and purchased approximately 800,000 megawatt-hours, respectively, of additional energy.

Metropolitan has agreements with the Arizona Electric Power Cooperative ("AEPCO") to provide transmission and energy purchasing services to support CRA power operations. The term of these agreements extends to December 31, 2035. AEPCO's subsidiary, ACES, provides energy scheduling services for Metropolitan's share of Hoover and Parker generation and CRA pumping load.

State Water Project. The State Water Project's power requirements are met from a diverse mix of resources, including State-owned hydroelectric generating facilities. DWR has short-term contracts with Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Solar Star California XLIV, LLC (Solar), Dominion Solar Holdings (Solar), and Solverde I, LLC (Solar). The remainder of the State Water Project power needs is met by purchases from the CAISO.

DWR is seeking renewal of the license issued by FERC for the State Water Project's Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville. A Settlement Agreement containing recommended conditions for the new license was submitted to FERC in March 2006. That agreement was signed by over 50 stakeholders, including Metropolitan and other State Water Contractors. With only a few minor modifications, FERC staff recommended that the Settlement Agreement be adopted as the condition for the new license. DWR issued a final EIR for the relicensing project on July 22, 2008.

Butte County and Plumas County filed separate lawsuits against DWR challenging the adequacy of the final EIR. This lawsuit also named all of the signatories to the Settlement Agreement, including Metropolitan, as "real parties in interest," since they could be adversely affected by this litigation. On September 5, 2019, the Court of Appeal ruled that review pursuant to CEQA is preempted in certain respects by the Federal Power Act. The case is now before the California Supreme Court. The case has been fully briefed and oral argument was completed. If the decision is affirmed, the case will be dismissed. If the California Supreme Court finds in favor of the plaintiffs, the case will be remanded to the California Court of Appeal for a determination of sufficiency regarding the merits of the CEQA petition.

Regulatory permits and authorizations are also required before the new license can take effect. In December 2016, NMFS issued a biological opinion setting forth the terms and conditions under which the relicensing project must operate in order to avoid adverse impacts to threatened and endangered species. This was the last major regulatory requirement prior to FERC issuing a new license. Following the 2017 Oroville Dam spillway incident, Butte County, the City of Oroville, and others requested that FERC not issue a new license until an Independent Forensic Team ("IFT") delivered their final report to FERC and FERC has had adequate time to review the report. The Final IFT report was delivered on January 5, 2018. DWR submitted a plan to address the findings of the report to FERC on March 12, 2018. See "METROPOLITAN'S WATER SUPPLY–State Water Project –2017 Oroville Dam Spillway Incident." Metropolitan anticipates that FERC will issue the new license; however, the timeframe for FERC approval is not currently known. However, FERC has issued one-year renewals of the existing license since its initial expiration date on January 31, 2007 and is expected to issue successive one-year renewals until a new license is obtained.

DWR operational studies for 2022 indicate that the Hyatt Power Plant may have reduced generation in the Fall as water levels in Lake Oroville are projected to go below the operational elevation for the turbines. Generation would resume once lake levels recover. In the event that lake levels remain below the turbine generating elevation, DWR would need to purchase supplemental energy to make up for lost generation which would result in higher energy costs to the State Water Project, and consequentially, higher costs for Metropolitan.

DWR receives transmission service from the CAISO. The transmission service providers participating in the CAISO may seek increased transmission rates, subject to the approval of FERC. DWR has the right to contest any such proposed increase. DWR may also be subject to increases in the cost of transmission service as new electric grid facilities are constructed.

On September 10, 2018, Governor Brown signed SB 100 into law, which took effect on January 1, 2019. SB 100 establishes a goal of providing 100 percent carbon-free electricity by 2045 and increases the 2030 Renewables Portfolio Standard ("RPS") requirement for retail electric utilities from 50 percent to 60 percent. Simultaneously, the Governor announced Executive Order B-55-18 directing state agencies to develop a framework to achieve and maintain carbon neutrality by 2045. Metropolitan and DWR are not subject to the RPS requirements. However, as a state agency, DWR is subject to the Executive Order. DWR has an existing climate action plan in order to achieve carbon neutrality by 2045. Legislation has been proposed in the State Senate that would accelerate the date by which 100 percent of electricity procured to serve state agencies, including DWR, is to be from eligible renewable energy resources and zero-carbon resources from December 31, 2045 to December 31, 2030, and would mandate certain criteria and process requirements that would apply to DWR in connection with its procurement of renewable and zero-carbon resources for the State Water Project. If enacted in its present form, the requirements of such legislation may result in higher energy costs to the State Water Project, and consequentially, higher costs for Metropolitan.

On October 9, 2019, Governor Newsom signed SB 49 into law. SB 49 requires Natural Resources, in collaboration with the Energy Commission and the Department of Water Resources to assess by January 1, 2022 the opportunities and constraints for potential operational and structural upgrades to the State Water Project to aid California in achieving its climate and energy goals, and to provide associated recommendations consistent with California's energy goals. DWR submitted its draft SB 49 report to the Governor's office for review in April 2022.

Defined Benefit Pension Plan and Other Post-Employment Benefits

Metropolitan is a member of the California Public Employees' Retirement System ("PERS"), a multiple-employer pension system that provides a contributory defined-benefit pension for substantially all Metropolitan employees. PERS provides retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State. PERS is a contributory plan deriving funds from employee contributions as well as from employer contributions and earnings from investments. A menu of benefit provisions is established by State statutes within the Public Employees' Retirement Law. Metropolitan selects optional benefit provisions from the benefit menu by contract with PERS.

Metropolitan makes contributions to PERS based on actuarially determined employer contribution rates. The actuarial methods and assumptions used are those adopted by the PERS Board of Administration ("PERS Board"). Employees hired prior to January 1, 2013 are required to contribute 7.00 percent of their earnings (excluding overtime pay) to PERS. Pursuant to the current memoranda of understanding, Metropolitan contributes the requisite 7.00 percent contribution for all employees represented by the Management and Professional Employees Association, the Association of Confidential Employees, Supervisors and Professional Personnel Association and AFSCME Local 1902 and who were hired prior to January 1, 2012. Employees in all four bargaining units who were hired on or after January 1, 2012 but before January 1, 2013, pay the full 7.00 percent contribution to PERS for the first five years of employment. After the employee completes five years of employment, Metropolitan contributes the requisite 7.00 percent

contribution. Metropolitan also contributes the entire 7.00 percent on behalf of unrepresented employees. Employees hired on or after January 1, 2013 and who are "new" PERS members as defined by Public Employees' Pension Reform Act of 2013 pay a member contribution of 6.00 percent in fiscal year 2019-20 and 7.25 percent in fiscal years 2020-21 through 2022-23. In addition, Metropolitan is required to contribute the actuarially determined remaining amounts necessary to fund the benefits for its members.

The contribution requirements of the plan members are established by State statute and the employer contribution rate is established and may be amended by PERS. The fiscal year contributions were/are based on the following actuarial reports and discount rates:

Fiscal Year	Actuarial Valuation	Discount Rate
2019-20	June 30, 2017	7.25%
2020-21	June 30, 2018	7.00%
2021-22	June 30, 2019	7.00%
2022-23	June 30, 2020	7.00%

The most recent actuarial valuation reports of PERS, as well as other information concerning benefits and other matters, are available on the PERS website at https://www.calpers.ca.gov/page/employers/actuarial-resources/public-agency-actuarial-valuation-reports. Such information is not incorporated by reference herein. Metropolitan cannot guarantee the accuracy of such information. Actuarial valuations are "forward-looking" information that reflect the judgment of the fiduciaries of the pension plans, and are based upon a variety of assumptions, one or more of which may not materialize or be changed in the future. Actuarial valuations will change with the future experience of the pension plans.

In July 2021, PERS' Funding Risk Mitigation Policy triggered an automatic discount rate reduction from 7.0% to 6.8% due to the double-digit investment return for fiscal year 2021. In November 2021, PERS Board voted to retain the 6.8% discount rate, which will increase Metropolitan's contribution levels beginning fiscal year 2023-24.

Metropolitan was required to contribute 29.97 percent and 32.43 percent of annual projected payroll for fiscal years 2019-20 and 2020-21, respectively. Metropolitan's actual contribution for fiscal years 2019-20 and 2020-21 were $77.6 million or 34.38 percent of annual covered payroll and $85.7 million or 36.42 percent of annual covered payroll, respectively. The fiscal years 2019-20 and 2020-21 actual contribution included $11.5 million or 5.10 percent and $11.4 million or 4.85 percent of annual covered payroll, respectively, for Metropolitan's pick-up of the employees' 7.00 percent share. For fiscal years 2021-22 and 2022-23, Metropolitan is required to contribute 34.39 percent and 35.74 percent, respectively, of annual projected payroll, in addition to member contributions paid by Metropolitan.

Metropolitan's required contributions to PERS fluctuate each year and include a normal cost component and a component equal to an amortized amount of the unfunded liability. Many assumptions are used to estimate the ultimate liability of pensions and the contributions that will be required to meet those obligations. The PERS Board has adjusted and may in the future further adjust certain assumptions used in the PERS actuarial valuations, which may increase Metropolitan's required contributions to PERS in future years. Accordingly, Metropolitan cannot provide any assurances that its required contributions to PERS in future years will not significantly increase (or otherwise vary) from any past or current projected levels of contributions.

On December 21, 2016, the PERS Board approved lowering the discount rate to 7.00 percent over a three-year period. PERS has estimated that with a reduction in the rate of return to 7.00 percent, most employers could expect a rate increase of 1.00 percent to 3.00 percent of normal cost as a percent of payroll for miscellaneous plans and an increase in payments toward unfunded accrued liabilities of between 30 to 40

percent. As a result, required contributions of employers, including Metropolitan, are expected to increase. The change in discount rate is a change in actuarial assumption which is amortized over a 20-year period with a five-year ramp-up period. The first year of the five-year ramp-up would have been the rates for fiscal year 2019 (the 2016 valuation) and the last year of the five-year ramp-up would be fiscal year 2023.

Beginning with fiscal year 2017-18 PERS began collecting employer contributions towards the plan's unfunded liability as dollar amounts instead of the prior method of contribution rate. This change addresses potential funding issues that could arise from a declining payroll or reduction in the number of active members in the plan.

On December 19, 2017, the PERS Board adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for public agencies. These new assumptions were incorporated in the June 30, 2017 actuarial valuation and reflected in the required contribution for fiscal year 2019-20. In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management. The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017 valuation an inflation rate of 2.625 percent was used and for the June 30, 2018 and subsequent valuations, an inflation rate of 2.50 percent was/will be used.

The PERS Board has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the five-year ramp-up and ramp-down on unfunded accrued liability bases attributable to assumption changes and non-investment gains/losses. The new policy removes the five-year ramp-down on investment gains/losses. These changes apply only to new unfunded accrued liability bases established on or after June 30, 2019.

The impact of COVID-19 on retirement plans is not yet known and PERS actuaries will continue to monitor the effects and, where necessary, make future adjustments to actuarial assumptions.

The following table shows the funding progress of Metropolitan's pension plan.

Valuation Date	Accrued Liability ($ in billions)	Market Value of Assets ($ in billions)	Unfunded Accrued Liability ($ in billions)	Funded Ratio
6/30/20[(1)]	$2.625	$1.848	$(0.777)	70.4%
6/30/19	$2.534	$1.810	$(0.724)	71.4%
6/30/18	$2.433	$1.744	$(0.689)	71.7%
6/30/17	$2.269	$1.651	$(0.618)	72.7%
6/30/16	$2.166	$1.524	$(0.642)	70.3%
6/30/15	$2.060	$1.556	$(0.504)	75.5%
6/30/14	$1.983	$1.560	$(0.423)	78.7%
6/30/13	$1.805	$1.356	($0.449)	75.1%

(1) Most recent actuarial valuation available.

Source: California Public Employees' Retirement System.

The market value of assets reflected above is based upon the most recent actuarial valuation as of June 30, 2020. The actuarial valuation as of June 30, 2021 is not expected to be available before summer 2022. The June 30, 2021 valuation report will be used to establish the contribution requirements for fiscal year 2023-24. Increased volatility has been experienced in the financial markets in recent years. Significant losses in market value or failure to achieve projected investment returns could substantially increase unfunded pension liabilities and future pension costs. However, as noted above, under the amortization policy adopted by PERS, changes in the unfunded accrued liability due to actuarial gains or losses are amortized over a fixed 20-year period with a five-year ramp-up at the beginning and a five-year ramp-down at the end of the amortization period, and as a result the immediate fiscal impact of any one year's negative return on Metropolitan's contribution rates is reduced.

The following tables show the changes in Net Pension Liability and related ratios of Metropolitan's pension plan for fiscal years 2020-21 and 2019-20, and for fiscal years 2019-20 and 2018-19.

(Dollars in thousands)	06/30/21	6/30/20	Increase/ (Decrease)
Total Pension Liability	$2,578,818	$2,479,307	$99,511
Plan Fiduciary Net Position	1,854,231	1,810,312	43,919
Plan Net Pension Liability	$ 724,587	$ 668,995	$ 55,592
Plan fiduciary net position as a % of the total pension liability	71.90%	73.02%	
Covered payroll	$ 225,707	$ 212,558	
Plan net pension liability as a % of covered payroll	321.03%	314.74%	

(Dollars in thousands)	06/30/20	6/30/19	Increase/ (Decrease)
Total Pension Liability	$2,479,307	$2,376,778	$102,529
Plan Fiduciary Net Position	1,810,312	1,742,741	67,571
Plan Net Pension Liability	$ 668,995	$ 634,037	$34,958
Plan fiduciary net positions as a % of the total pension liability	73.02%	73.32%	
Covered payroll	$ 212,558	$ 204,635	
Plan net pension liability as a % of covered payroll	314,74%	309.84%	

The Net Pension Liability for Metropolitan's Miscellaneous Plan for the fiscal years ended June 30, 2020 and 2021 were measured as of June 30, 2019 and June 30, 2020, respectively, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of June 30, 2018 and June 30, 2019, respectively.

For more information on the plan, see APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC

FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)."

Metropolitan currently provides post-employment medical insurance to retirees and pays the post-employment medical insurance premiums to PERS. On January 1, 2012, Metropolitan implemented a longer vesting schedule for retiree medical benefits, which applies to all new employees hired on or after January 1, 2012. Payments for this benefit were $28.3 million in fiscal year 2019-20 and $23.2 million in fiscal year 2020-21. Under Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, Metropolitan is required to account for and report the outstanding obligations and commitments related to such benefits, commonly referred to as other post-employment benefits ("OPEB"), on an accrual basis.

The actuarial valuations dated June 30, 2017 and June 30, 2019, were released in March 2018 and June 2020, respectively. The 2017 valuation indicated that the Actuarially Determined Contribution ("ADC" formerly referred to as the Annual Required Contribution) in fiscal year 2019-20 was $28.1 million and the 2019 valuation indicated that the ADC was/will be $23.2 million and $23.6 million in fiscal years 2020-21 and 2021-22, respectively. The ADC was based on the entry-age normal actuarial cost method with contributions determined as a level percent of pay.

	June 30, 2019 Valuation	**June 30, 2017 Valuation**
Investment Rate of Return	6.75%	6.75%
Inflation	2.75%	2.75%
Salary Increases	3.00%	3.00%
Health Care Cost Trends	Medicare – starting at 6.3%, grading down to 4.0% over fifty-five years. Non-Medicare – starting at 7.25%, grading down to 4.0% over fifty-five years	Medicare – starting at 6.5%, grading down to 4.0% over fifty-seven years. Non-Medicare – starting at 7.5%, grading down to 4.0% over fifty-seven years.
Mortality, Termination, Disability	CalPERS 1997-2015 Experience Study Mortality projected fully generational with Scale MP-2019	CalPERS 1997-2011 Experience Study Mortality projected fully generational with Scale MP-2017
Affordable Care Act (ACA) Excise Tax	Not included. Repealed in December 2019.	2% load on retiree medical premium subsidy

As of June 30, 2019, the date of the most recent OPEB actuarial report, the unfunded actuarial accrued liability was estimated to be $164.3 million and projected to be $156.7 million at June 30, 2020. The amortization period for the unfunded actuarial accrued liability is 23 years closed with 17 years remaining as of fiscal year end 2020 and the amortization period of actuarial gains and losses is 15 years closed. Adjustments to the ADC include amortization of the unfunded actuarial accrued liability and actuarial gains and losses.

In September 2013, Metropolitan's Board established an irrevocable OPEB trust fund with the California Employers' Retiree Benefit Trust Fund. The market value of assets in the trust as of June 30, 2021 was $377.3 million. As part of its biennial budget process, the Board approved the full funding of the ADC for fiscal years 2022-23 and 2023-24.

As noted above, the COVID-19 pandemic and related economic consequences have contributed to increased volatility in the financial markets. Declines in the market value of the OPEB trust fund or failure to achieve projected investment returns could negatively affect the funding status of the trust fund and increase ADCs in the future. See also "GOVERNANCE AND MANAGEMENT–COVID-19 Pandemic" in this Appendix A.

The following tables show the changes in Net OPEB Liability and related ratios of Metropolitan's OPEB plan for fiscal years 2020-21 and 2019-20, and for fiscal years 2019-20 and 2018-19.

(Dollars in thousands)	06/30/21	6/30/20	Increase/ (Decrease)
Total OPEB Liability	$452,293	$434,759	$17,534
Plan Fiduciary Net Position	287,562	266,773	20,789
Plan Net OPEB Liability	$164,731	$167,986	$(3,255)
Plan fiduciary net positions as a % of the total OPEB liability	63.58%	61.36%	
Covered payroll	$225,707	$212,558	
Plan net OPEB liability as a % of covered payroll	72.98%	79.03%	

(Dollars in thousands)	06/30/20	6/30/19	Increase/ (Decrease)
Total OPEB Liability	$434,759	$468,185	$ (33,426)
Plan Fiduciary Net Position	266,773	239,851	26,922
Plan Net OPEB Liability	$167,986	$228,334	$(60,348)
Plan fiduciary net positions as a % of the total OPEB liability	61.36%	51.23%	
Covered payroll	$212,558	$204,635	
Plan net OPEB liability as a % of covered payroll	79.03%	111.58%	

The Net OPEB Liability for the years ended June 30, 2020 and 2021 were measured as of June 30, 2018 and June 30, 2019, respectively, and the Total OPEB Liability used to calculate the Net OPEB Liability as of such dates were determined by an annual actuarial valuation as of June 30, 2017 and June 30, 2019, respectively.

For more information on the OPEB plan, see APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)."

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below for fiscal years 2018-19 through 2020-21, provides a summary of revenues and expenses of Metropolitan prepared on a modified accrual basis. This is consistent with Metropolitan's budgetary reporting for such fiscal years, including the biennial budget for fiscal years 2020-21 and 2021-22. Under the modified accrual basis of accounting, revenues are recognized in the fiscal year in which they are earned, and expenses are recognized when incurred. Thus, water revenues are recognized in the month the water transaction occurs and expenses are recognized when goods have been received and services have been rendered.

Metropolitan's accounting method for budgetary purposes will change from modified accrual basis to cash basis beginning with fiscal year 2022-23. Metropolitan's biennial budget for fiscal years 2022-23 and 2023-24, which includes a ten-year financial forecast, has been prepared on a cash basis, and financial projections for fiscal years 2022-23 through 2026-27 prepared from the ten-year financial forecast on a cash basis are set forth in the table below. Under cash basis accounting, water sales revenues are recorded when received (two months after billed) and expenses when paid (approximately one month after invoiced). For comparative purposes only, Metropolitan has provided in the table below its fiscal year 2021-22 financial projections on both a modified accrual basis and a cash basis. The financial projection for fiscal year 2021-22 reflects revised projections based on results through March 2022. As reflected in the table below, the effect of utilizing a cash basis budgetary accounting method results, for presentation purposes, in lower projected Water Revenues (by $16.0 million) for the period (which are recorded when received approximately two months later on a cash basis) and lower projected Operation and Maintenance Expenses (by $39.0 million) for the period (which are recorded when paid on a cash basis). As noted, these differences are a function of timing differences for the recognition of revenues and expenses under the two methods when comparing the one fiscal year period to illustrate the change in budgetary accounting basis as a matter of presentation. Metropolitan's actual financial results will be unaffected. The table does not reflect the accrual basis of accounting, which is used to prepare Metropolitan's annual audited financial statements. Under accrual accounting, revenues are recorded when earned and expenses are recorded at the time the liabilities are incurred, regardless of the timing of related cash flows. The change to cash basis accounting is for budgetary purposes. Metropolitan will continue to calculate compliance with its rate covenants, limitations on additional bonds and other financial covenants in the Resolutions in accordance with their terms.

The projections are based on assumptions concerning future events and circumstances that may impact revenues and expenses and represent management's best estimates of results at this time. See the footnotes to the table below entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" for relevant assumptions, including projected water transactions and the average annual increase in the effective water rate, and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" for a discussion of potential impacts. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the projection period will vary from the projections and the variations may be material. The budget and projection information, and all other forward-looking statements in this Appendix A, are based on current expectations and are not intended as representations of facts or guarantees of future results.

The COVID-19 pandemic is still a significant ongoing event with the potential to adversely affect global, national, State, and local economic activity and prospects. Possible future COVID–19 outbreaks may affect actual results achieved. See "GOVERNANCE AND MANAGEMENT–COVID-19 Pandemic" in this Appendix A.

As noted herein, the financial projection for fiscal year 2021-22 reflects revised projections based on results through March 2022. For comparative purposes in connection with Metropolitan's change in accounting method for budgetary purposes, financial projections for fiscal year 2021-22 are provided on both a modified

accrual basis and a cash basis. The financial projections for fiscal years 2022-23 through 2026-27 in the table below reflect the biennial budget for fiscal years 2022-23 and 2023-24 as well as a ten-year financial forecast provided therein on a cash basis. The financial projections include Metropolitan's share of the forecasted costs associated with the planning of a single tunnel Bay-Delta conveyance project and certain costs associated with the RRWP. See "METROPOLITAN'S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – *Bay-Delta Planning Activities"* and "*– Delta Conveyance*" and "REGIONAL WATER RESOURCES–Local Water Supplies – *Recycled Water-Metropolitan Regional Recycled Water Program*" in this Appendix A.

Metropolitan's resource planning projections are developed using a comprehensive analytical process that incorporates demographic growth projections from recognized regional planning entities, historical and projected data acquired through coordination with local agencies, and the use of generally accepted empirical and analytical methodologies. Due to the unpredictability of future hydrologic conditions, Metropolitan's projected supplemental wholesale water transactions may vary considerably. Metropolitan's Water Resource Management provided the projections of the volume of annual water transactions for the fiscal years 2022-23 and 2023-24 biennial budget and ten-year financial forecast provided therein. The water transactions projections used to determine water rates and charges assume a transition from dry conditions to average year hydrology. Actual water transactions are likely to vary from projections. As shown in the chart entitled "Historical Water Transactions" below, water transactions can vary significantly from average and demonstrates the degree to which Metropolitan's commitments to meet supplemental demands can impact water transactions. In years when actual transactions exceed projections, the revenues from water transactions during the fiscal year will exceed budget, potentially resulting in an increase in financial reserves. In years when actual transactions are less than projections, Metropolitan uses various tools to manage reductions in revenues, such as reducing expenses below budgeted levels, reducing funding of capital projects from revenues, and drawing on reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. Metropolitan considers actual transactions, revenues and expenses, and financial reserve balances in setting rates for future fiscal years.

Projections in the following table reflect revised projections for fiscal year 2021-22 based on results through March 2022. For comparative purposes, fiscal year 2021-22 results are presented on both a modified accrual basis and a cash basis. Financial projections for fiscal years 2022-23 through 2026-27 reflect the biennial budget for fiscal year 2022-23 and 2023-24 and ten-year financial forecast provided therein on a cash basis. This includes the issuance of $1,040 million of bonds for fiscal years 2022-23 through 2026-27 to finance the CIP. The projections also assume the issuance of an additional $133.9 million of bonds in fiscal year 2022-23 to finance other capital expenditures of Metropolitan relating to conservation and supply programs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" and "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

Water transactions with member agencies were 1.57 million acre-feet in fiscal year 2020-21. Water transactions with member agencies are projected to be 1.65 million acre-feet for fiscal year 2021-22, 1.59 million acre-feet for fiscal year 2022-23, 1.54 million acre-feet for fiscal years 2023-24 and 2024-25, 1.51 million acre-feet for fiscal year 2025-26, and 1.53 million acre-feet for fiscal year 2026-27. Rates and charges increased by 4.0 percent on January 1, 2022. Rates and charges are projected to increase 5.0 percent for each of calendar years 2023 and 2024, 7.0 percent for calendar year 2025, 6.0 percent for each of calendar years 2026 and 2027. Actual rates and charges to be effective in 2025 and thereafter are subject to adoption by Metropolitan's Board.

The projections were prepared by Metropolitan and have not been reviewed by independent certified public accountants or any entity other than Metropolitan. Dollar amounts are rounded.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES[a]
Fiscal Years Ended June 30
(Dollars in Millions)

	Actual			Projected						
	Modified Accrual				Cash Basis					
	2019	2020	2021	2022	2022	2023	2024	2025	2026	2027
Water Revenues[b]	$1,149	$1,188	$1,405	$1,531	$1,515	$1,485	$1,522	$1,606	$1,677	$1,804
Additional Revenue Sources[c]	170	165	165	172	170	186	196	206	210	213
Total Operating Revenues	1,319	1,353	1,570	1,703	1,685	1,671	1,718	1,812	1,887	2,017
O&M, CRA Power and Water Transfer Costs[d]	(569)	(642)	(636)	(820)	(824)	(803)	(792)	(818)	(863)	(903)
Total SWC OMP&R and Power Costs[e]	(347)	(384)	(393)	(417)	(374)	(521)	(595)	(575)	(597)	(620)
Total Operation and Maintenance	(916)	(1,026)	(1,029)	(1,237)	(1,198)	(1,323)	(1,387)	(1,393)	(1,460)	(1,523)
Net Operating Revenues	$ 403	$ 327	$ 541	$ 466	$ 487	$ 347	$ 331	$ 419	$ 427	$ 494
Miscellaneous Revenue[f]	22	14	14	17	25	62	47	41	42	44
Transfer from Reserve Funds	--	--	--	--	--	--	--	--	--	--
Sales of Hydroelectric Power[g]	18	16	19	10	10	17	14	16	16	16
Interest on Investments[h]	34	20	10	7	6	6	10	13	16	19
Adjusted Net Operating Revenues[i]	477	377	584	500	528	433	401	489	501	574
Senior and Subordinate Obligations[j]	(333)	(272)	(279)	(275)	(275)	(283)	(296)	(300)	(319)	(333)
Funds Available from Operations	$ 144	$ 105	$ 305	$ 224	$ 253	$ 149	$ 105	$ 189	$ 182	$ 240
Debt Service Coverage on all Senior and Subordinate Bonds[k]	1.43	1.39	2.09	1.81	1.92	1.53	1.35	1.63	1.57	1.72
Funds Available from Operations	$ 144	$ 105	$ 305	$ 224	$ 253	$ 149	$ 105	$ 189	$ 182	$ 240
Other Revenues (Expenses)	(6)	(6)	(6)	(7)	(8)	(9)	(9)	(9)	(9)	(10)
Pay-As-You Go Construction	(128)	(39)	(110)	(135)	(135)	(135)	(135)	(175)	(175)	(175)
Pay-As-You Go Funded from Replacement & Refurbishment Fund Reserves	--	1	--	--	--	--	--	--	--	--
Total SWC Capital Costs Paid from Current Year Operations	(4)	(1)	--	--	--	--	--	--	--	--
Remaining Funds Available from Operations	6	60	189	82	110	5	(39)	5	(2)	55
Fixed Charge Coverage[l]	1.42	1.38	2.09	1.81	1.92	1.53	1.35	1.63	1.57	1.72
Property Taxes	145	147	161	158	158	138	164	127	143	155
General Obligation Bonds Debt Service	(14)	(13)	(7)	(8)	(8)	(2)	(2)	(2)	(2)	(2)
SWC Capital Costs Paid from Taxes	(131)	(134)	(154)	(141)	(141)	(136)	(162)	(125)	(141)	(153)
Net Funds Available from Current Year	$ 6	$ 60	$ 189	$ 82	$ 110	$ 5	$ (39)	$ 5	$ (2)	$ 55

Source: Metropolitan.

(Footnotes on next page)

(Footnotes to table on prior page)

(a) Unaudited. Prepared on a modified accrual basis through fiscal year 2021-22 and projected on a cash basis fiscal year 2022-23 forward. Projected revenues and expenses in fiscal year 2021-22 are based on results through March 2022 and revised from the projections provided in the adopted biennial budget for fiscal years 2020-21 and 2021-22. Projections for fiscal year 2022-23 through fiscal year 2026-27 are based on assumptions and estimates used in the biennial budget for fiscal years 2022-23 and 2023-24 and ten-year financial forecast provided therein and reflect the projected issuance of additional bonds. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

(b) Water Revenues include revenues from water sales, exchanges, and wheeling. During the fiscal years ended June 30, 2018 through June 30, 2021, annual water transactions with member agencies (in acre-feet) were 1.55 million, 1.37 million, 1.37 million, and 1.57 million, respectively. See the table entitled "Summary of Water Transactions and Revenues" under "METROPOLITAN REVENUES–Water Revenues" in this Appendix A. The water transactions projections (in acre-feet) are 1.65 million acre-feet for fiscal year 2021-22, 1.59 million acre-feet for fiscal year 2022-23, 1.54 million acre-feet for fiscal years 2023-24 and 2024-25, 1.51 million acre-feet for fiscal year 2025-26, and 1.53 million acre-feet for fiscal year 2026-27. Projections reflect adopted overall rate and charge increase of 4.0 percent effective on January 1, 2022 and 5.0 percent for each of the calendar years 2023 and 2024. Rates and charges are projected to increase 7.0 percent for calendar year 2025, and 6.0 percent for each of the calendar years 2026 and 2027, subject to adoption by Metropolitan's Board. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

(c) Includes revenues from water standby, readiness-to-serve, and capacity charges. The term Operating Revenues excludes *ad valorem* taxes. See "METROPOLITAN REVENUES–Other Charges" in this Appendix A.

(d) Water Transfer Costs and RRWP planning costs (described under "REGIONAL WATER RESOURCES–Local Water Supplies – *Recycled Water-Metropolitan Regional Recycled Water Program*" in this Appendix A) are included in operation and maintenance expenses for purposes of calculating the debt service coverage on all Obligations. For fiscal year 2021-22, operation and maintenance expenses also include $24.0 million in payments to SDCWA in connection with the litigation challenging Metropolitan's rates (of the total $50.5 million paid, with the balance paid from the Exchange Agreement Set-aside Fund). See METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A.

(e) Includes on- and off-aqueduct power and operation, maintenance, power and replacement costs payable under the State Water Contract and Delta Conveyance planning costs. See "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A. See also "METROPOLITAN'S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – *Bay-Delta Planning Activities"* and "– *Delta Conveyance*" in this Appendix A.

(f) May include lease and rental net proceeds, net proceeds from sale of surplus property, reimbursements, and historically, federal interest subsidy payments for Build America Bonds.

(g) Includes CRA power sales.

(h) Does not include interest applicable to Bond Construction Funds, the Excess Earnings Funds, other trust funds and the Deferred Compensation Trust Fund. Includes net gain or loss on investments.

(i) Adjusted Net Operating Revenues is the sum of all available revenues that the revenue bond resolutions specify may be considered by Metropolitan in setting rates and issuing additional Senior Revenue Bonds and Senior Parity Obligations and Subordinate Revenue Bonds and Subordinate Parity Obligations.

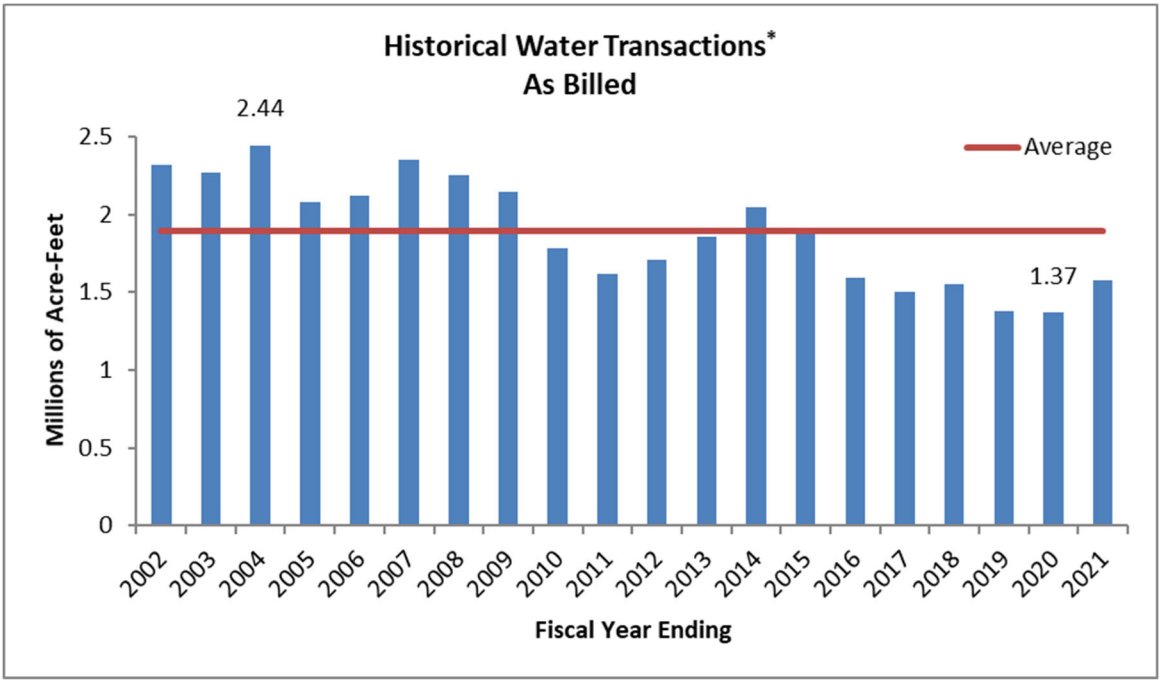
(j) Includes debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds, Subordinate Parity Obligations, and additional Revenue Bonds (projected). Assumes issuance of approximately $303.9 million in additional Revenue Bonds in fiscal year 2022-23, approximately $160 million in fiscal year 2023-24, approximately $200 million in fiscal year 2024-25, approximately $210 million in fiscal year 2025-26 and approximately $300 million in fiscal year 2026-27. Fiscal year 2018-19 debt service is reduced by $15.3 million for debt service prepaid through bond refunding transactions in June 2018, rather than on July 1, 2018. Fiscal year 2018-19 debt service increased by $28.5 million for debt service prepaid in June 2019, rather than on July 1, 2019 and fiscal year 2019-20 debt service is therefore reduced by $28.5 million. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

(k) Adjusted Net Operating Revenues, divided by the sum of debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds and Subordinate Parity Obligations and additional Revenue Bonds (projected). See "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations" and "–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

(l) Adjusted Net Operating Revenues, divided by the sum of State Water Contract capital costs paid from current year operations and debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds and Subordinate Parity Obligations, and additional Revenue Bonds (projected).

Water Transactions Projections

The water transactions with member agencies in the table above for fiscal year 2020-21 were 1.57 million acre-feet. The water transactions forecast for fiscal year 2021-22 is 1.65 million acre-feet (reflecting the revised projections based on results through March 2022), and 1.59 million acre-feet for fiscal year 2022-23, 1.54 million acre-feet for fiscal years 2023-24 and 2024-25, 1.51 million acre-feet for fiscal year 2025-26, and 1.53 million acre-feet for fiscal year 2026-27, consistent with the biennial budget and ten-year financial forecast. For purposes of comparison, Metropolitan's highest level of water transactions during the past 20 fiscal years was approximately 2.44 million acre-feet in fiscal year 2003-04 and the lowest was 1.37 million acre-feet in fiscal year 2019-20. The chart below shows the volume of water transactions with member agencies over the last 20 fiscal years.



*Water transactions include sales, exchanges, and wheeling with member agencies.

Water Revenues

Metropolitan relies on revenues from water transactions for about 80 percent of its total revenues. In adopting the budget and rates and charges for each fiscal year, Metropolitan's Board reviews the anticipated revenue requirements and projected water transactions to determine the rates necessary to produce the required revenues to be derived from water transactions during the fiscal year. Metropolitan sets rates and charges estimated to provide operating revenues sufficient, with other sources of funds, to provide for payment of its expenses. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Metropolitan's Board has adopted annual increases in water rates each year beginning with the rates effective January 1, 2004. See "METROPOLITAN REVENUES–Rate Structure" and "–Classes of Water Service" in this Appendix A. On April 14, 2020, the Board adopted average increases in rate and charges of 3.0 percent, to become effective on January 1, 2021, and 4.0 percent, to become effective on January 1, 2022. On April 12, 2022, the Board adopted average increases in rates and charges of 5.0 percent, to become effective on January 1, 2023 and January 1, 2024. Rates and charges are projected to increase 7.0 percent for calendar

year 2025, and 6.0 percent for each of calendar years 2026 and 2027. Actual rates and charges to be effective in 2025 and thereafter are subject to adoption by Metropolitan's Board.

Projected Fiscal Year 2021-22 Financial Results

Projections for fiscal year 2021-22, in the table above (on a modified accrual basis), are revised from the projections adopted in the fiscal year 2020-21 and 2021-22 biennial budget and based on results through March 2022. Operation and maintenance expenses in fiscal year 2021-22 are projected to be $1,237 million, which represents approximately 68.3 percent of total costs. These expenses include the costs of labor, electrical power, materials and supplies of both Metropolitan and its contractual share of the State Water Project. For fiscal year 2021-22, operation and maintenance expenses also include $24.0 million in payments to SDCWA in connection with the litigation challenging Metropolitan's rates (of the total $50.5 million paid, with the balance paid from the Exchange Agreement Set-aside Fund). See METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A. Metropolitan's operation and maintenance expenses are projected to be $25 million under budget in fiscal year 2021-22. Comparatively, operations and maintenance expenditures in fiscal year 2020-21 were $1,029 million, which represents approximately 65.1 percent of total costs. Overall, projected expenses for the twelve months ending June 30, 2022 are $1.8 billion, which is $35 million, or 1.9 percent, less than budgeted expenses.

Fiscal year 2021-22 revenue bond debt service coverage (on a modified accrual basis) is projected to be 1.81x and fixed charge coverage to be 1.81x. Fiscal year 2021-22 capital expenditures, currently estimated at $201.5 million, will be partially funded by the proceeds of bonds issued for Fiscal Year 2021-22 for such purpose and the remainder from pay-as-you-go funding. Metropolitan's unrestricted reserves are projected to be approximately $701 million on a modified accrual basis at June 30, 2022. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. This amount does not include funds held in the Exchange Agreement Set-Aside Fund.

Financial projections for fiscal years 2022-23 through 2026-27 are reflected in the fiscal year 2022-23 and 2023-24 biennial budget and ten-year financial forecast provided therein. The fiscal year 2022-23 and 2023-24 biennial budget and rates set the stage for predictable and reasonable rate increases over the ten-year planning period, with Board adopted overall rate increases of 5.0 percent for each of calendar years 2023 and 2024. The fiscal year 2022-23 and 2023-24 biennial budget and ten-year financial forecast includes rate increases of 7.0 percent for calendar year 2025, and 6.0 percent for calendar years 2026 and 2027. Actual rates and charges to be effective in 2025 and thereafter are subject to adoption by Metropolitan's Board as part of the biennial budget process, at which point the ten-year forecast will be updated as well. Increases in rates and charges reflect the impact of reduced water transactions projections, increasing operations and maintenance costs, and increasing State Water Project costs, when compared to prior fiscal years.

Metropolitan's financial results during the fiscal years 2021-22 through 2026-27 may be impacted by current and subsequent developments relating to the COVID-19 pandemic, the effects of the ongoing drought, as well as other unforeseen events.

See also the "Management's Discussion and Analysis" contained in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2021 AND JUNE 30, 2020 AND BASIC FINANCIAL STATEMENTS FOR THE NINE MONTHS ENDED MARCH 31, 2022 AND 2021 (UNAUDITED)."

Appendix G

Water Supply Assessment Checklist

Water Supply Assessment Checklist

Water Code Section	Water Supply Assessment Content	Page # in WSA
10910(c)(2)	Incorporate data from UWMP.	4-21
10910(d)(1)	Identification of existing water supply entitlements, water rights, or water service contracts relevant to identified water supply for proposed project, and description of quantity of water received in prior years.	11-20
10910(d)(2)(A)	Written contracts or other proof of entitlement to an identified water supply.	19-20
10910(d)(2)(B)	Capital outlay program for financing the delivery of a water supply that has been adopted.	20
10910(d)(2)(C)	Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.	11-17
10910(d)(2)(D)	Any necessary regulatory approval to deliver/convey the water supply.	11-17
10910(f)(1)	Review of any information contained in the UWMP relevant to the identified water supply for the proposed project.	4-21
10910(f)(2)	Description of any groundwater basin(s) from which proposed project will be supplied. For basins with adjudicated groundwater pumping rights, include a copy of the order/decree adopted by the court or the board and a description of quantity of groundwater public water system has the legal right to pump under the order/decree.	12-14 Appendix D
10910(f)(3)	Description and analysis of amount and location of groundwater pumped for the past 5 years from any groundwater basin from which the proposed project will be supplied.	12-14
10910(f)(4)	Description and analysis of amount and location of groundwater that is projected to be pumped from any basin to provided water to the proposed project.	12-14
10910(f)(5)	Analysis of sufficiency of groundwater from the basins from which the proposed project will be supplied to meet projected water demand of the proposed project.	12-14