

WORKSHOP MEETING OF THE
BOARD OF DIRECTORS WITH MET DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Fountain Valley, California
August 5, 2020, 8:30 a.m.

Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:

Computer Audio: You can join the Zoom meeting by clicking on the following link:
<https://zoom.us/j/8828665300>

Telephone Audio:	(669) 900 9128 fees may apply
	(877) 853 5247 Toll-free
Webinar ID:	882 866 5300#

AGENDA

ROLL CALL

PUBLIC PARTICIPATION/COMMENTS

At this time members of the public will be given an opportunity to address the Board concerning items within the subject matter jurisdiction of the Board. Members of the public may also address the Board about a particular Agenda item at the time it is considered by the Board and before action is taken.

The Board requests, but does not require, that members of the public who want to address the Board complete a voluntary "Request to be Heard" form available from the Board Secretary prior to the meeting.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Determine need and take action to agendize item(s), which arose subsequent to the posting of the Agenda. (ROLL CALL VOTE: Adoption of this recommendation requires a two-thirds vote of the Board members present or, if less than two-thirds of the Board members are present, a unanimous vote.)

ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING

Pursuant to Government Code Section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at <http://www.mwdoc.com>.

NEXT RESOLUTION NO. 2099

PRESENTATION/DISCUSSION ITEMS

1. INPUT OR QUESTIONS ON MET ISSUES FROM THE MEMBER AGENCIES/MET DIRECTOR REPORTS REGARDING MET COMMITTEE PARTICIPATION

Recommendation: Receive input and discuss the information.

**2. METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
INTEGRATED RESOURCES PLAN (IRP) DISCUSSION SERIES PART 7**

Recommendation: Review and discuss the information presented.

**3. METROPOLITAN'S DEMAND MANAGEMENT PROGRAM FINANCIAL AND
POLICY ISSUES**

Recommendation: Review and discuss the information presented.

INFORMATION ITEMS

**4. MWDOC MET DIRECTOR APPOINTMENT – REPORT FROM MET DIRECTOR
SELECTION COMMITTEE**

Recommendation: Review and discuss the information presented.

5. DELTA CONVEYANCE ACTIVITIES

Recommendation: Receive and file the information presented.

6. MET ITEMS CRITICAL TO ORANGE COUNTY (The following items are for
informational purposes only – a write up on each item is included in the packet.
Discussion is not necessary unless requested by a Director)

- a. MET's Water Supply Conditions
- b. MET's Finance and Rate Issues
- c. Colorado River Issues
- d. Bay Delta/State Water Project Issues
- e. MET's Ocean Desalination Policy and Potential Participation in the Doheny
and Huntington Beach Ocean (Poseidon) Desalination Projects
- f. South County Projects

Recommendation: Review and discuss the information presented.

**7. METROPOLITAN (MET) BOARD AND COMMITTEE AGENDA DISCUSSION
ITEMS**

- a. Summary regarding July MET Board Meeting
- b. Review items of significance for MET Board and Committee Agendas

Recommendation: Review and discuss the information presented.

ADJOURNMENT

Note: Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodations should make the request with adequate time before the meeting for the District to provide the requested accommodations.



INFORMATION ITEM

August 5, 2020

TO: Board of Directors

FROM: Robert Hunter, General Manager

Staff Contact: Harvey De La Torre
Melissa Baum-Haley

**SUBJECT: METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
INTEGRATED RESOURCES PLAN (IRP) DISCUSSION SERIES PART 7**

STAFF RECOMMENDATION

Staff recommends the Board of Directors receive and file this information.

REPORT

At the July 28 IRP Special Committee Meeting, Metropolitan staff continued the discussion on the 2020 IRP process, highlighting the work that has been done on the establishment of the drivers of change and the initial construction of the four scenarios. This analysis will utilize both a qualitative and quantitative assessment process to link the drivers to their supply/demand impacts.

The purpose of the driver identification is to recognize outside factors that affect supply and/or demand. The qualitative and quantitative assessment process will examine and organize each of these drivers with respect their supply and demand links, considering:

- Is a drivers are quantifiable
- How it can be quantified
 - Calculate with existing models
 - Approximate where models are not available or not flexible •
- Relates it with geographic location

Answering the above queries for each driver will also identify methods and tools to quantify said links, along with the identification of data and input needs.

Budgeted (Y/N): N/A	Budgeted amount: None	Core <u>X</u>	Choice <u> </u>
Action item amount: N/A	Line item:		
Fiscal Impact (explain if unbudgeted):			

MWDOC has invited Metropolitan staff to further describe this qualitative and quantitative assessment of drivers and provide a few brief examples.

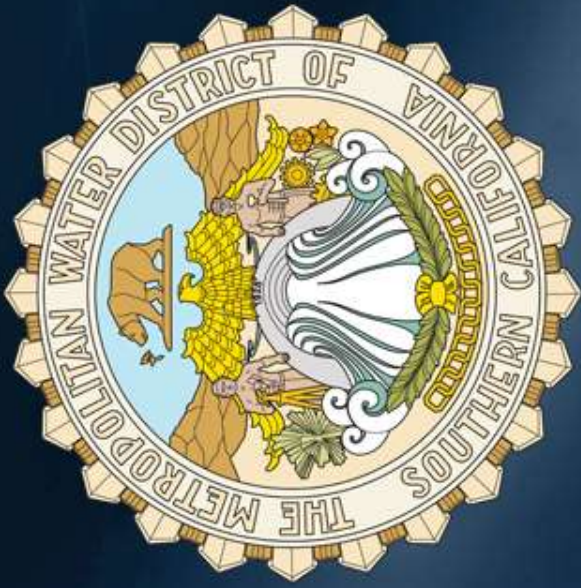
Additionally attached is the 2015 IRP Retrospective which was presented on at the June 23 IRP Special Committee Meeting. The retrospective review provided a data summary of the 2015 IRP forecasts versus actuals over the last five years for total demand on Metropolitan, retail demand, local supplies, imported supplies, and key demographic factors.

It is important to recognize that the 2015 IRP was an update to a long-term plan with reliability targets and a vision set for water reliability in the year 2040. To the extent that short-term developments may have ended up aligning with or departing from projections does not indicate a success or failure of long-term planning.

As the goal of the IRP is reliability, the review also provided an assessment of current reliability, whereby the measure of reliability is the available water supply to satisfy demand on Metropolitan. Based on the retrospective review of the 2015 IRP, the assessment of reliability concluded that Metropolitan is currently reliable with ample supply available to meet demands. The 2020 IRP approach will provide the ability to take a wider range of uncertainties into account, driven by what Metropolitan has seen over the last five years and what is forecasted for the coming 25 years.

It is anticipated this 2020 IRP process will increase the robustness of the 2015 IRP update. **The creation of the four unique scenarios will seek to provide a wider view of the future as each will result in a gap analysis and the identification of a unique resource portfolios.** The 2020 IRP should guide decision-making under a more comprehensive adaptive management strategy using information gleaned from the scenarios.

**Attachments: (1) Metropolitan Presentation on Constructing Scenarios: Qualitative–Quantitative Assessment
(2) 2015 IRP Retrospective: Planning Assumptions vs. Actuals**



Constructing Scenarios: Qualitative – Quantitative Assessment

Integrated Resources Plan Special Committee

Item 6a

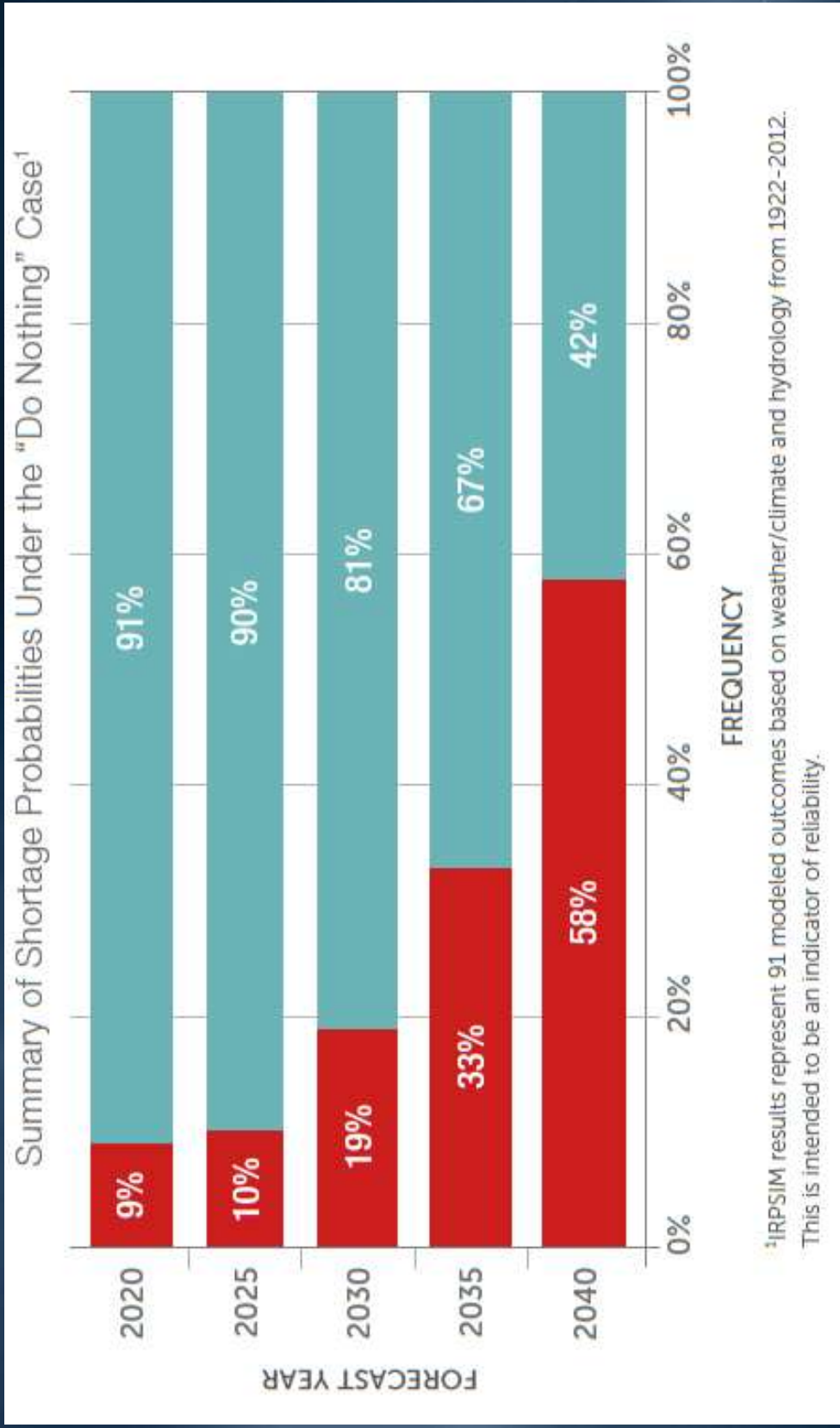
July 28, 2020

Discussion of Single Scenario vs. Multiple Scenario Approach

Analysis from 2015 IRP Update

- 2015 IRP (and previous IRPs) identified resource development needs under fixed assumptions and hydrologic uncertainty
- SCAG/SANDAG demographic forecasts
- SWP and CRA under specified operational and regulatory conditions
- Local Supplies from MA survey
- Hydrology/Climate based on 1922-2012 historical sample (no climate change)
- Resource portfolios identified to cover the gaps

The 2015 IRP Identified a “Gap Analysis” Under a Single Scenario



Population Projections for 2020

Using a Single Forecast has Risk

Metropolitan Service Area



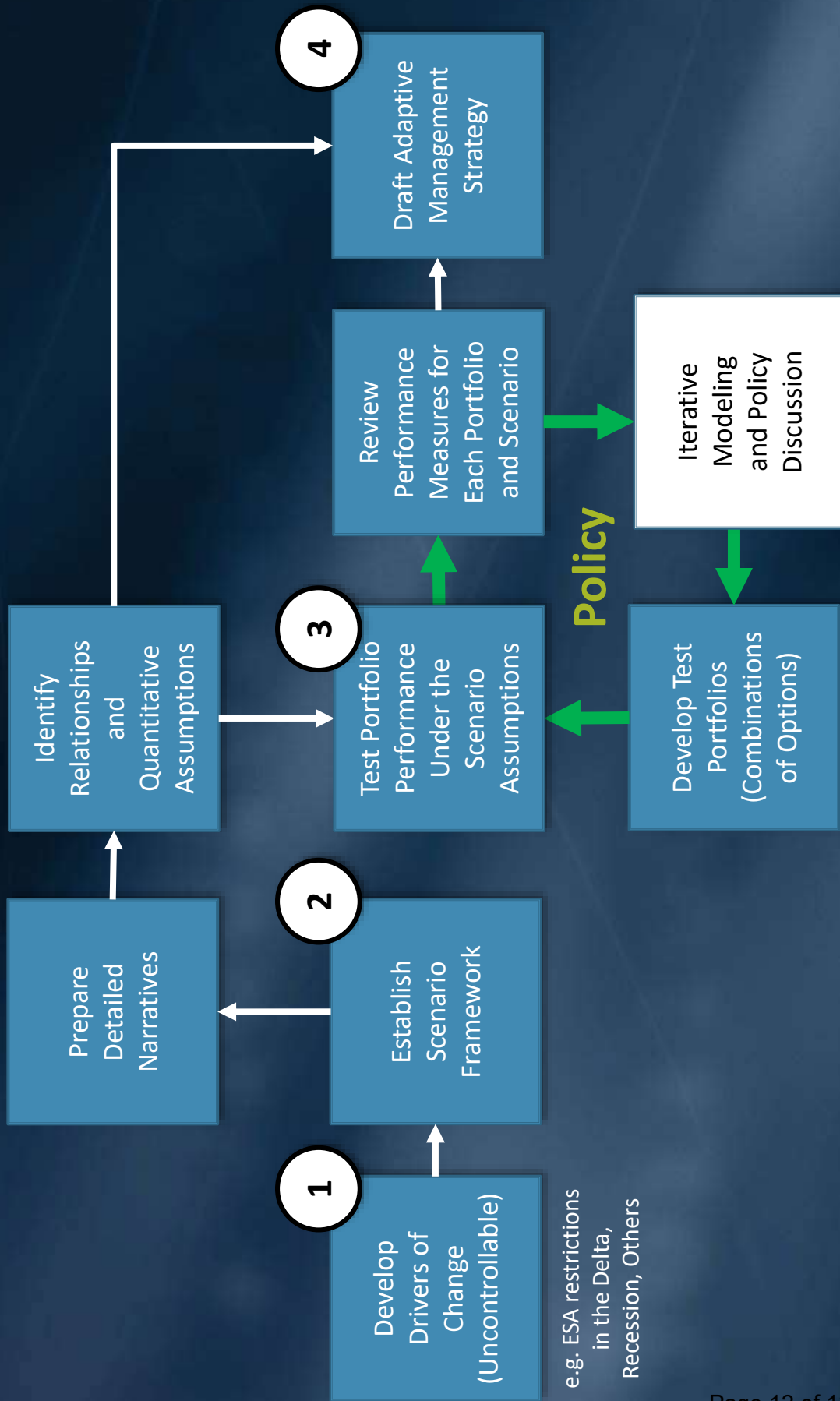
2020 IRP Increases Robustness from the 2015 IRP Update

- Create four scenarios to provide a wider view of the future
 - Conduct four gap analyses
 - Identify resource portfolios that cover the four gap analyses
- Guide decision-making under a more comprehensive adaptive management strategy using information gleaned from the scenarios
- Single scenario approach limits awareness of potential risks and needs

Overview

- Process Recap
- Qualitative – Quantitative Assessment
 - Linking the Drivers to supply/demand impacts
- Collaborative Process

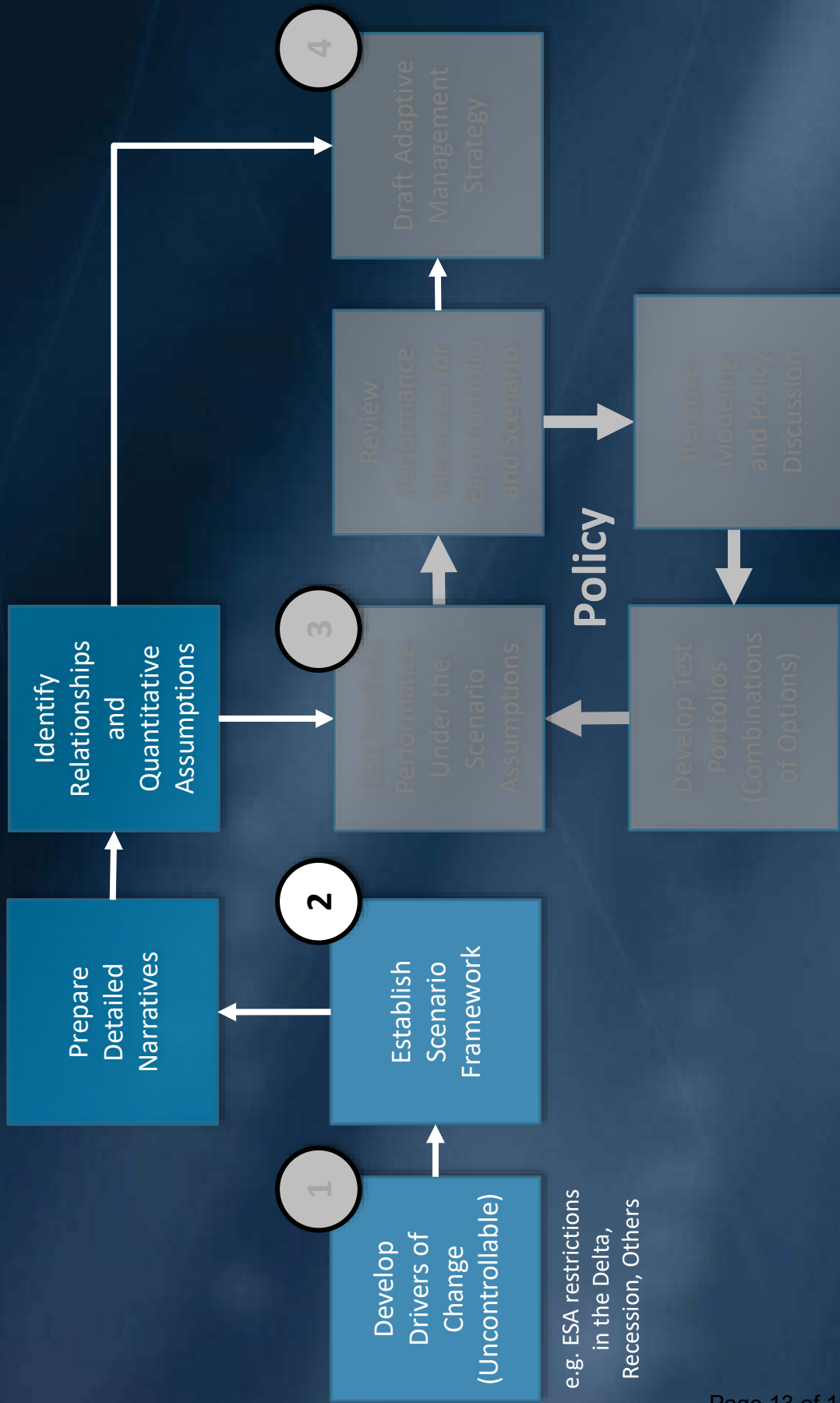
2020 IRP Process Flow Chart



e.g. Delta Conveyance, Regional
Recycled Water, Conservation
Initiatives, Others

= Process Steps

2020 IRP Process Flow Chart



e.g. Delta Conveyance, Regional
Recycled Water, Conservation
Initiatives, Others

= Process Steps

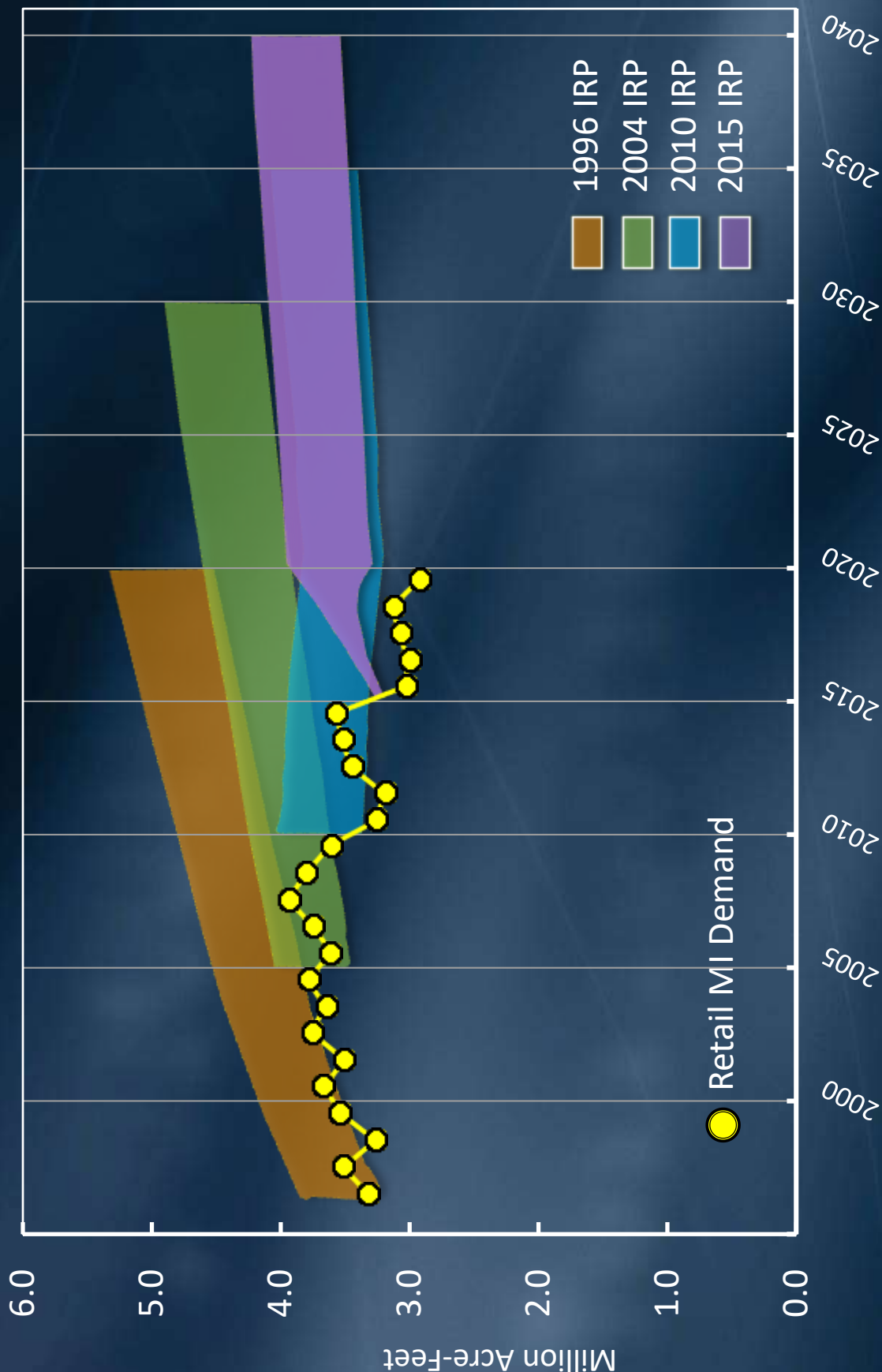
Why Scenario Planning?

Scenario planning allows the IRP to continue Metropolitan's strategy for navigating the challenges facing our water future

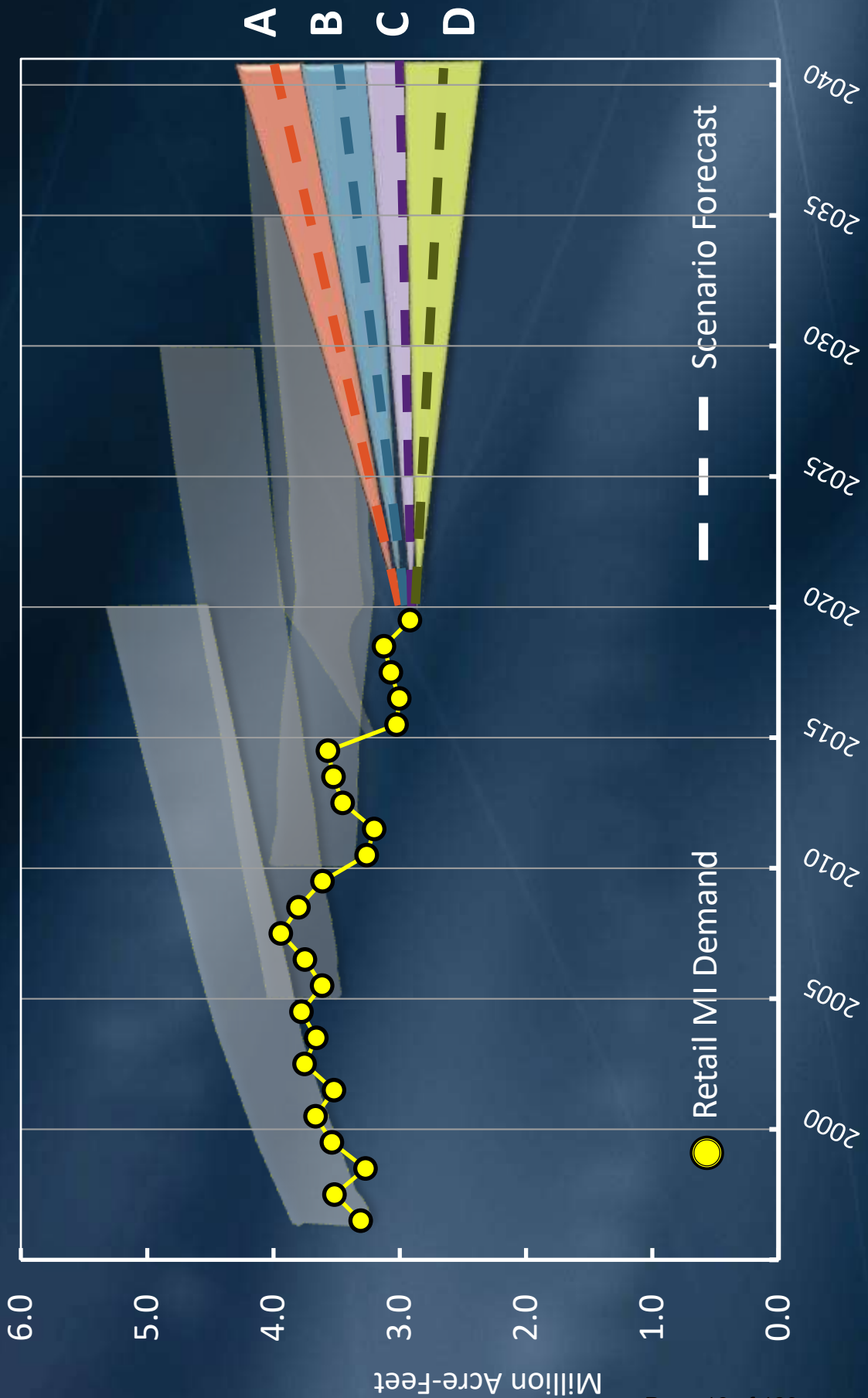
The IRP provides the vision for adaptively managing through the change that is coming

- IRP Goal:
 - Regional Water Reliability
- How do we measure reliability?
 - Evaluating whether or not we have enough water to meet demands

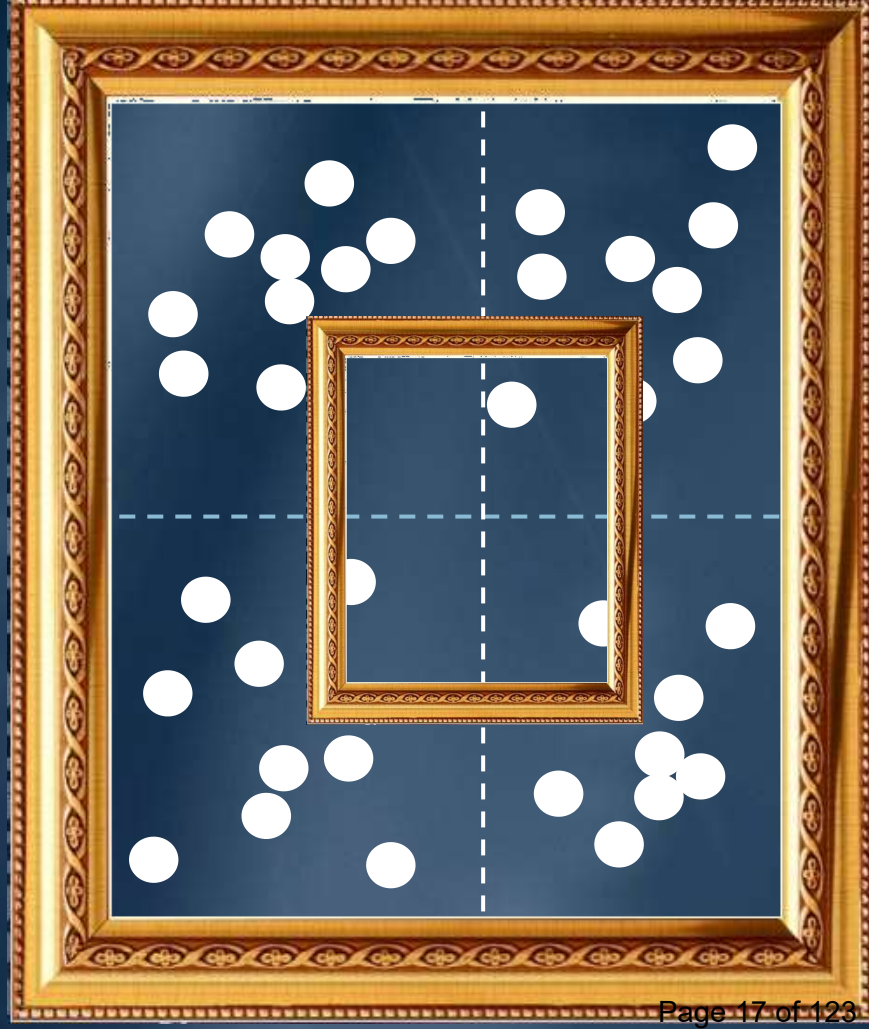
Retail M&I Demand Forecasts Evolved



Retail M&I Demand Forecasts Evolved



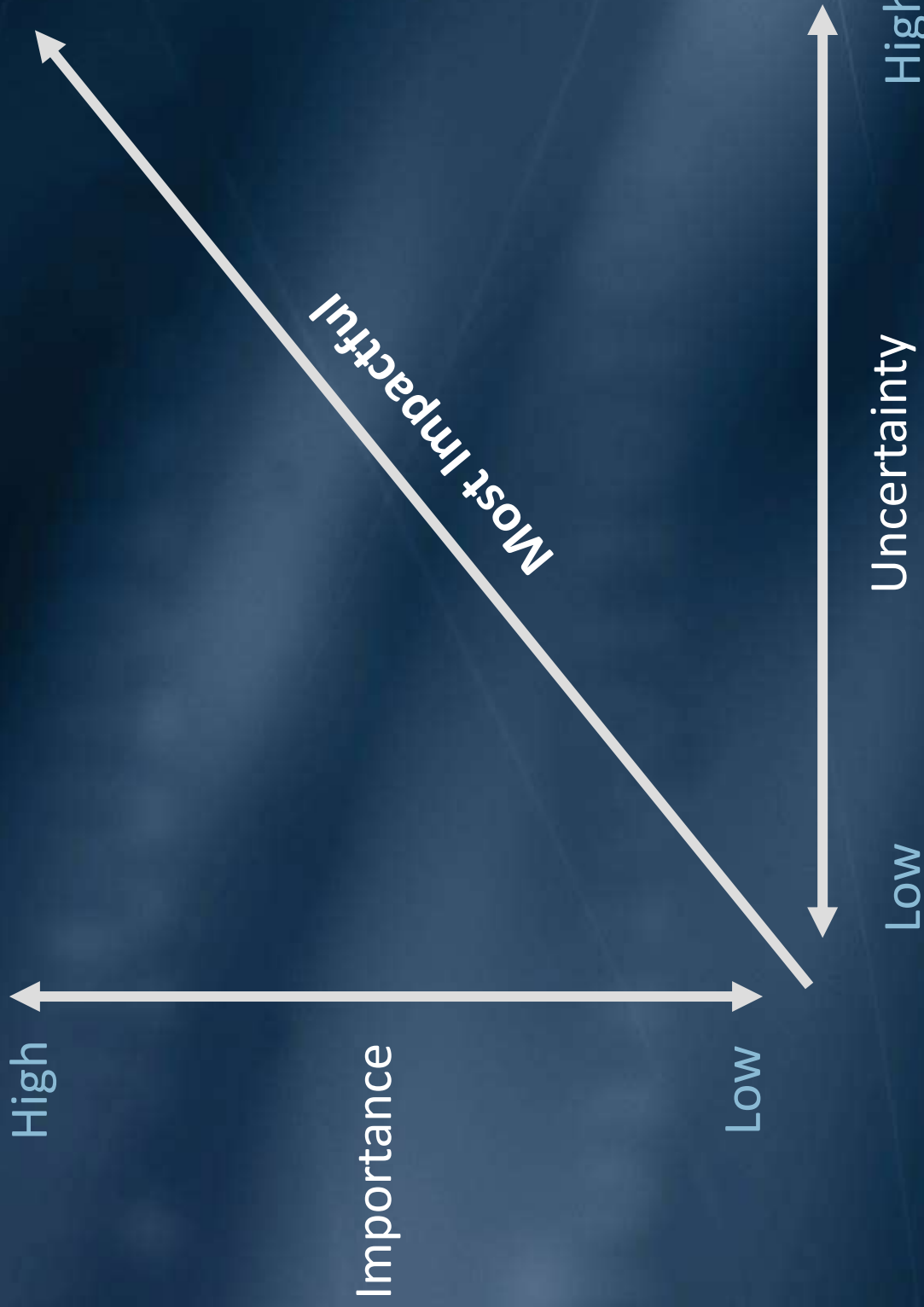
The Scenario Framework Bounds our View of the Future



*A Broad
View Will
Better
Prepare us
for the
Future*

Establishing the Scenario Framework

How Do We Get a Broad View?



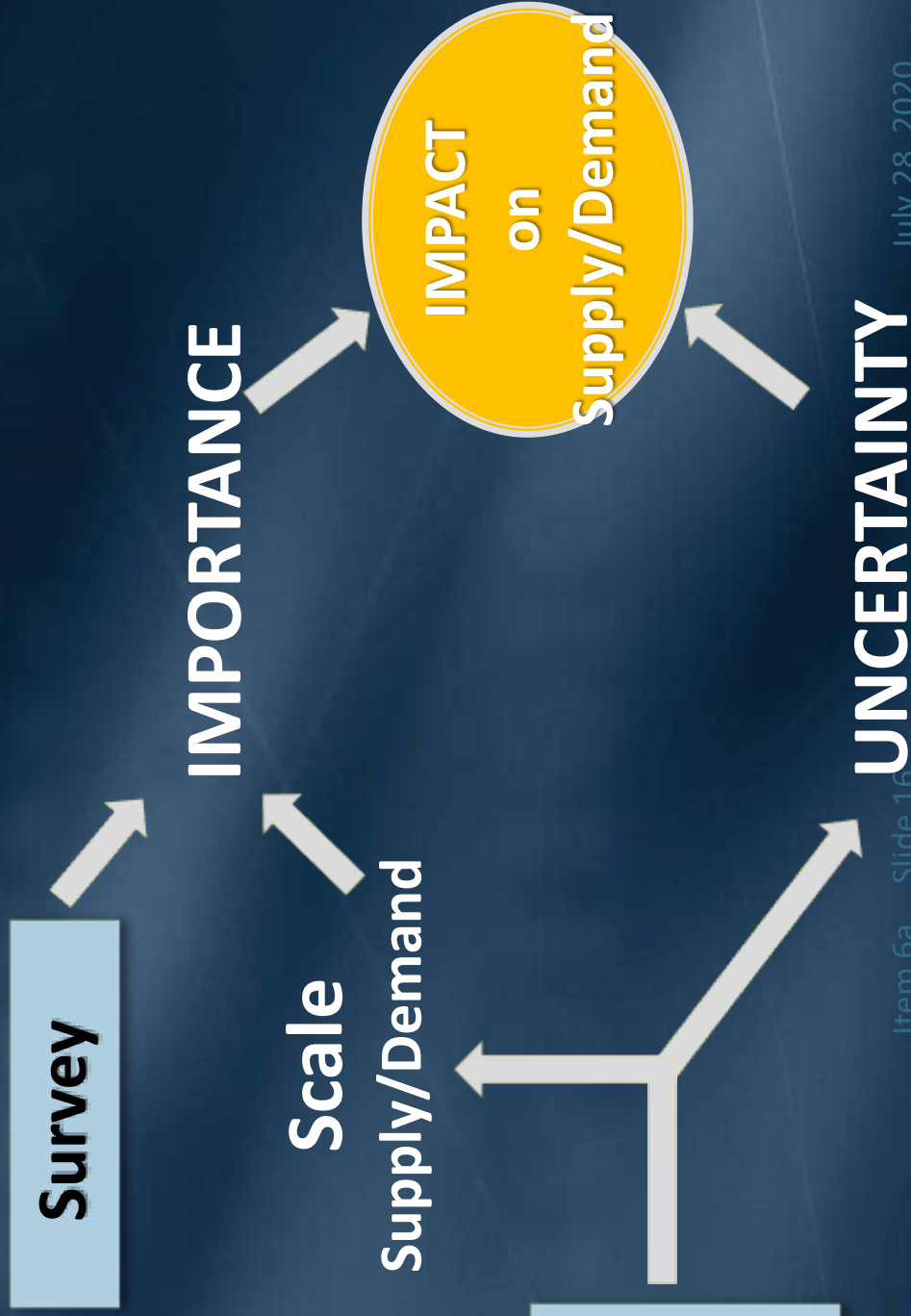
Establishing the Scenario Framework

Identifying the most impactful Drivers



Work Effort to Establish Scenario Framework

Inclusive Process with Member Agency Feedback



CONSTRUCTING SCENARIOS - QUALITATIVE/ QUANTITATIVE ASSESSMENT



Qualitative-Quantitative Assessment Objectives

- Examine and organize the drivers
- Determine supply and demand links to the drivers
- Identify methods and tools to quantify the links to the drivers
- Identify data and input needs
- Open and iterative process

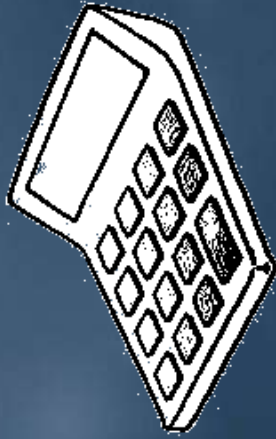
Connecting Drivers to the Analysis:

Supply – Demand Links

- Purpose of drivers is to recognize outside factors that affect supply and/or demand
- IRP analysis makes explicit how these drivers affect supply/demand by assessing

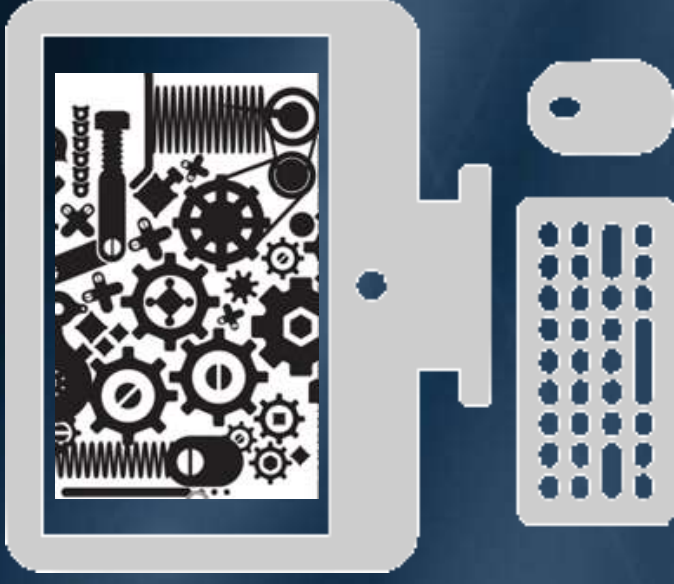
Supply-Demand Links

- Which drivers are quantifiable
- How can we quantify?
 - Calculate with existing models, OR
 - Approximate where models are not available or not flexible
- Relates with geographic location



Quantifying Drivers Using Models

Model Parameters



INPUT

Change to Reflect:

- Economic Outlook
- Demographic Changes
- Climate Outcomes
- Outdoor Water Use

OUTPUT

Outcomes Reflect:

- Demand Impacts
- Supply Impacts

Change to Reflect:

- Behavioral Change
- Response to Price
- Regulatory Outlook
- Operational Requirements
- System Changes

Qualitative - Quantitative Assessment Process

- Initial Screening – Supply–Demand Links

 Does it impact supply?

 Does it impact demand?

For each “Yes”

● How does it affect supply/demand?

● What is the scale of the effect?

● Can we quantify the effect?

*These are the
Supply–Demand Links*



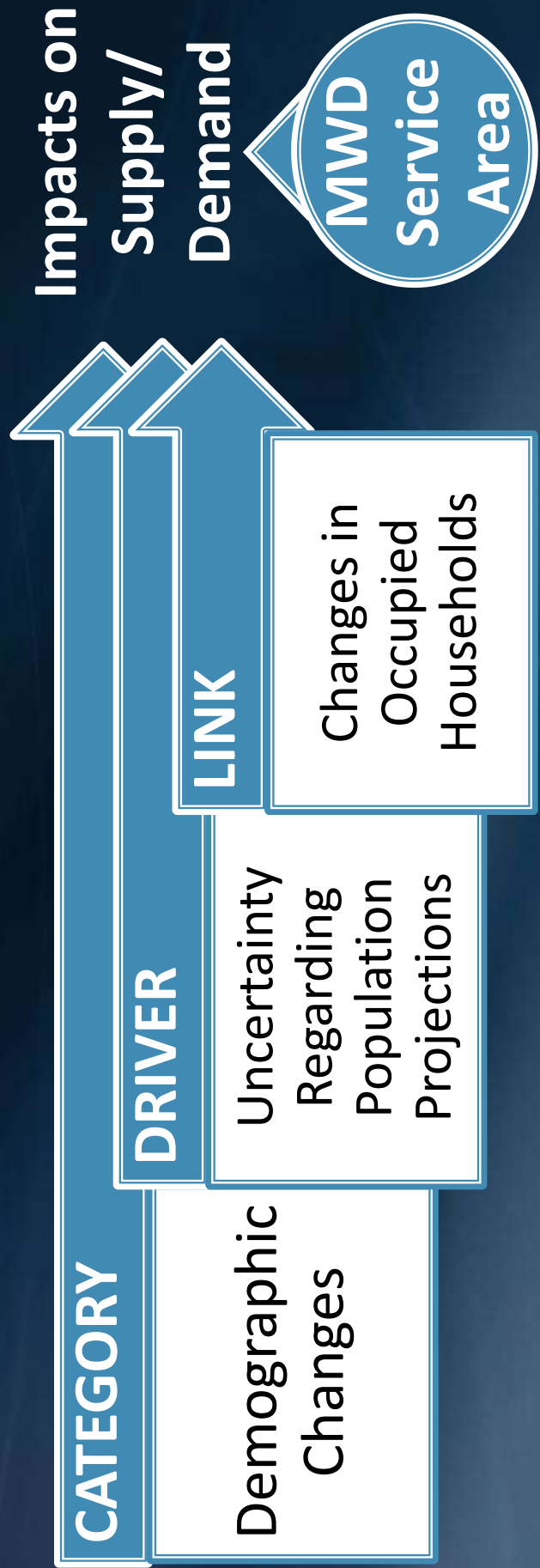
EXAMPLES



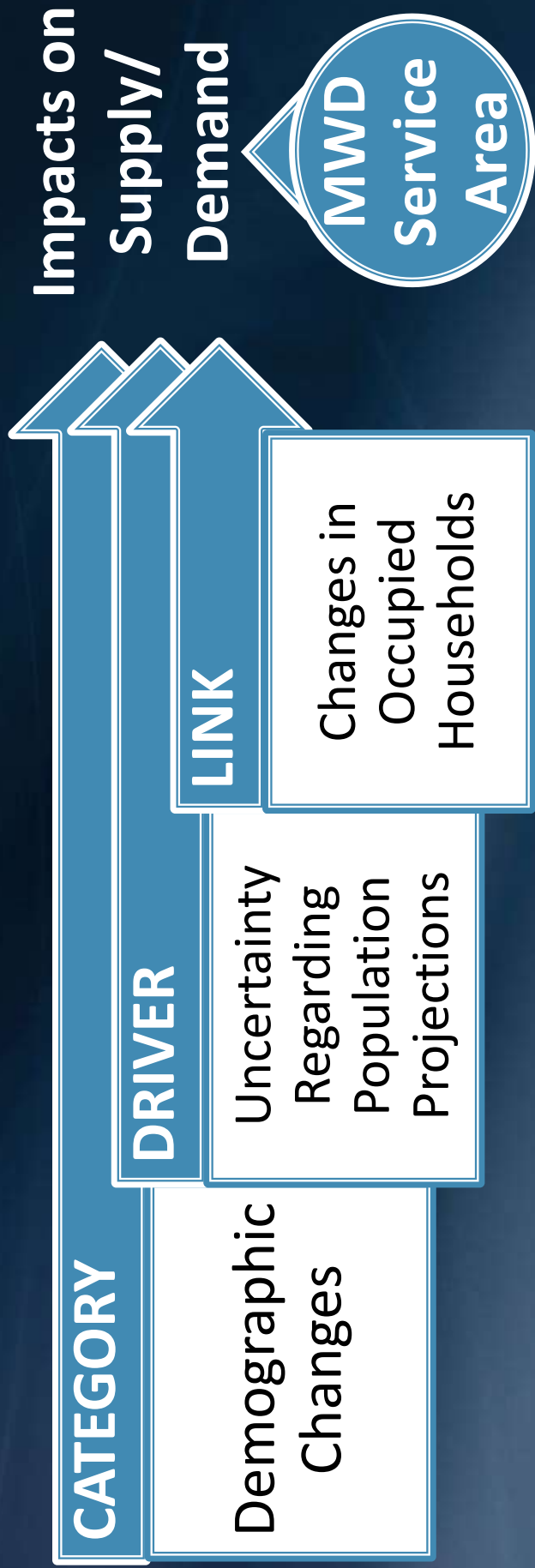
Examples

- Demographic Changes - Uncertainty Regarding Population Projections
- Climate Change – Warming Temperatures
- Legislative and Regulatory – Emerging Regulatory Requirements

Example 1:



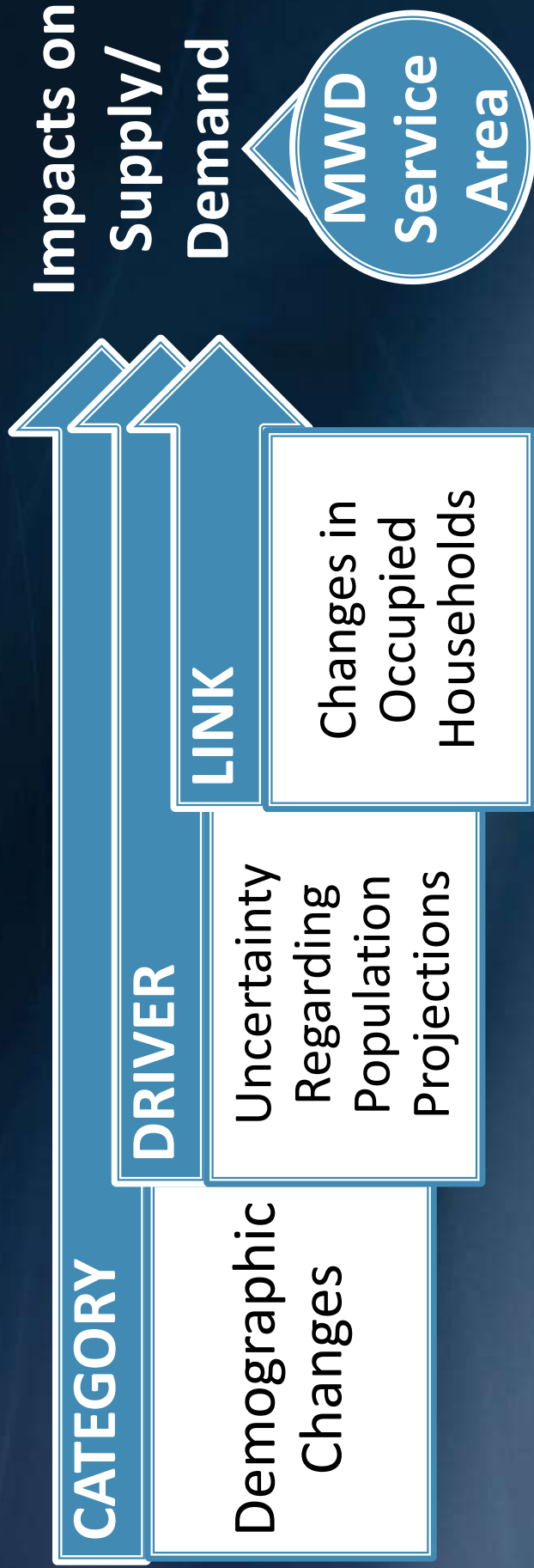
Example 1:



SUPPLY

- Does this driver affect supply? NO
- What is the scale of effect? N/A
- Can you quantify the supply effect? N/A

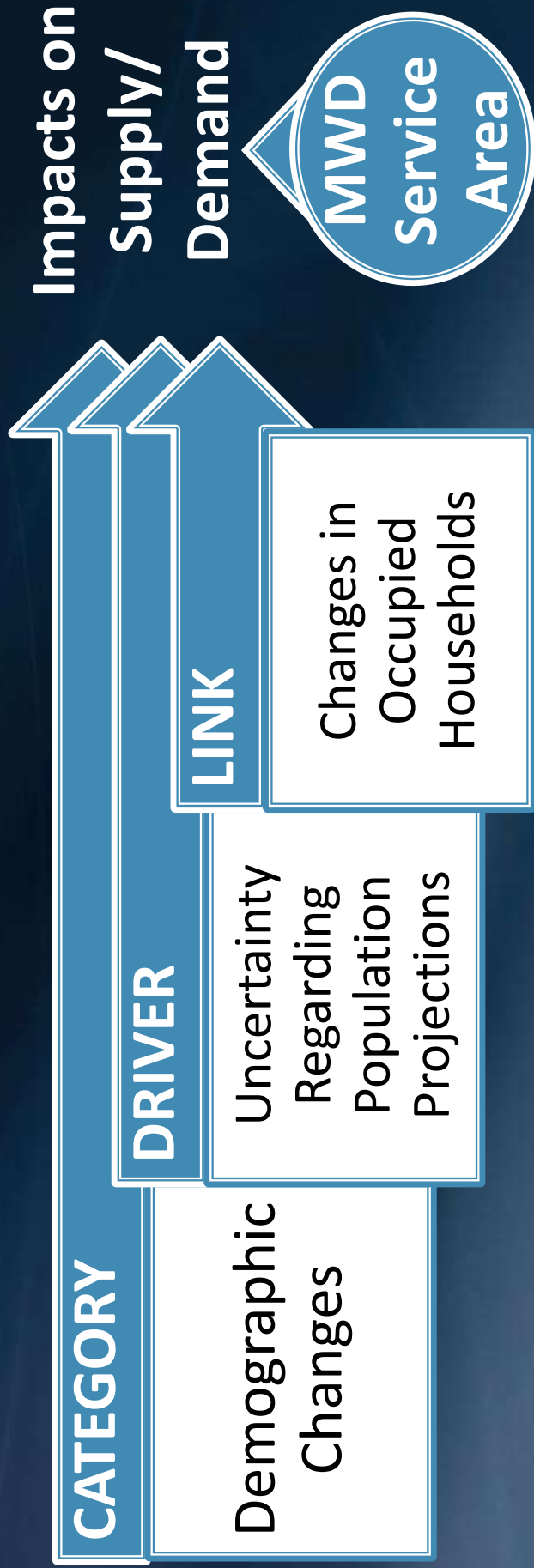
Example 1:



REPLENISHMENT DEMAND

- Does this driver affect demand? NO
- What is the scale of effect? N/A
- Can you quantify the demand effect? N/A

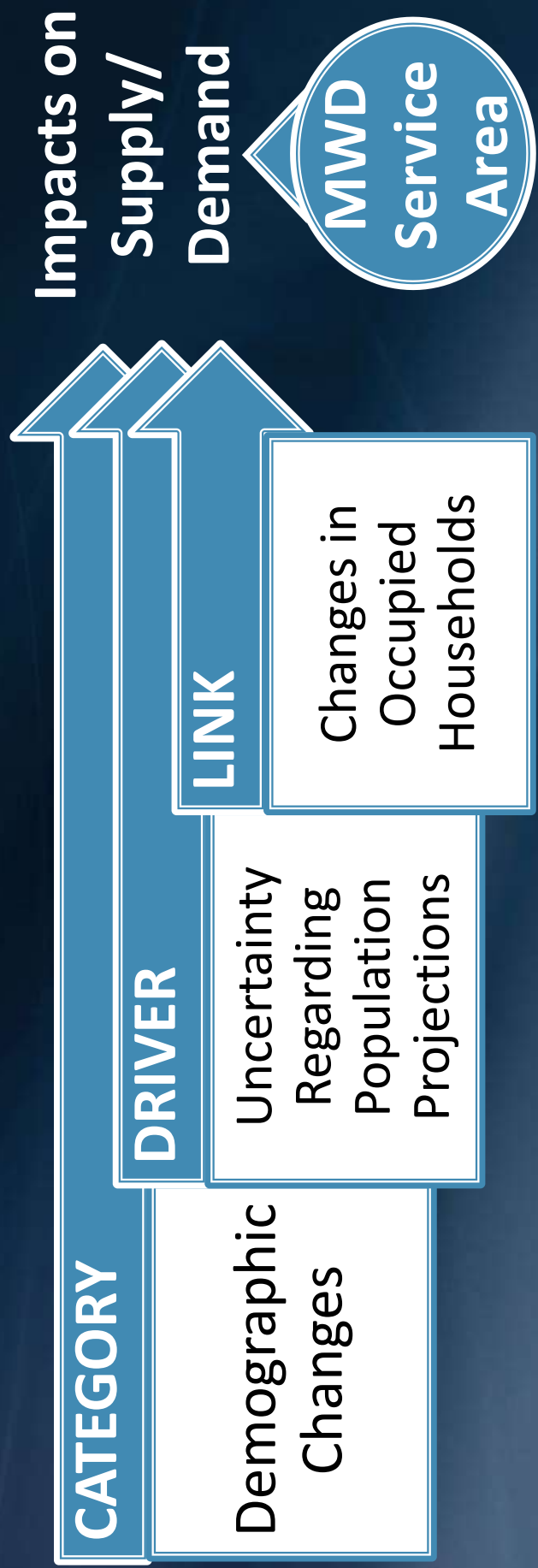
Example 1:



CONSUMPTIVE DEMAND

- Does this driver affect demand? **YES**
- What is the scale of effect? **Large**
- Can you quantify the demand effect? **YES**

Example 1:

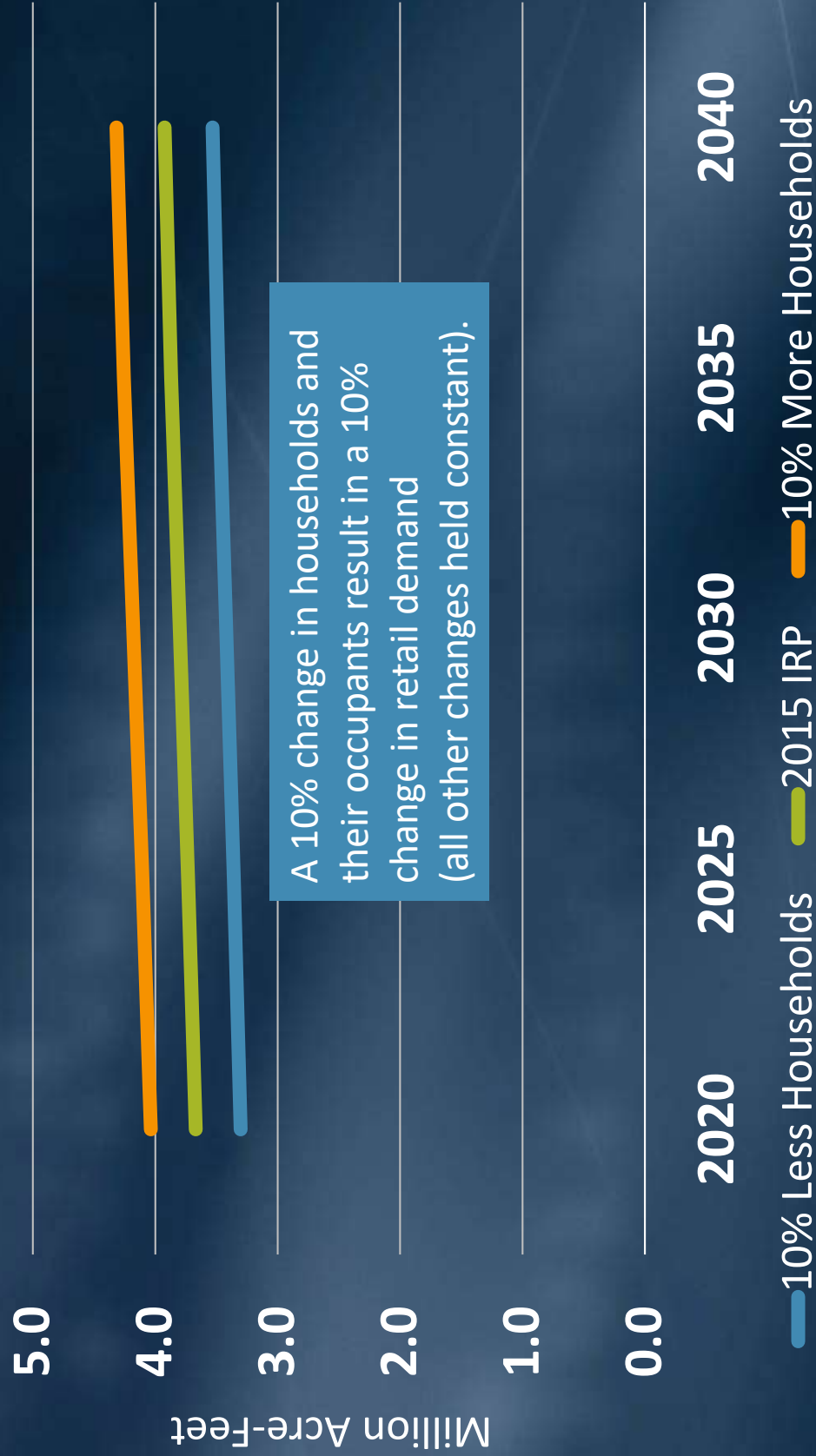


CONSUMPTIVE DEMAND

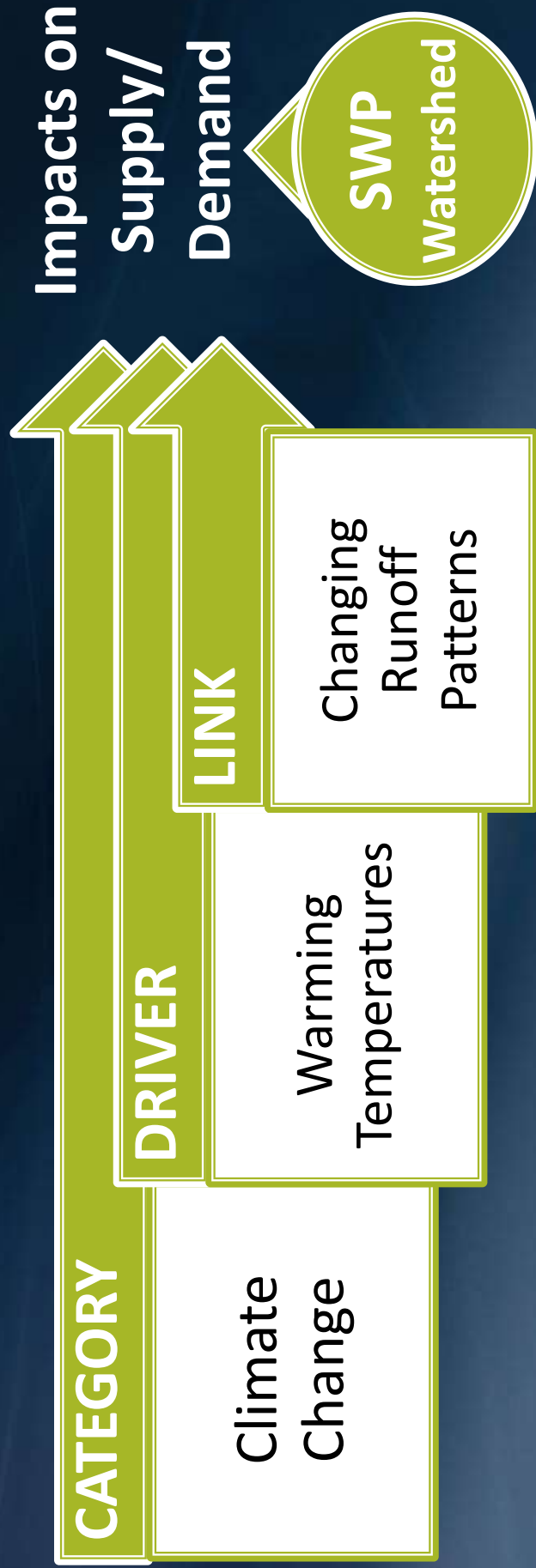
How does it affect demand?	What is the Scale Effect?	How can you quantify the demand effect?
Changes in number of households	Large	Econometric model
Changes in number of people per household	Large	Econometric model

Example 1:

Retail M&I Demand



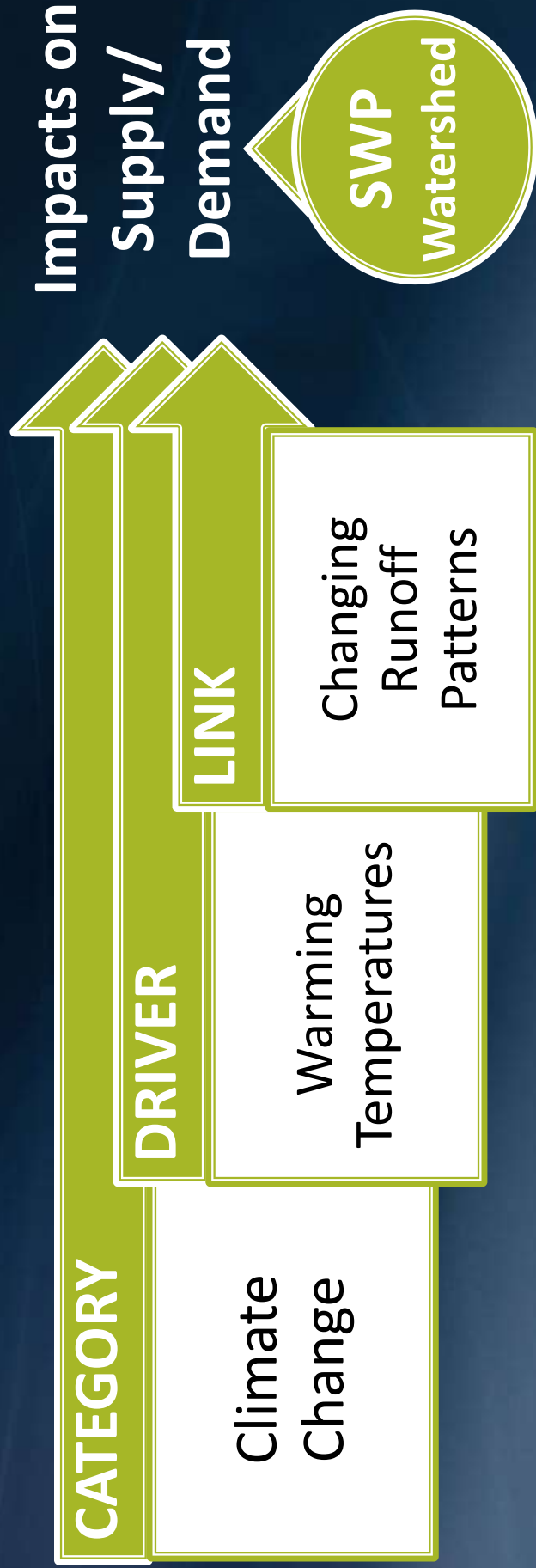
Example 2:



CONSUMPTIVE DEMAND

- Does this driver affect demand? NO
- What is the scale of effect? N/A
- Can you quantify the demand effect? N/A

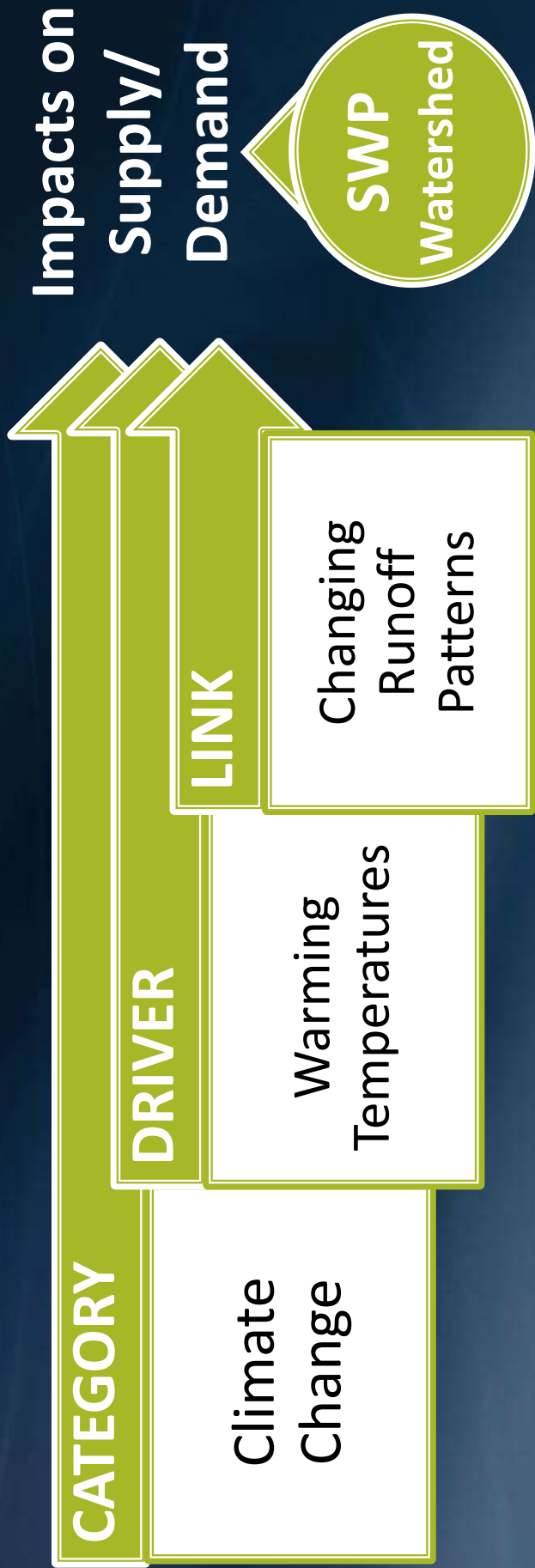
Example 2:



REPLENISHMENT DEMAND

- Does this driver affect demand? NO
- What is the scale of effect? N/A
- Can you quantify the demand effect? N/A

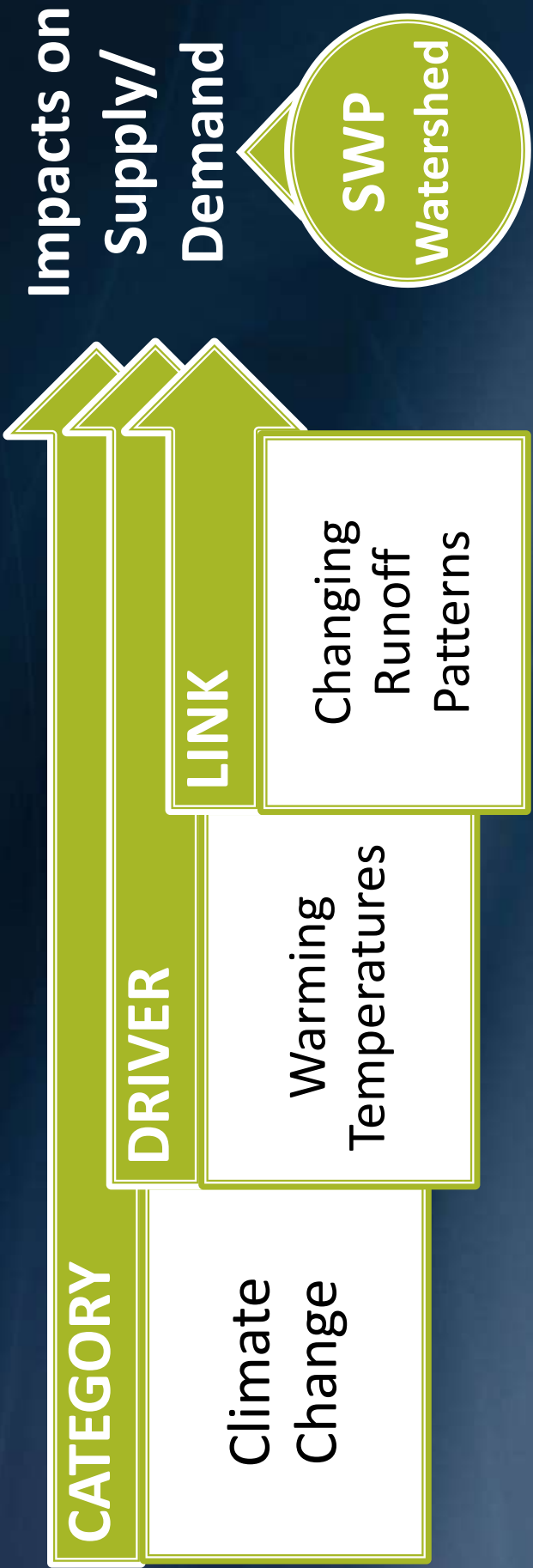
Example 2:



SUPPLY

- Does this driver affect supply? YES
- What is the scale of effect? Large
- Can you quantify the supply effect? YES

Example 2:

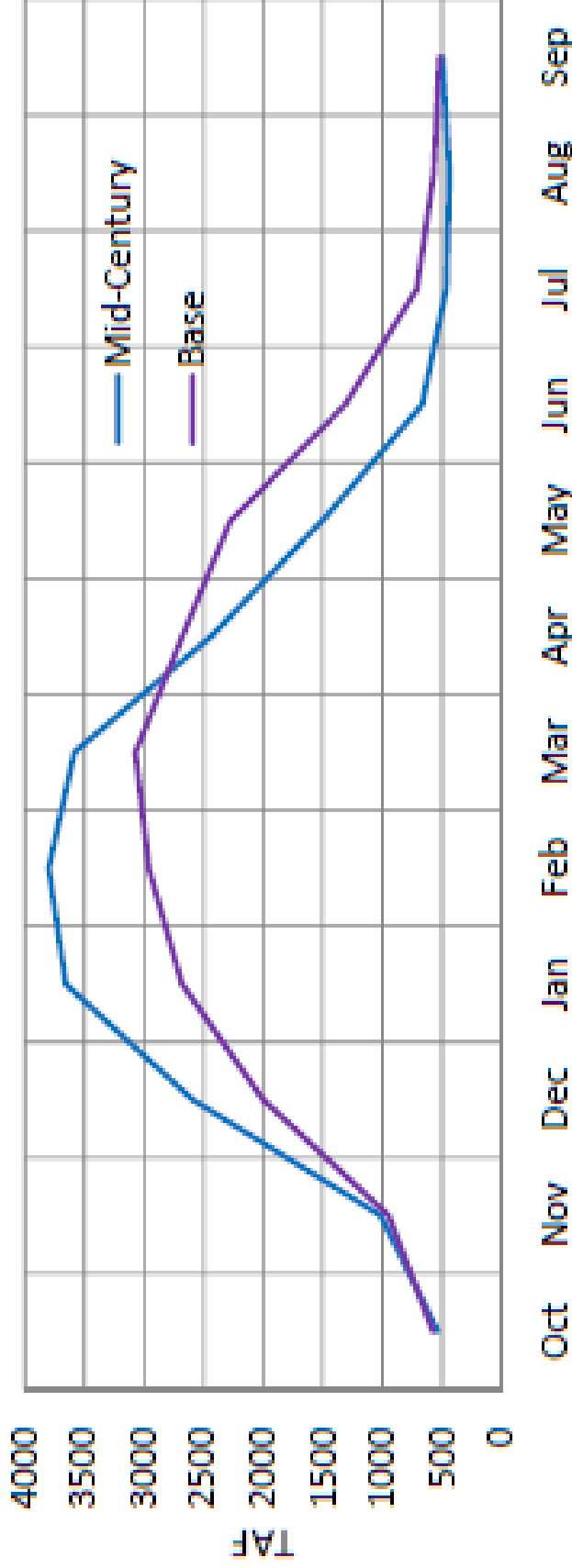


SUPPLY

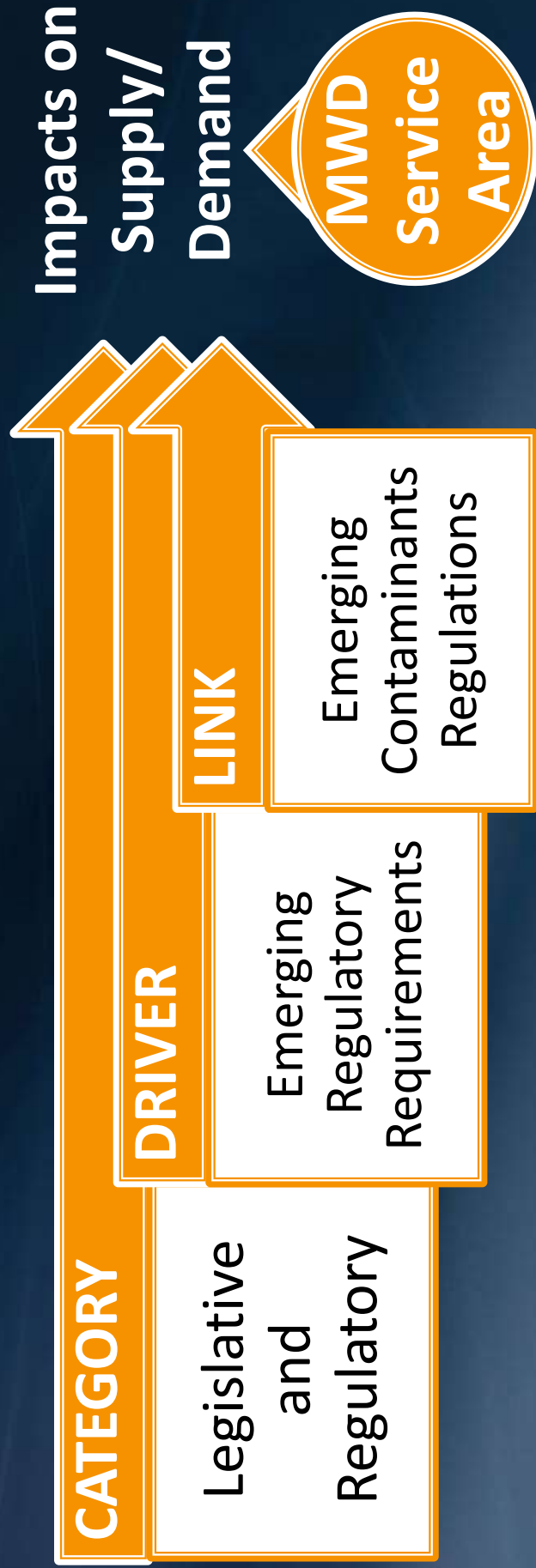
How does it affect supply?	What is the Scale Effect?	How can you quantify the supply effect?
Changes in Delta inflow	Large	CalSIM model
Changes in regulatory needs	Small	CalSIM model

Example 2

Monthly Rim Inflow to Sacramento River Basin



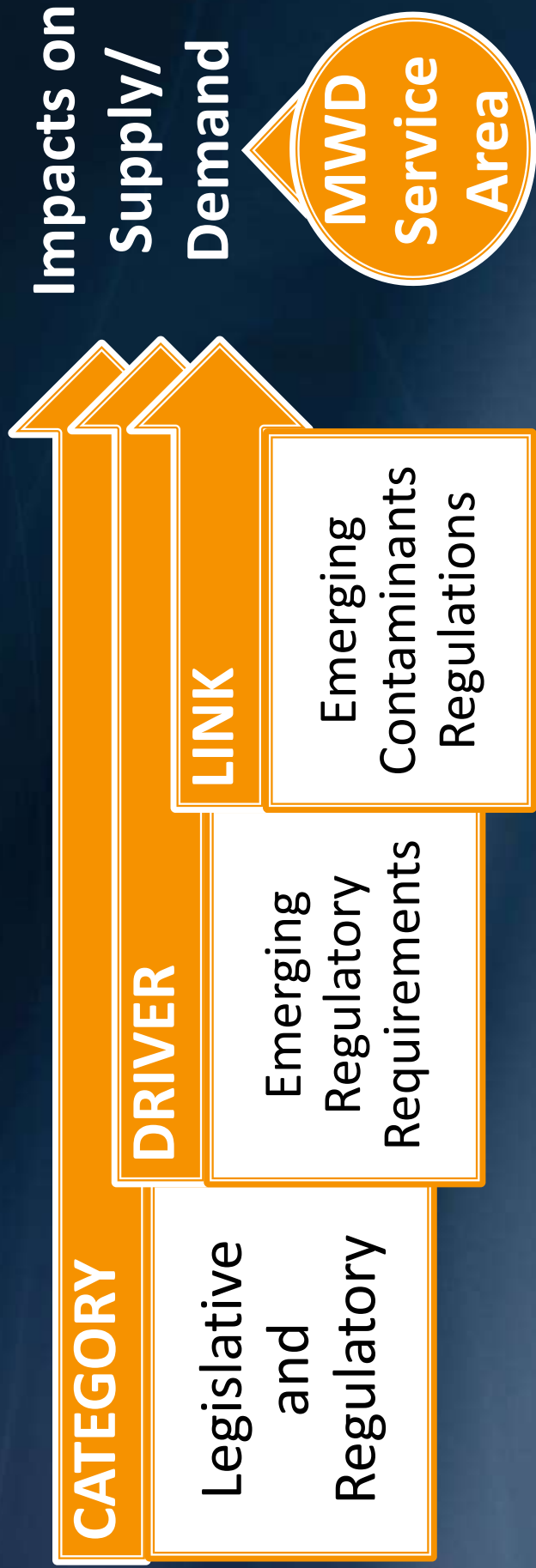
Example 3:



CONSUMPTIVE DEMAND

- Does this driver affect demand? NO
- What is the scale of effect? N/A
- Can you quantify the demand effect? N/A

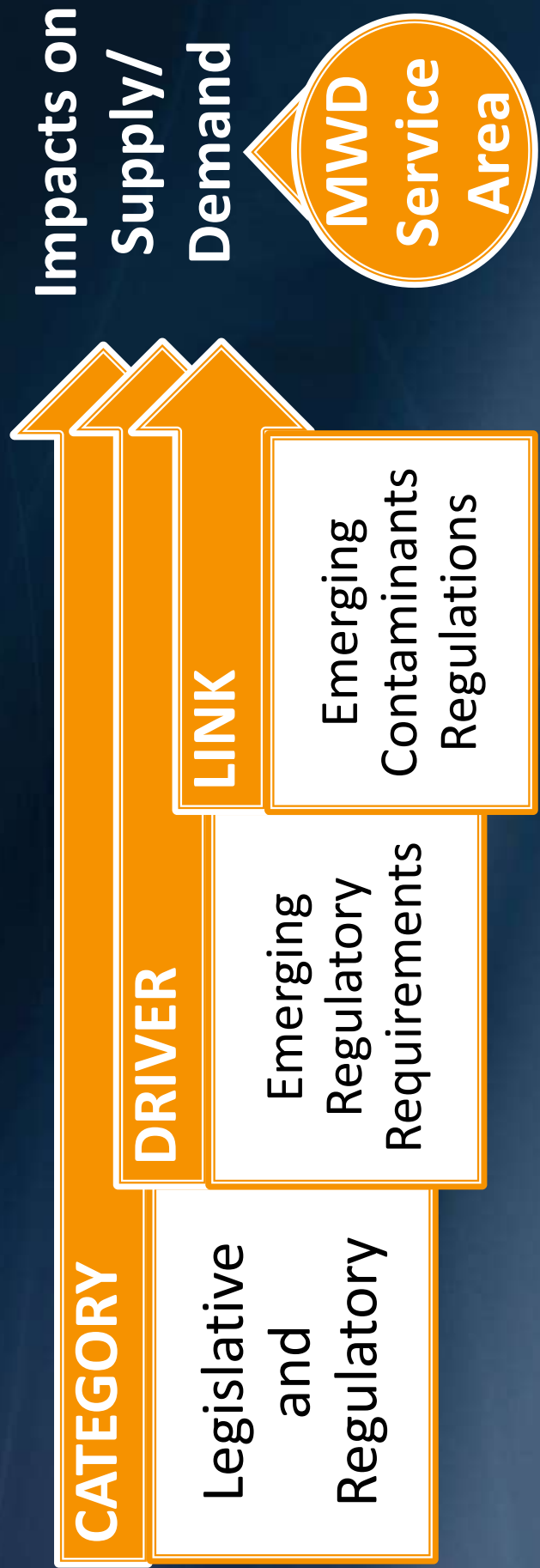
Example 3:



SUPPLY

- Does this driver affect supply? YES
- What is the scale of effect? Large
- Can you quantify the supply effect? YES

Example 3:



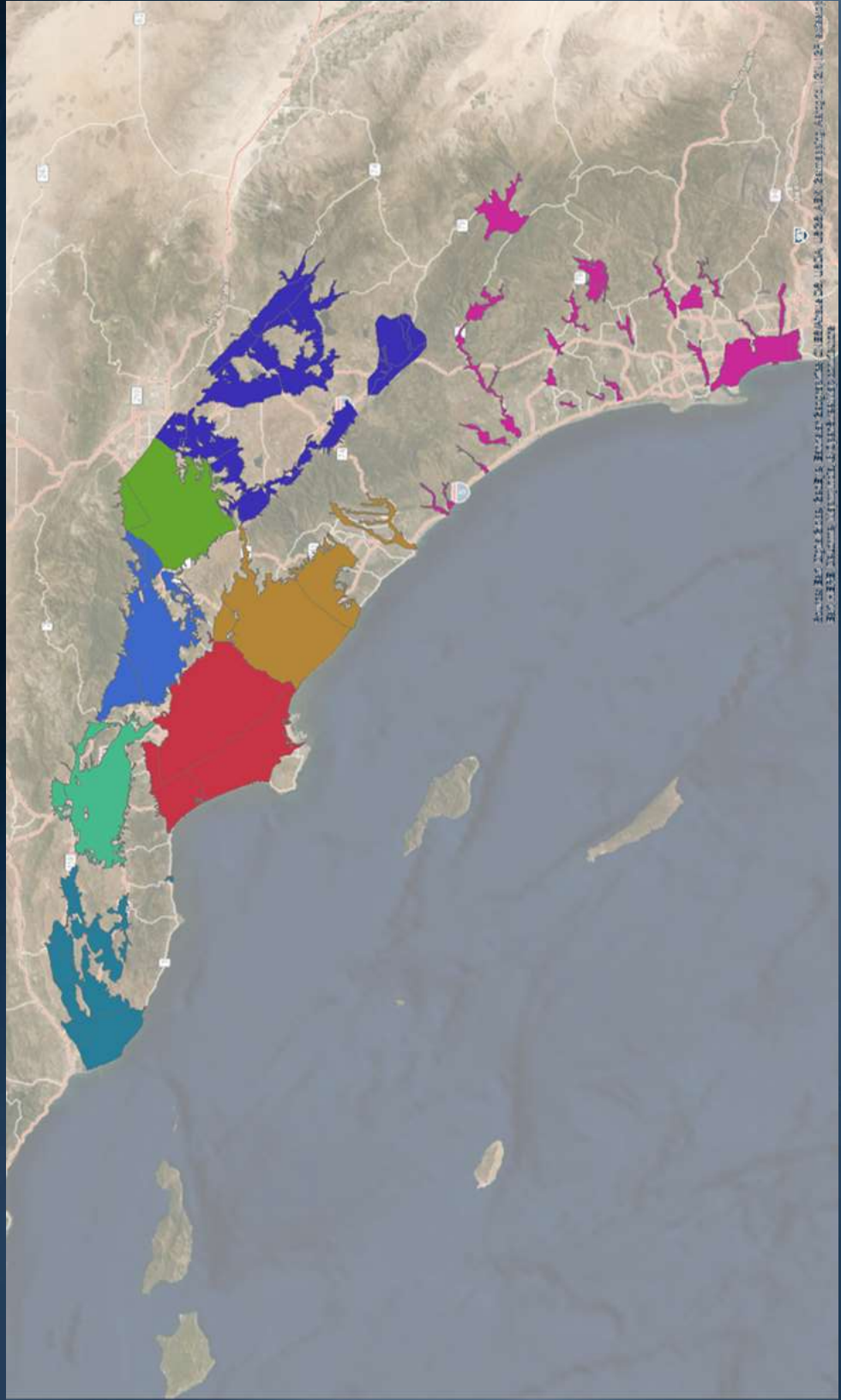
SUPPLY

How does it affect supply?	What is the Scale Effect?	How can you quantify the supply effect?
Loss of groundwater production without additional treatment	Large	Estimate by monitoring data

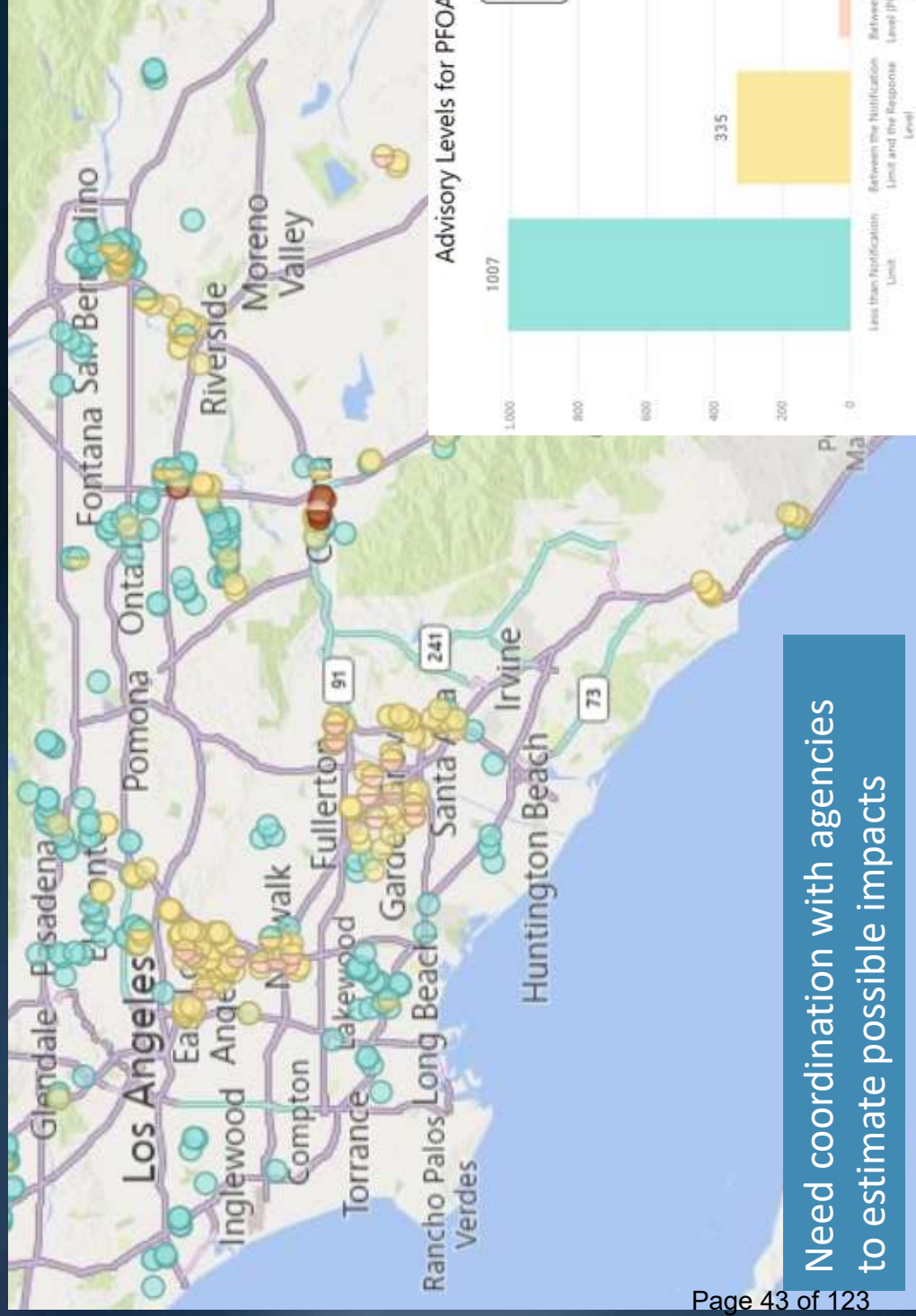
Example 3:

Total Groundwater Production (MWD Service Area 2019)

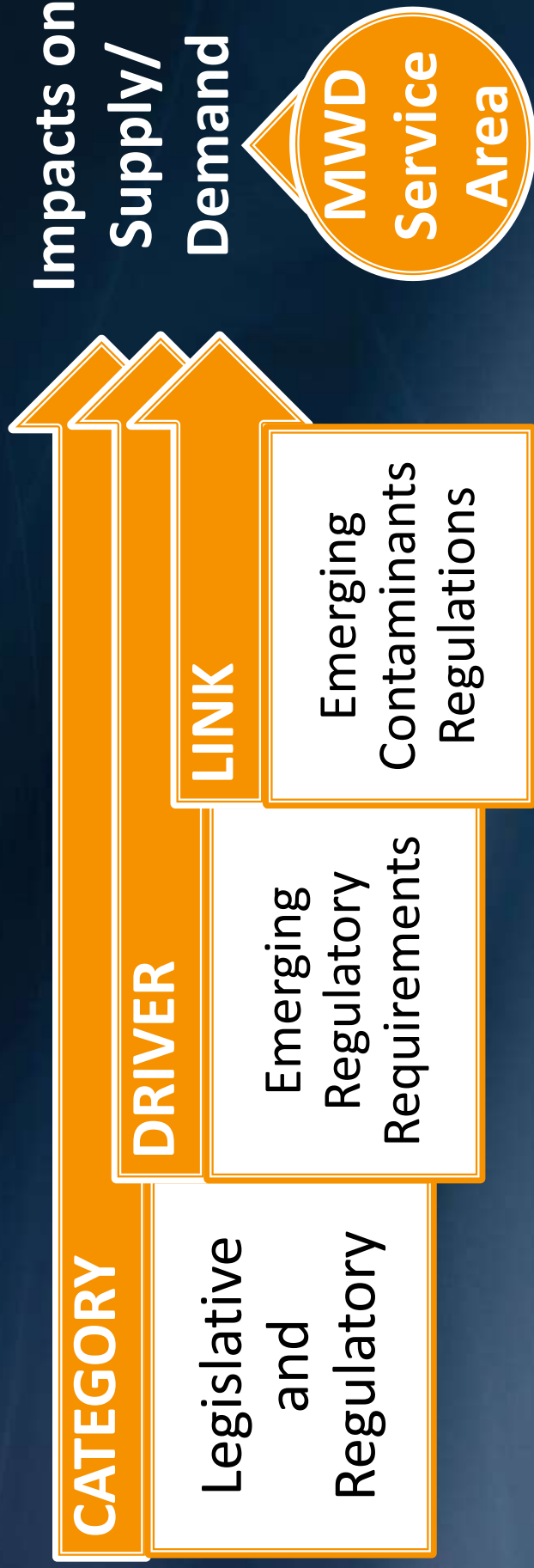
1.06 MAF



Example 3: Possible Groundwater Production Impact PFOA and PFOS detections (SWRCB, 2020)



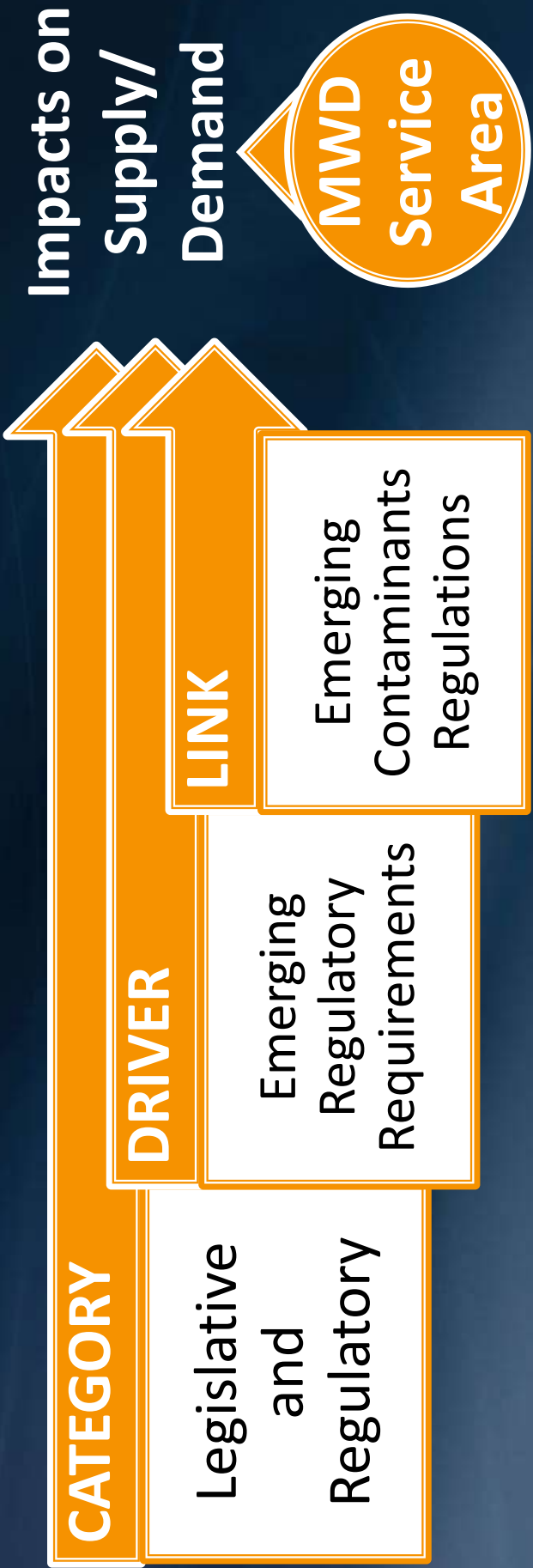
Example 3:



REPLENISHMENT DEMAND

- Does this driver affect demand? YES
- What is the scale of effect? Small
- Can you quantify the demand effect? NO

Example 3:



REPLENISHMENT DEMAND

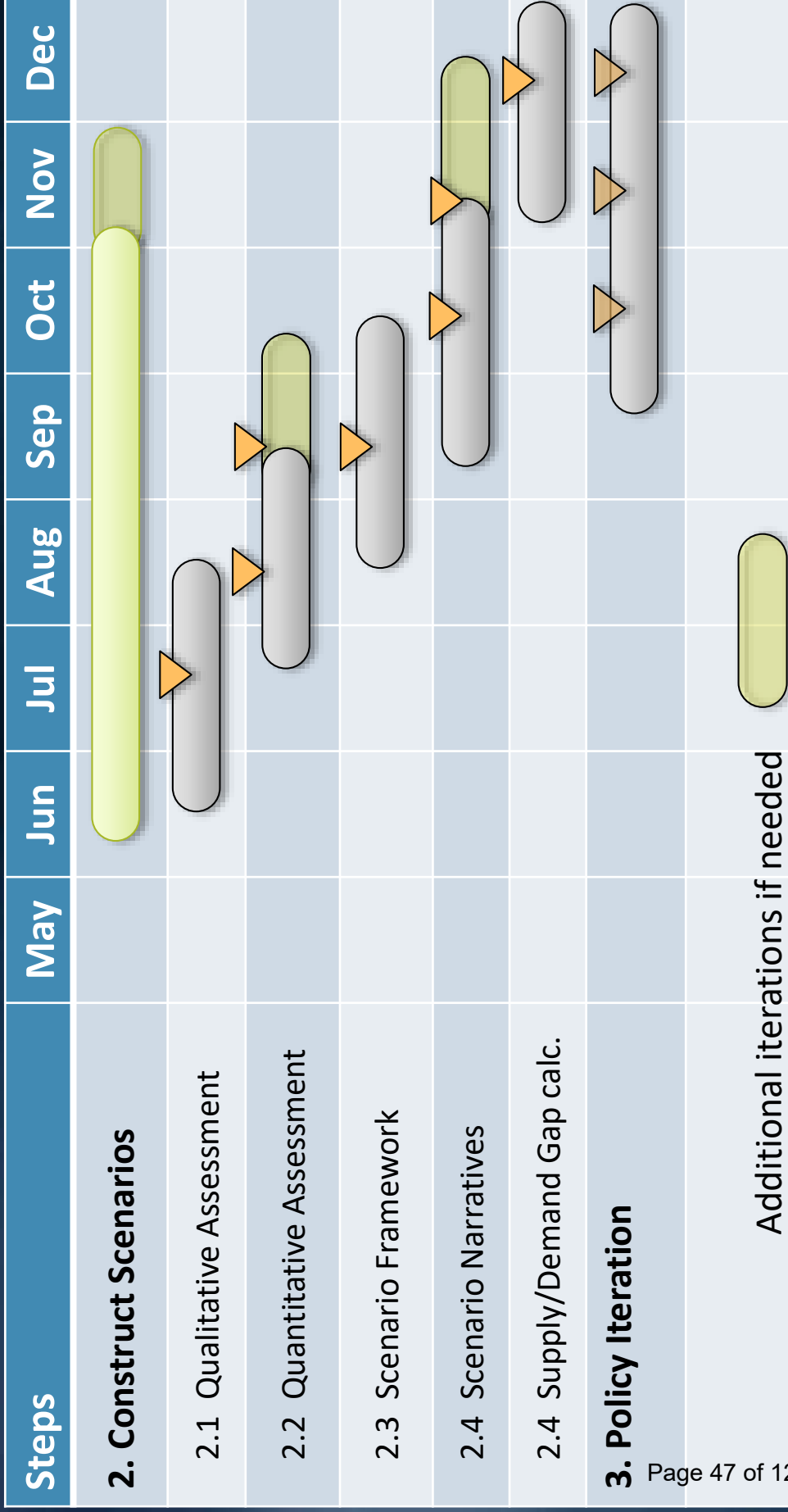
How does it affect demand?	What is the Scale Effect?	How can you quantify the demand effect?
Changes in replenishment needs/quantity	Small	N/A

Working with Member Agencies and their Technical Staff

- Sending a detailed spreadsheet to review potential impacts to supply/demand
- Help identify modeling tools to better quantify local impacts
- Help with assumptions to approximate impacts where quantification is difficult
- Identify and provide data

IRP Process Schedule

2020



What's Next

- Construct scenarios
 - Continue qualitative and quantitative assessment of drivers
 - Collaboratively identify scenarios helpful for policy discussions
- August meeting
 - Review current conditions
 - Discuss purpose and use of IRP
 - Present a scenario and gap analysis for discussion



2015 IRP Retrospective: Planning Assumptions vs. Actuals

INTRODUCTION

The Metropolitan Water District of Southern California prepares for tomorrow through an evolving long-term water strategy known as its Integrated Water Resources Plan, or IRP. The inaugural IRP was adopted in 1996 to address the complexity of developing, maintaining and delivering water to meet changing demands in the face of growing challenge. The plan has been updated several times over the past 25 years. In 2020 we are starting afresh with a new IRP that will incorporate different scenarios for the future. The IRP represents Metropolitan's comprehensive planning process and will serve as Metropolitan's blueprint for long-term water reliability, including key supply development and water use efficiency goals.

This paper reviews planning data assumptions used in the 2015 Integrated Water Resources Plan Update (2015 IRP Update) and compares them with what has been observed over the last 5 years. In January 2016, Metropolitan's board adopted the 2015 IRP Update as the latest in an ongoing series of updates to its long-term adaptive management strategy. As Metropolitan once again considers renewing its strategy with the next IRP, the upcoming 2020 Integrated Water Resources Plan, it is with due diligence that prior assumptions be candidly re-examined, and lessons learned applied. However, it is also important to recognize that the 2015 IRP was an update to a long-term plan with reliability targets and a vision set for water reliability in the year 2040. To the extent that short-term developments may have ended up aligning with or departing from projections does not indicate a success or failure of long-term planning.

Rather, this paper illustrates how much conditions did fluctuate in a mere five-year timespan and is a reminder of how challenging integrated water planning can be in a dynamic system of systems that encompasses no fewer than three distinct watersheds, 26 member agencies, and more than 19 million water-using consumers. At the time when the 2015 IRP was prepared, Southern California had been enduring a historic multi-year drought that had resulted in statewide emergency declarations, mandatory conservation, and depletion of groundwater and other storage reserves and the job market was still in recovery from the worst effects of the Great Recession of 2007-2009. Since then, recent experiences of rapid transition from unprecedented extreme drought to record runoff and then record regional storage balances, new monitoring and mitigation of constituents of emerging concern in local groundwater basins, and, now, the unprecedented economic and lifestyle upheavals in the wake of the unfolding Covid-19 novel coronavirus pandemic all point to the value of explicitly planning for resilience against an array of outcomes.

In general, the recent years after the 2015 IRP are characterized by stabilized water supplies coupled with very low water demands. These have largely resulted in a rebuilding of depleted storage reserves and certain consequences arising from the unexpected persistence of drought austerity-level water demands, including reduced source water for water recycling and reduced demand for imported supply deliveries.

The paper is organized in the following sections:

1. DEMOGRAPHICS
 - 1.1. Population,
 - 1.2. Household
 - 1.3. Employment
2. SOUTHERN CALIFORNIA WEATHER
 - 2.1. Los Angeles Metropolitan Area
 - 2.2. San Diego Metropolitan Area
3. WATER USE EFFICIENCY
 - 3.1. Water Conservation
 - 3.2. Per Capita Water Use
4. TOTAL WATER DEMAND
 - 4.1. Retail M&I Demand
 - 4.2. Agricultural Demand
 - 4.3. Seawater Barrier Demand
 - 4.4. Replenishment Demand
5. TOTAL LOCAL SUPPLY
 - 5.1. Local Production Survey
 - 5.2. Groundwater
 - 5.3. Surface Water
 - 5.4. Los Angeles Aqueduct
 - 5.5. Seawater Desalination
 - 5.6. Groundwater Recovery
 - 5.7. Total Recycled Water
 - 5.7.1. Recycled Water for M&I and Agriculture
 - 5.7.2. Recycled Water for Replenishment
 - 5.7.3. Recycled Water for Seawater Barrier
6. TOTAL METROPOLITAN SUPPLY DELIVERED
 - 6.1. Metropolitan Consumptive Use Delivered
 - 6.2. Metropolitan Seawater Barrier Delivered
 - 6.3. Metropolitan Replenishment Delivered
7. IMPORTED SUPPLY
 - 7.1. State Water Project Supply
 - 7.2. Colorado River Aqueduct Supply
 - 7.3. Storage Balance

1. DEMOGRAPHICS

Demographics of the service area is relevant to determining trends in municipal and industrial water demands. Metropolitan uses demographic growth projections produced by two regional transportation planning agencies, the Southern California Association of Governments (SCAG) and the San Diego Association of Governments (SANDAG). Together, they represent more than 200 cities in Southern California and produce long-term transportation and housing plans for sustainable communities. Among other responsibilities, SCAG and SANDAG also prepare population, household, and employment projections for their metropolitan areas. SCAG released its *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy growth forecast (RTP-12)* in April 2012. SANDAG released its *2050 Regional Growth Forecast (Series 13)* in October 2013.

1.1. Population

Population is a key demographic driver in forecasting residential water demand. Total population for Metropolitan's service area is the aggregate of population within Metropolitan's 26 member agencies.

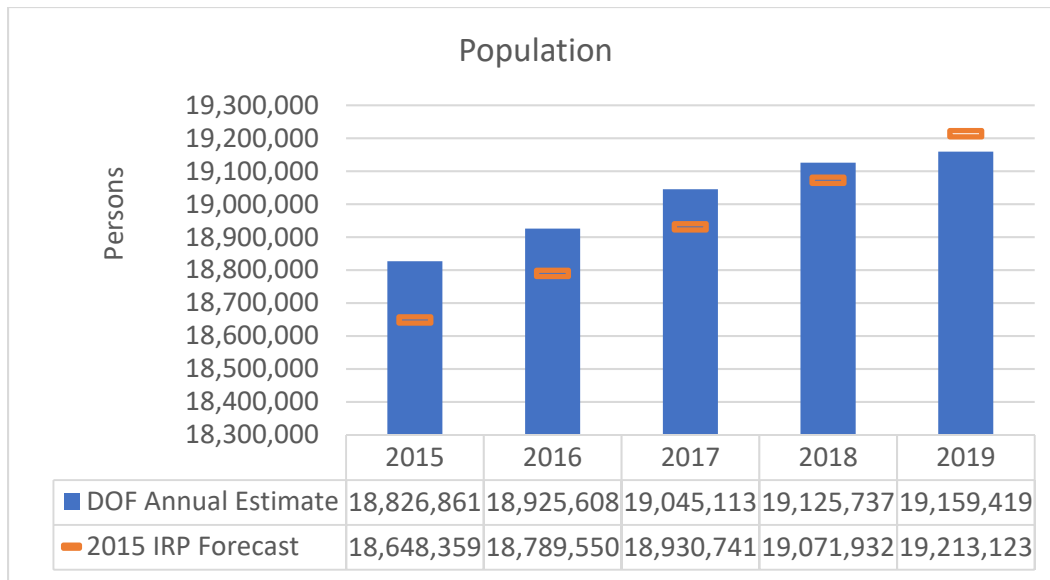
2015 IRP Forecast Input and Assumptions

The 2015 IRP used demographic growth projections developed by SCAG and SANDAG. These projections were produced following the Great Recession of 2007-2009. During that time, economic uncertainties and high housing cost affected people's decision to start families. Consequently, this delayed family formation, reduced birth rates, and lowered mortality rates among older people contributed to slower population growth.

2015 – 2019 Data and Observation

The California Department of Finance (CA DOF) produces annual estimates of population for the State's planning and budgeting. Metropolitan prorates the CA DOF's county-level estimates to the 26 member agencies' service area and then aggregates the results to determine the 2015-2019 population in Metropolitan service area.

As shown in the figure below, population for years 2015 to 2018 exceeded SCAG and SANDAG projections. This was due in part to the long-lasting economic expansion that surpassed expectations estimated following the Great Recession. However, by 2019 a combination of factors including shortage of housing, rising housing prices, and national policies that inhibited trade and immigration, culminated in lower population relative to the 2015 IRP projections. The CA DOF noted that the years 2018 and 2019 were its two lowest recorded growth rates since 1900.



1.2. Household

The number of households in the service area is also a key demographic driver in forecasting residential water demand. A household includes all the persons who occupy a housing unit as their usual place of residence. Household formation depends on housing availability, economic conditions, and migration.

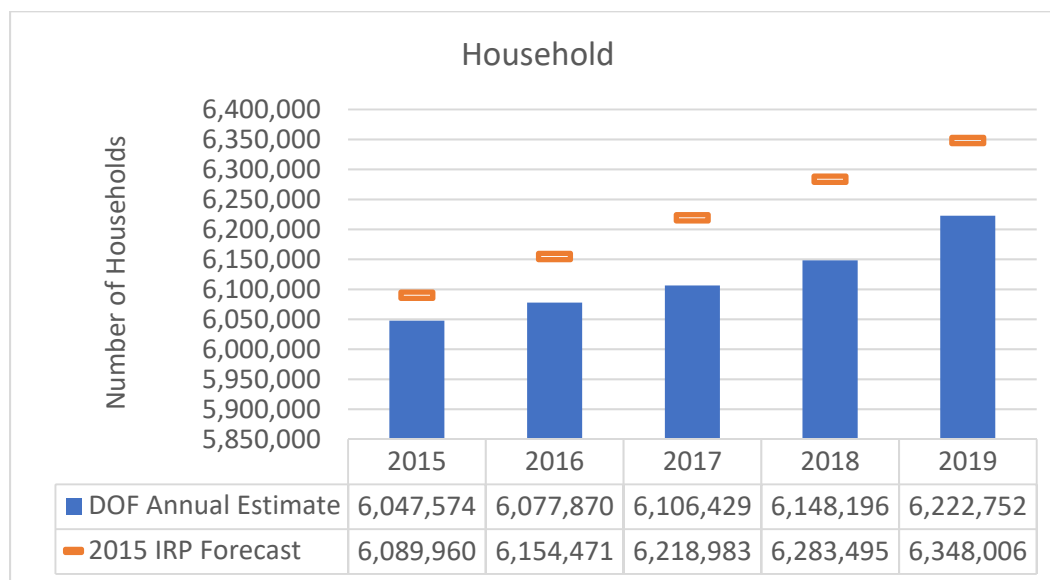
2015 IRP Forecast Input and Assumptions

The 2015 IRP used demographic growth projections developed by SCAG and SANDAG. These projections were developed in the aftermath of the Great Recession of 2007-2009. The projections from 2015 through 2020 took into account the disproportional affect the Great Recession had on the construction industry.

2015 – 2019 Data and Observation

The CA DOF also produces annual household estimates. Metropolitan prorates the CA DOF's county-level estimates to the 26 member agencies' service area and then aggregates the results to determine 2015-2019 household in Metropolitan service area.

Although the forecast anticipated a slower housing recovery after the Great Recession, the CA DOF's annual household estimates were even lower than forecasted by SCAG and SANDAG as shown in the figure below. New home construction was stifled by economic uncertainties, permitting challenges, falling foreign investment, and continued tightening of consumer credit. As a result, housing development did not keep up with the region's population growth.



1.3. Employment

Employment is a key driver in forecasting non-residential water demand. Employment consists of urban employment for all economic activity such as goods-producing and services-providing sectors. Total employment for Metropolitan's service area is the aggregate of urban employment within Metropolitan's 26 member agencies.

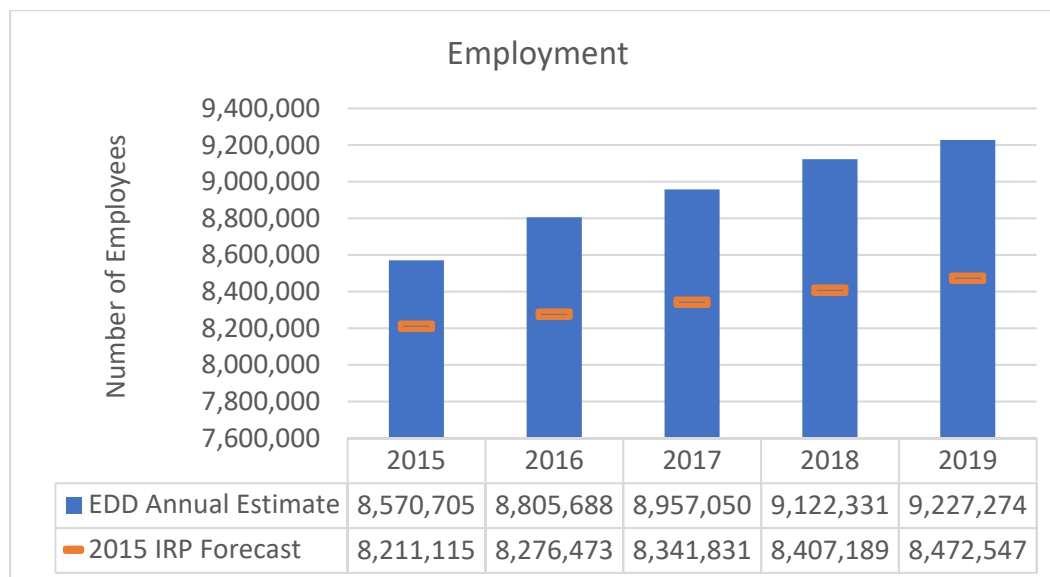
2015 IRP Forecast Input and Assumptions

The 2015 IRP used the SCAG RTP-12 and SANDAG Series 13 employment forecasts. These forecasts reflected deep job losses resulting from the Great Recession of 2007-2009. In its 2012 forecast, SCAG had only assumed a recovery period of accelerated job growth between the years 2010 and 2015 and then assumed a resumption of normal long-term employment growth trajectory after 2015. It should be noted that the SCAG and SANDAG projections do not reflect short-term economic cycles but rather long-term economic trends.

2015 – 2019 Data and Observation

The CA Employment Development Department (EDD) also produces annual employment estimates. Metropolitan prorates the CA DOF's county-level estimates to the 26 member agencies' service area and then aggregates the results to determine employment for 2015-2019 in Metropolitan service area.

As shown in the figure below, the EDD annual employment estimates exceeded the IRP Forecast. For the years 2015 through 2019, the region experienced unprecedented economic growth with record low unemployment rates. Because SCAG and SANDAG assumed a return to normal long-term employment trend after 2015, the employment levels far exceeded the forecast during this period of dynamic job growth.



2. SOUTHERN CALIFORNIA WEATHER

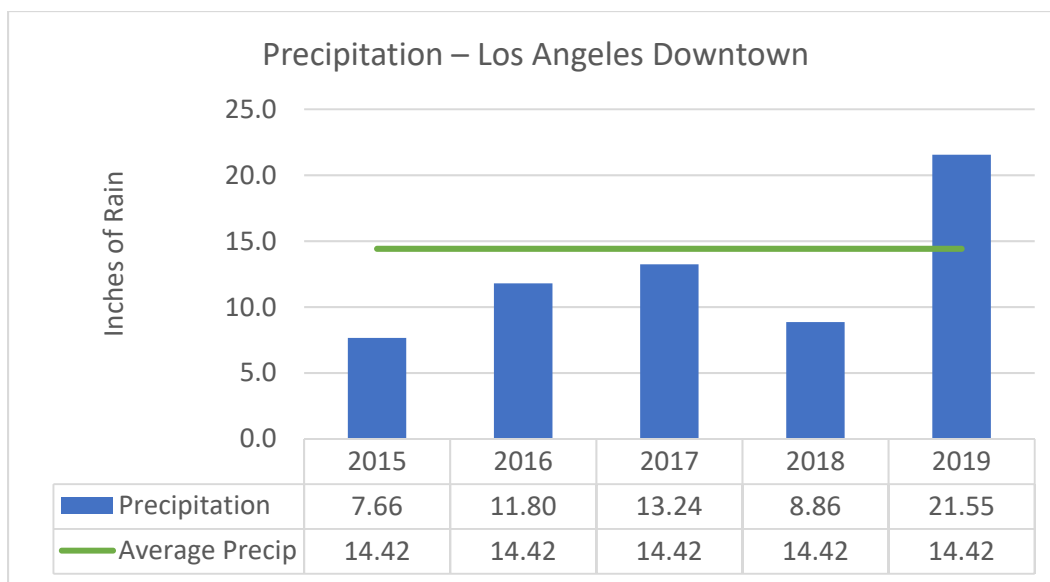
Local weather variations such as temperature and rainfall can affect water demand and local water production as well as the amount of water that must be imported into Metropolitan’s service area.

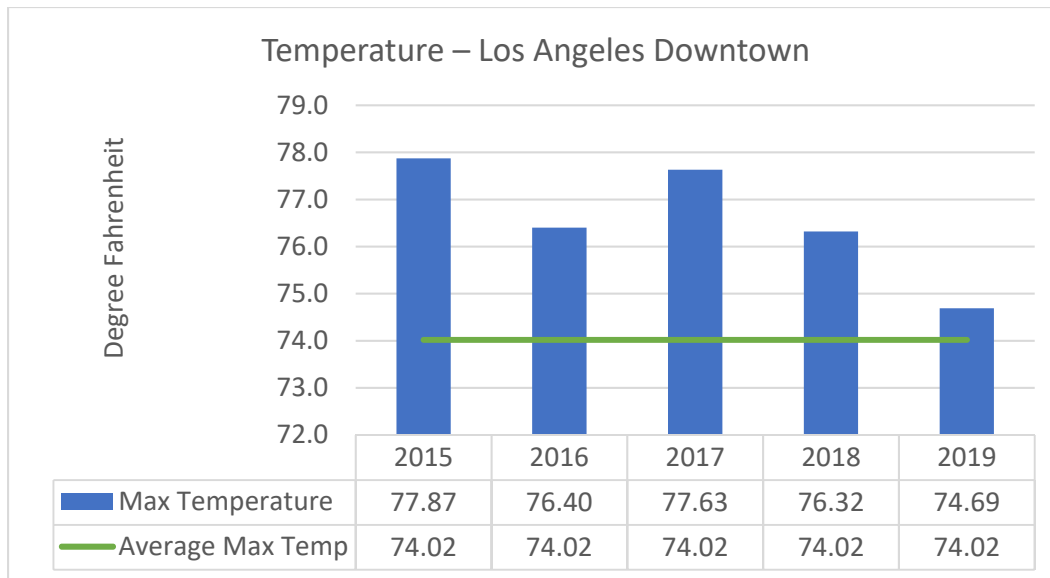
Although Metropolitan’s service area spans six counties with multiple climate zones, weather data from the Los Angeles and the San Diego metropolitan areas are used as representative samples to give context of actual water demand and supply discussed throughout this paper.

2.1. Los Angeles Metropolitan Area

Weather for the Los Angeles metropolitan area is provided by the National Weather Service utilizing sensors capturing precipitation and annual average maximum temperature measured at the University of Southern California campus.

As shown in the figures below, years 2015-18 were dry and hot with below average precipitation and above average temperatures. In 2019, wet and cool weather returned with above average precipitation and slightly above average temperatures.

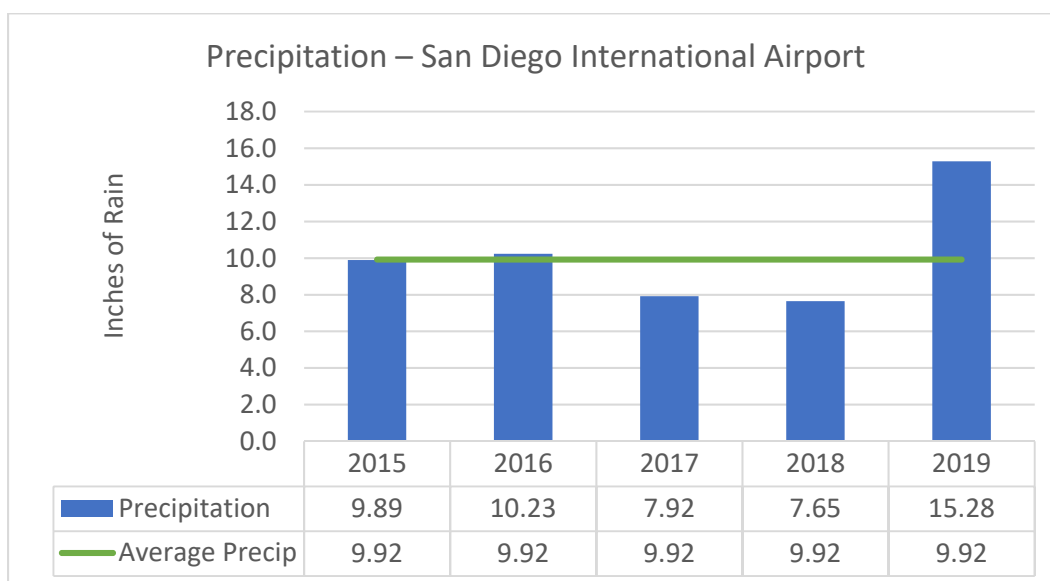


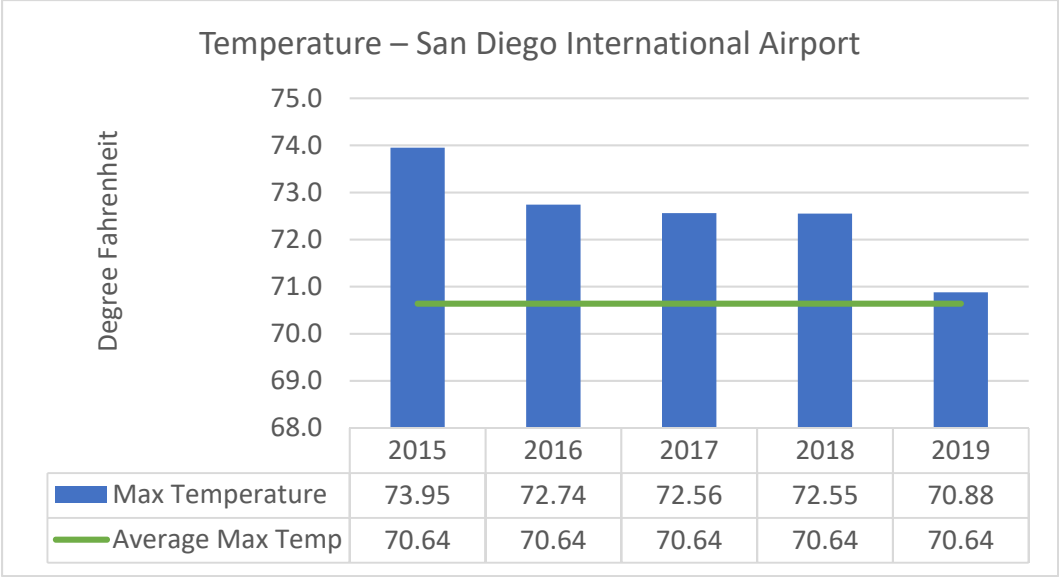


2.2. San Diego Metropolitan Area

Weather for the San Diego metropolitan area is provided by the National Weather Service utilizing sensors capturing precipitation and annual average maximum temperature measured at the San Diego International Airport.

As shown in the figures below, years 2015-18 were dry and hot with average and below average precipitation and above average temperatures. In 2019, wet and cool weather returned with above average precipitation and slightly above average temperatures.





3. WATER USE EFFICIENCY

Water use efficiency is achieved, in the most part through water conservation and recycled water. In this section, conservation savings are quantified from devices, programs, and plumbing codes. Water use efficiency over time is illustrated on a per capita basis.

3.1 Conservation

Water conservation reduces water demand through changes in consumer behavior and savings from water-efficient fixtures. Unlike water supplies, which can be directly measured, water conservation reduces water demand in ways that can only be quantified indirectly. Metropolitan uses a model to calculate water savings from active conservation programs funded by Metropolitan and its member agencies, as well as water savings from code-based conservation produced through plumbing codes. These water savings reduce demands for water in the region.

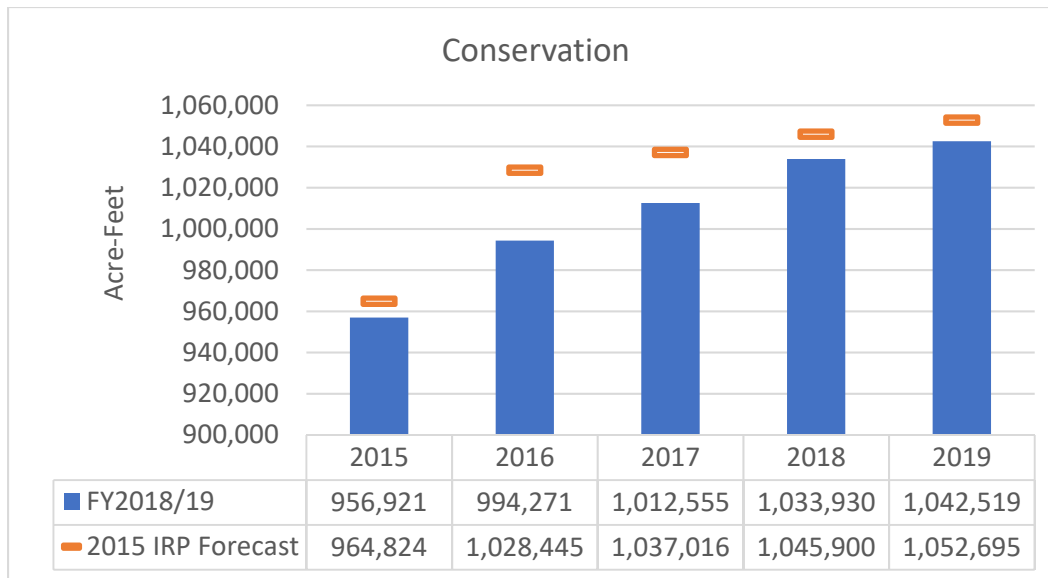
2015 IRP Forecast Input and Assumptions

Key inputs of the conservation model for calculating active conservation savings are annual water-efficient devices installed and programs administered by Metropolitan and its member agencies. For active conservation (conservation from programs administered by Metropolitan and its member agencies), the 2015 IRP assumed an extraordinary investment of \$450 million for the Turf Removal Program and the Conservation Credits Program over a two-year period (2015 and 2016). The projections also included water savings from Model Water Efficient Landscape Ordinance, assuming 50 percent compliance rate for new home construction. For additional information, please see Chapter 3 of the 2015 IRP Report. Other key inputs used in calculating plumbing code compliance savings are household and employment projections from SCAG RTP-12 and SANDAG Series 13. Conservation savings also include savings from price effect or reduced water use as the price of water increases.

2015 – 2019 Data and Observation

The fiscal year water saving shown in the figure below are calculated based on Metropolitan and member agency administered programs, code-base savings, and price-effect. Demand for the Turf Removal Program dropped significantly by 2016, resulting in lower than projected water savings.

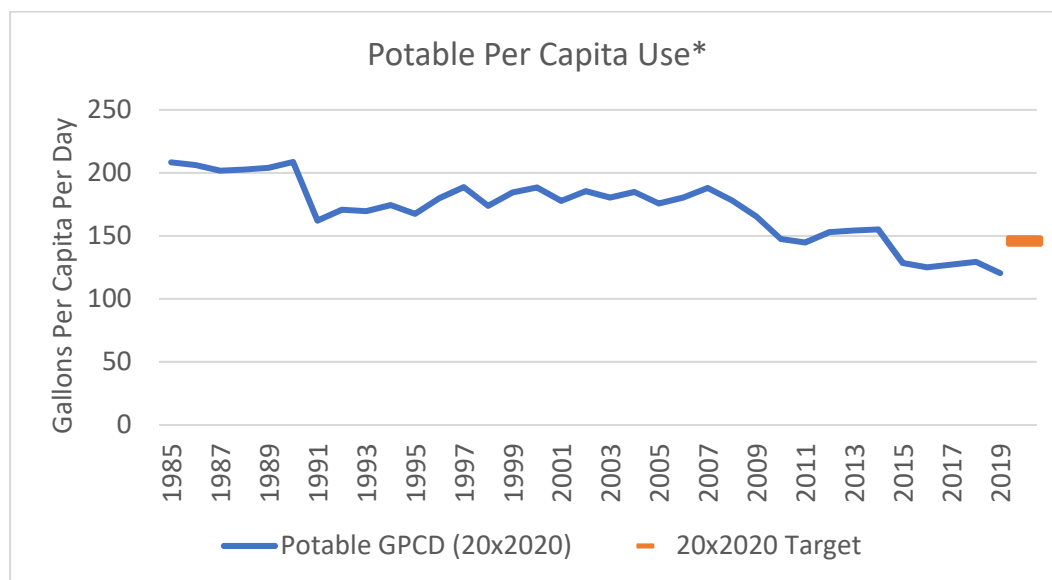
Water savings from changes in consumer water use behavior (e.g. response to mandatory drought or conservation messaging) are not captured in the figure below. See section 3.2 Per Capita Water Use for water savings due to consumer water use behavior.



3.2: Per Capita Water Use

Water use efficiency can be examined on a per capita basis. Per capita reductions can be accomplished by improving water use efficiency through increased water conservation and increased use of recycled water to offset potable demand. The figure below captures savings per capita from conservation devices and programs (described in section 3.1 Water Conservation above), savings from behavioral conservation, and recycled water uses (described in section 5.7 Total Recycled Water below).

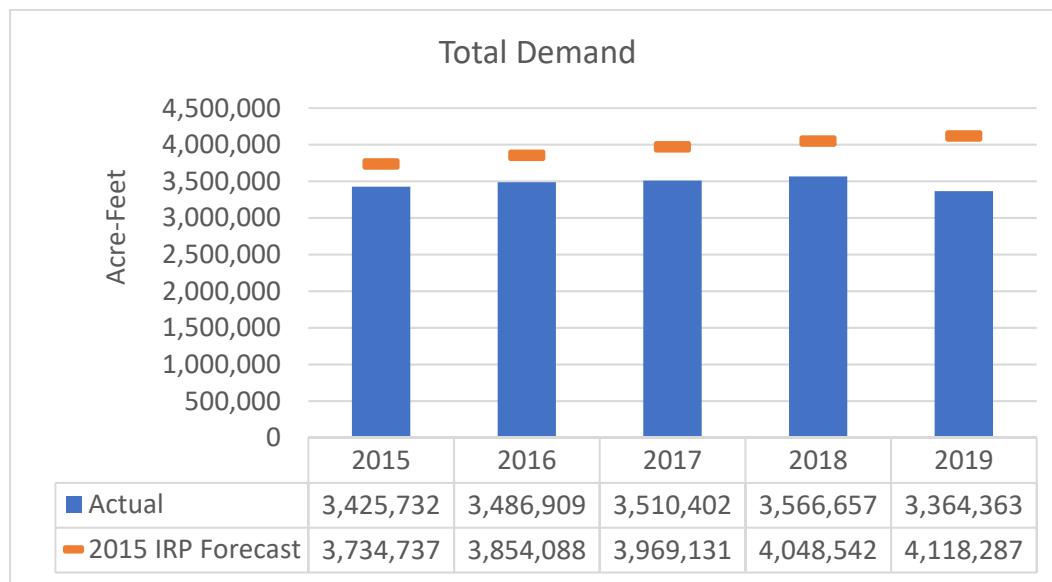
Since the 1989-1990 drought, potable per capita use has been declining as the region embraced water use efficiency practices and developed and used recycled water to offset potable water supply. The Water Conservation Act of 2009 (Senate Bill X7-7) called for permanent reduction in potable per capita water use by 20 percent by the year 2020 (a.k.a. 20x2020). The 20x2020 target for Metropolitan is 146 gallons per capita per day (GPCD). Since 2015, potable per capita use dropped lower than the 20x2020 target as residents continued outdoor water use efficiency practices. In some cities, outdoor water use ordinances remain in effect even following the statewide lifting of mandatory drought restrictions in 2017. In 2019, the potable per capita use dropped to 120 GPCD, 34 percent lower from the baseline (1996-2005 average) of 182 GPCD.



* Consistent with SBx7-7 potable use. The per capita use graphic includes all water use in Metropolitan's service area, including residential, agricultural, commercial, industrial, and institutional use.

4. TOTAL WATER DEMAND

Total demand represents the amount of water needed to sustain and maintain livelihood in Southern California including household, commercial, industrial, institutional, agricultural uses. It also includes replenishment and seawater barrier water needed to protect and support local groundwater basins to ensure adequate production. Total demand is the sum of Retail M&I Demand, Agricultural Demand, Seawater Barrier Demand, and Replenishment demand. Overall, the 2015 IRP forecast was higher than the actual total demand as shown in the figure below and discussed in the following subsections.



4.1. Retail M&I Demand

Retail Municipal and Industrial (M&I) demand represents the full spectrum of urban water use within the region including residential, commercial, industrial and institutional water uses.

2015 IRP Forecast Input and Assumptions

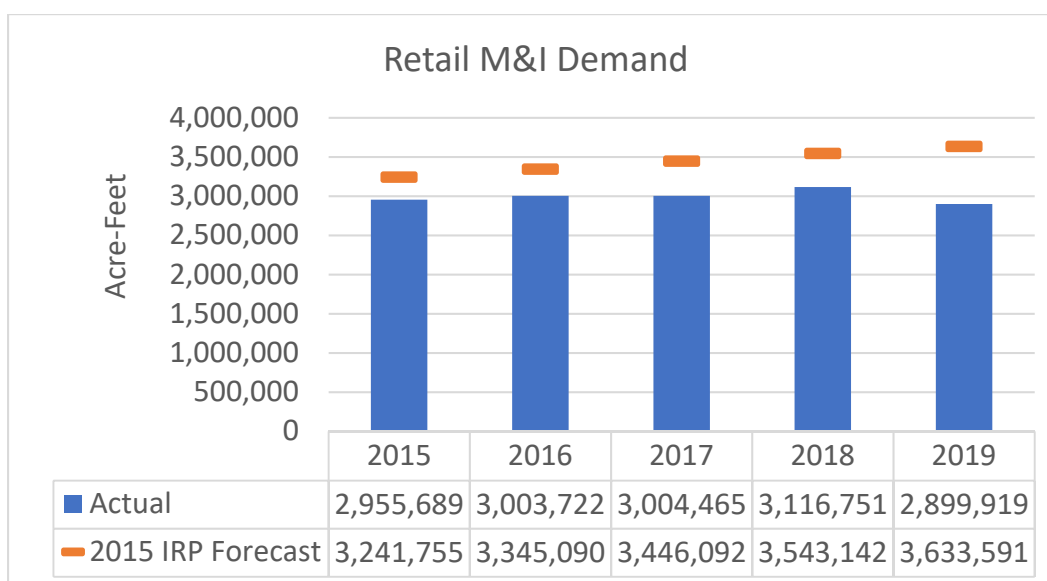
Metropolitan uses econometric models that have been adapted for conditions in Southern California to forecast retail M&I demand. The econometric models are statistical models that are intended to capture and explain the impacts of long-term socioeconomic trends on retail M&I demand. Key drivers for the models are price, precipitation, temperature, median lot size, median household income, and employment. The models estimate the average monthly household and employment use. The total water use is the sum-product of total monthly household and employment use based projected households and employment, respectively.

The 2015 IRP forecast factored the impacts of the water use restrictions mandated by Governor Brown's executive order in April 2015 in response to the drought. The 2015 IRP forecast assumed water demand would rebound to near pre-drought levels by 2020 as drought related water use restrictions eased. The 2015 IRP forecasts shown reflect actual weather conditions observed in each year for 2015-2019.

2015 – 2019 Data and Observation

Metropolitan surveys its member agencies annually for local supply production data. Annual estimates of retail M&I demand are the sum of surveyed local water supply production and imported water delivered by Metropolitan for M&I use.

As shown in the figure below, actual M&I water use was below the 2015 IRP forecast for years 2015-2019. M&I water use was driven down in part as a response to Governor Brown's executive order mandating water use restrictions. The region exceeded the targeted water use reductions while the mandate was in place from 2015-2016. In fact, the region's water use continues to remain at historic low levels to this day despite variable hydrologic conditions since 2016. Slow housing development and continued water-efficient practices by consumers also contributed in keeping M&I water use below the 2015 IRP forecast.



4.2. Agricultural Demand

Retail agricultural demand consists of water use for irrigating crops.

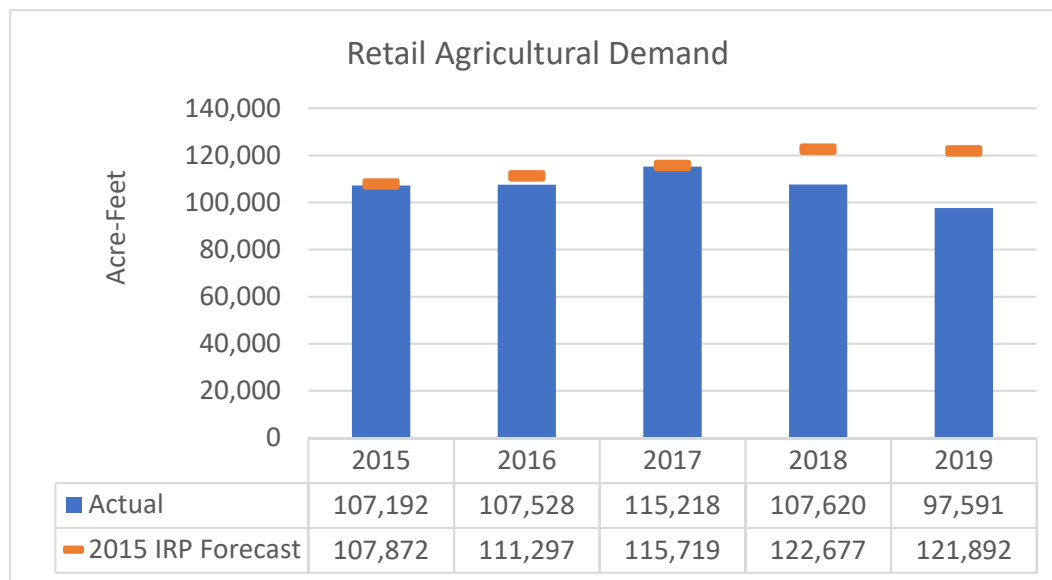
2015 IRP Forecast Input and Assumptions

Metropolitan's member agencies provide projections of agricultural water use based on many factors, including farm acreage, crop types, historical water use and land use conversion. The projections are adjusted for climate effects.

2015 – 2019 Data and Observation

Metropolitan surveys its member agencies annually to track retail agricultural demand. Annual estimates of agricultural demand are the sum of surveyed local water supply production and imported water delivered by Metropolitan for agricultural use.

As shown in the figure below, the actual agricultural demand fell short of the IRP forecast for 2018 and 2019. There are many factors that affect agricultural production. The US/China trade war that began in 2018 could have impacted production as well as cool and wet weather observed in 2019.



4.3. Seawater Barrier Demand

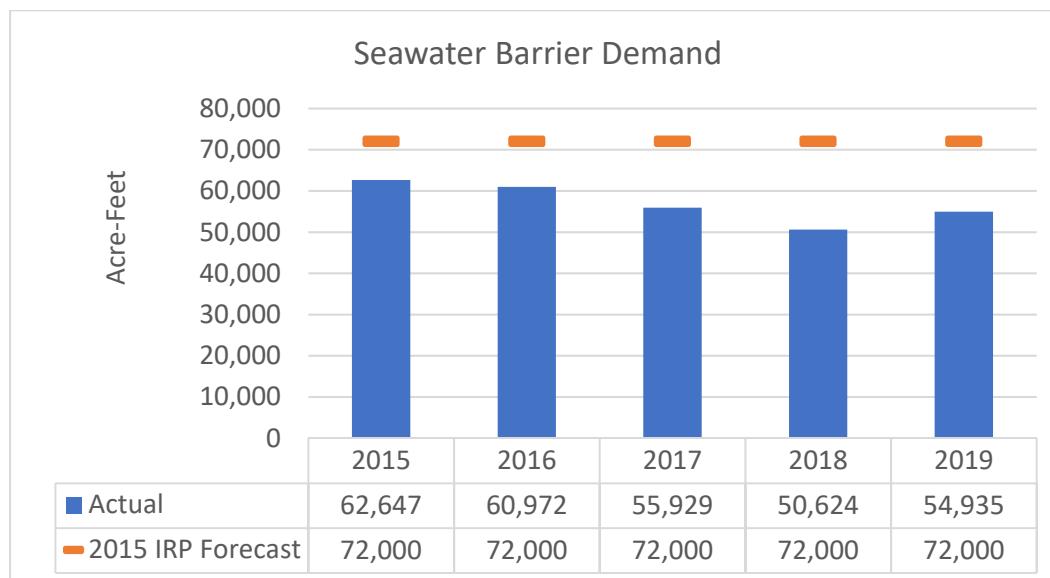
Seawater barrier demand represents the amount of water needed to prevent seawater intrusion into the coastal groundwater basins. There are four seawater barriers in Metropolitan's service area: the Talbert Gap Barrier, Alamitos Gap Barrier, Dominguez Gap Barrier, and West Coast Gap Barrier. The source of supply for these barriers are a mix of local advance treated recycled water and imported water from Metropolitan.

2015 IRP Forecast Input and Assumptions

Groundwater management agencies determine the barrier requirements based on groundwater levels, injection wells, and regulatory permits. Metropolitan surveys its member agencies to project future demand for the seawater barriers. Total annual replenishment demand was projected at 72,000 acre-feet.

2015 – 2019 Data and Observation

Annual seawater barrier demands are calculated based on surveyed recycled water production for seawater barriers and imported water delivered by Metropolitan for seawater barriers. Overall, the 2015 IRP forecast was higher by 9,000 acre-feet in 2015 and 22,000 acre-feet in 2018 as shown in the figure below. Contributing factors for the lower seawater barrier demand include operational constraints and limited recycled water availability.



4.4. Replenishment Demand

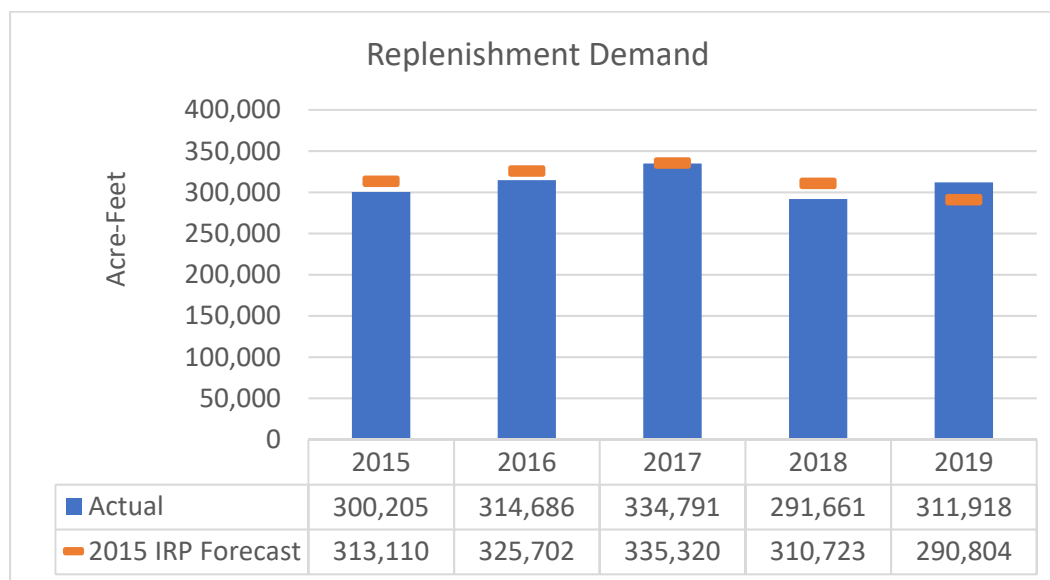
Replenishment demand represents the amount of water groundwater agencies plan to use to replenish their basins in order to maintain sustainable basin health and production. Replenishment demand does not include natural recharge or stormwater capture.

2015 IRP Forecast Input and Assumptions

Groundwater management agencies determine the replenishment requirements based production, basin health, safe-yield level, and natural and stormwater recharge. Sources to meet replenishment demand consists of recycled water and imported water. See section 5.7.2 Recycled Water for Replenishment and section 6.3 Metropolitan Replenishment Delivered sections for forecast input and assumptions below.

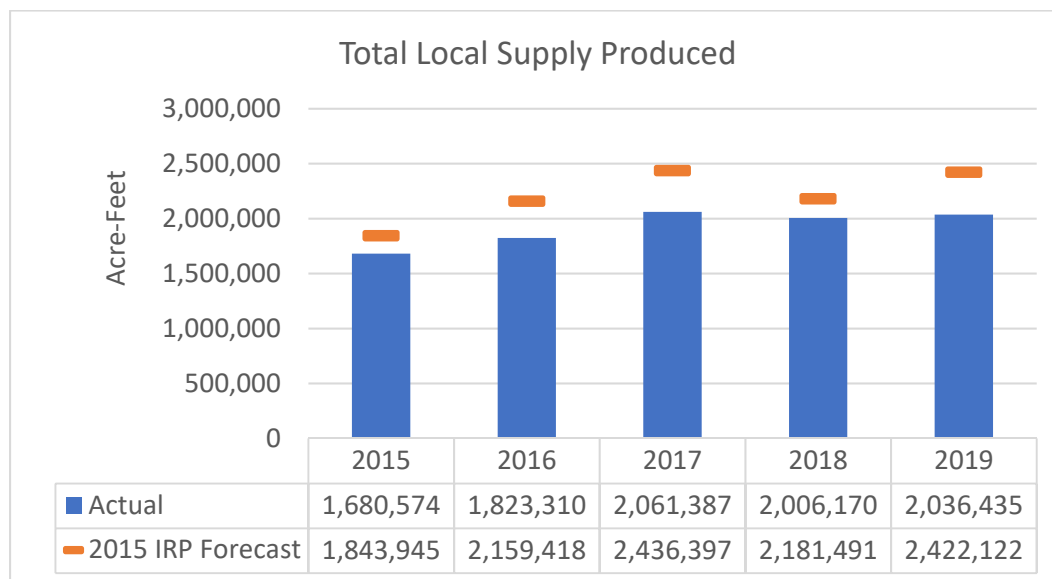
2015 – 2019 Data and Observation

Metropolitan annually surveys its member agencies to track replenishment demand. Replenishment demand are the sum of surveyed recycled water production and imported water delivered by Metropolitan for groundwater replenishment. Overall, the 2015 IRP forecast was relatively close to actual replenishment demand as shown in the figure below. See section 5.7.2 Recycled Water for Replenishment and section 6.3 Metropolitan Replenishment Delivered sections for observation.



5. TOTAL LOCAL SUPPLY

Local supplies are water produced by Metropolitan’s member agencies and all other water providers in the service area to meet demand in the service area. Projections of local supplies reference information from multiple sources, including Urban Water Management Plans, Metropolitan’s annual Local Production Survey, and discussions between Metropolitan and member agency staff. Total Local Supply is the sum of all groundwater, surface water, Los Angeles Aqueduct, seawater desalination, groundwater recovery, and recycled water production. Overall, the 2015 IRP forecast overestimated local supply production as shown in the figure below and discussed in the following subsections.



5.1. Local Production Survey

As a normal course of business, Metropolitan requests its member agencies complete the Local Production Survey. This survey is unique to each member agency and is intended to account for all sources of local supply produced by the member agencies, retail agencies, groundwater agencies, and private producers. Local supply production consists of:

- Groundwater
- Surface Water
- Los Angeles Aqueduct
- Seawater Desalination
- Groundwater Recovery
- Recycled Water

The Local Production Survey also asks the member agencies to identify usage by type (M&I, Agricultural, Seawater Barrier, and Replenishment). The Local Production Survey is conducted annually and the data requested is on a monthly time-step. The actuals shown in the following figures come from the annual Local Production Surveys.

5.2. Groundwater

Groundwater is the production of water extracted from underground aquifers. Many people in Southern California depend on groundwater as a primary source of water supply. Groundwater basins within Metropolitan's service area provide an average of 1.28 million acre-feet per year (2000-19 average).

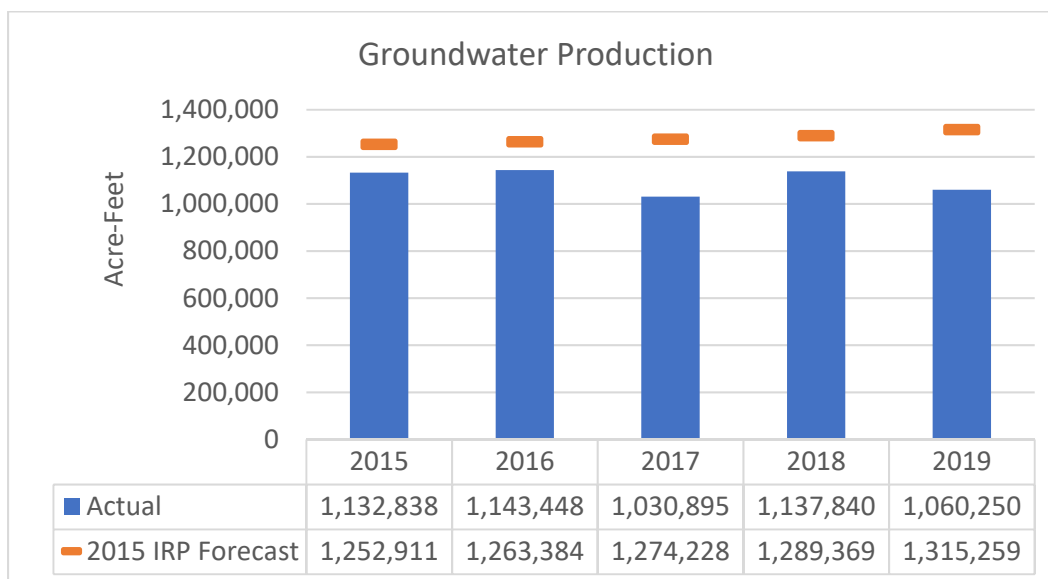
2015 IRP Forecast Input and Assumptions

For the 2015 IRP forecast, Metropolitan surveyed member agencies and groundwater agencies for their respective groundwater safe yield and production capability. The projection factored in recharge from natural flows, stormwater capture, replenishment from recycled and imported sources that support and maintain projected production. The projection also assumed groundwater is the primary source of supply (compared to more expensive alternatives) and would be produced at the full production capability to meet demand.

For Orange County agencies, the projection assumed 70% Basin Pumping Percentage (BPP) for 2015-18 and 75% for 2019. The BPP is the percentage of total demand that can be met with groundwater.

2015 – 2019 Data and Observation

Overall, actual groundwater production was lower than the 2015 IRP forecast as shown in the figure below. This is due in part to lower M&I and agricultural demands resulting in less need for groundwater production. There was no known loss of production capacity during this period except in 2019 where some wells in Orange County Basin were shut down due to per- and polyfluoroalkyl substances (PFAS). In addition, LADWP reduced groundwater production in 2017 and 2019 in order to prioritize use of abundant Los Angeles Aqueduct supply.



5.3. Surface Water

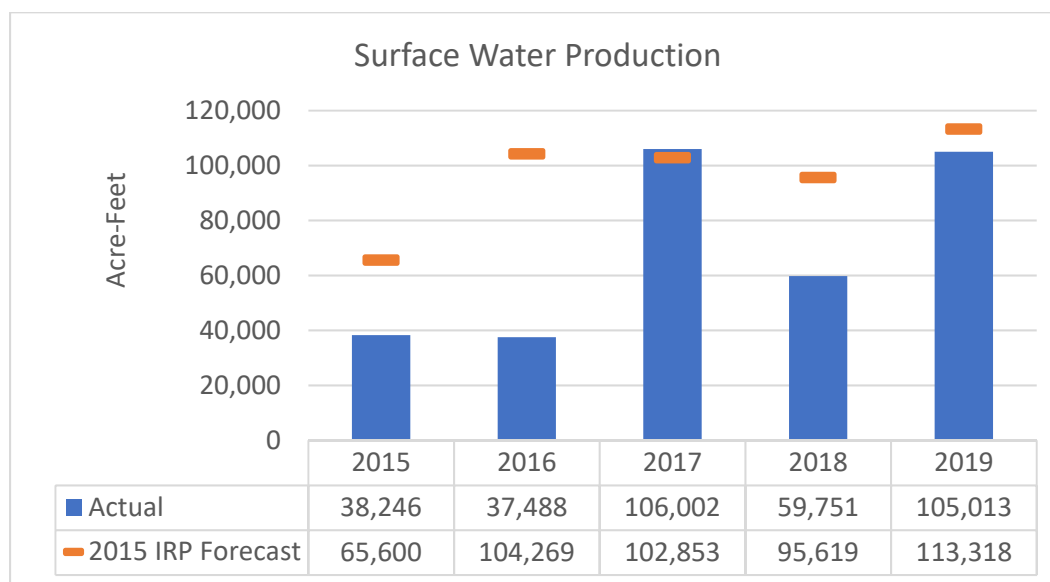
Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Reservoirs hold the runoff for later direct use, and diversions from streams are delivered directly to local water systems.

2015 IRP Forecast Input and Assumptions

About half of the region's surface water production is within San Diego County. Metropolitan projected the San Diego County Water Authority's surface water production using a model that correlates historical precipitation with surface reservoir production. Surface production from other agencies were not modeled to correlate with precipitation because the stream flows and reservoirs are relatively small.

2015 – 2019 Data and Observation

Surface production is highly dependent on hydrologic conditions and can vary from year to year, as seen from 2015 through 2019 in the figure below. In 2016, despite near average precipitation for both Los Angeles and San Diego, the region only produced about 38,000 acre-feet. This may be due to dry soil conditions and parched vegetation following 5 years of drought resulting in below average local runoff.



5.4. Los Angeles Aqueduct

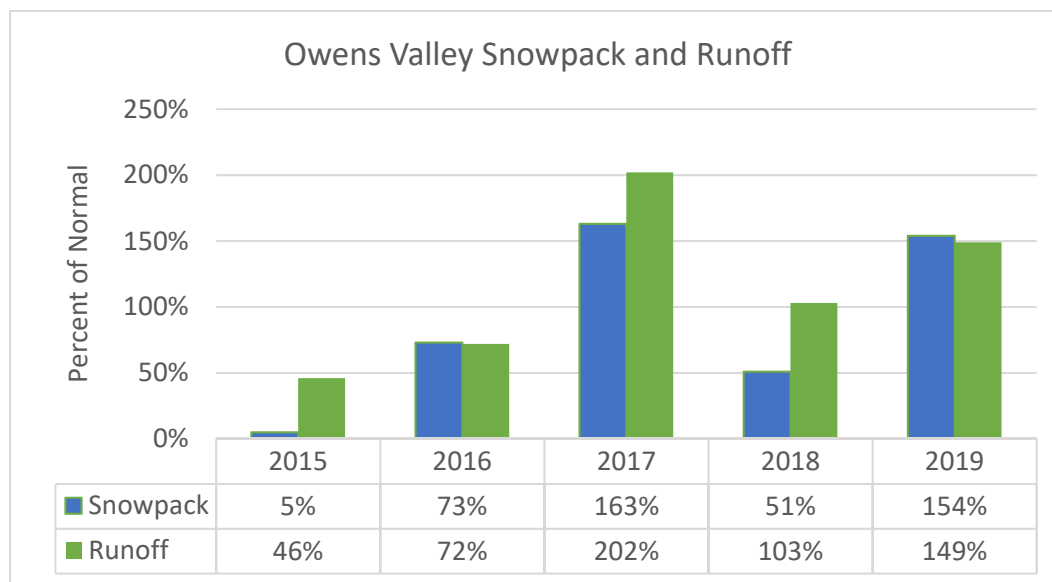
Los Angeles Department of Water and Power (LADWP) conveys water from the Owens Valley via the Los Angeles Aqueduct (LAA). Although LADWP imports water from outside of Metropolitan's service area, Metropolitan considers the LAA delivery as a local resource because it is developed and controlled by a local agency.

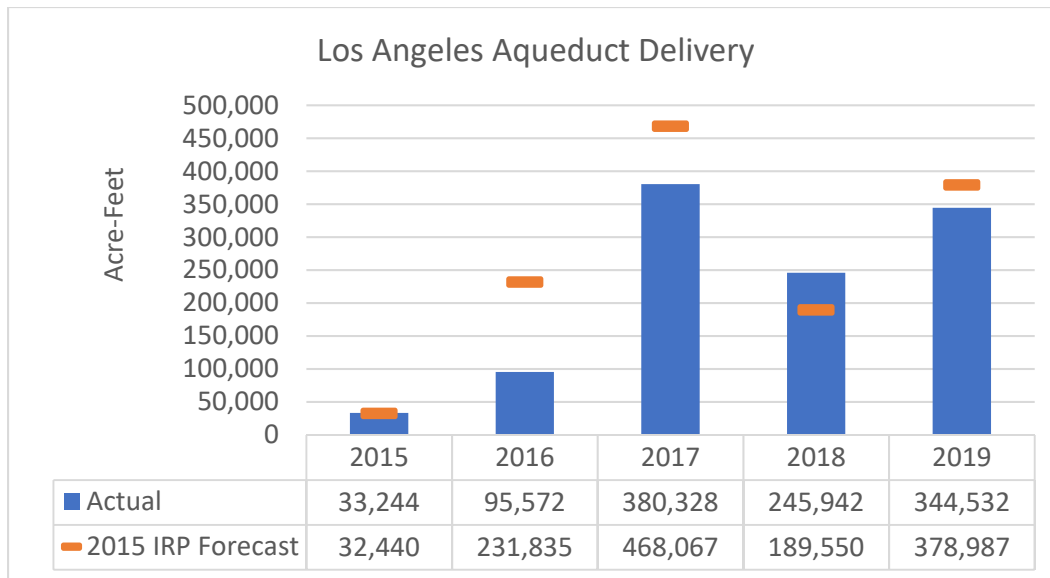
2015 IRP Forecast Input and Assumptions

Metropolitan uses modeling results provided by LADWP for LAA deliveries. This model also uses 91 historical hydrologic conditions to produce a distribution of outcomes ranging from the driest to the wettest years.

2015 – 2019 Data and Observation

The LAA supply is highly dependent on hydrologic conditions in Owens Valley of the Southern Sierra. As such, supply can swing significantly from year to year and well correlated with those hydrologic conditions as shown in the figures below. For 2015, LADWP provided a delivery estimate for Metropolitan's model input. Following consecutive below normal years, the Southern Sierra saw improved hydrologic conditions in 2016. The supply yield for the LAA, however, was well below normal because of the dry soil moisture and parched vegetation that soaked up portions of the runoff that year. In 2017, a wet year provided ample supplies for the LAA, however deliveries were limited to 380,000 acre-feet due to low demand in LADWP's region.





5.5. Seawater Desalination

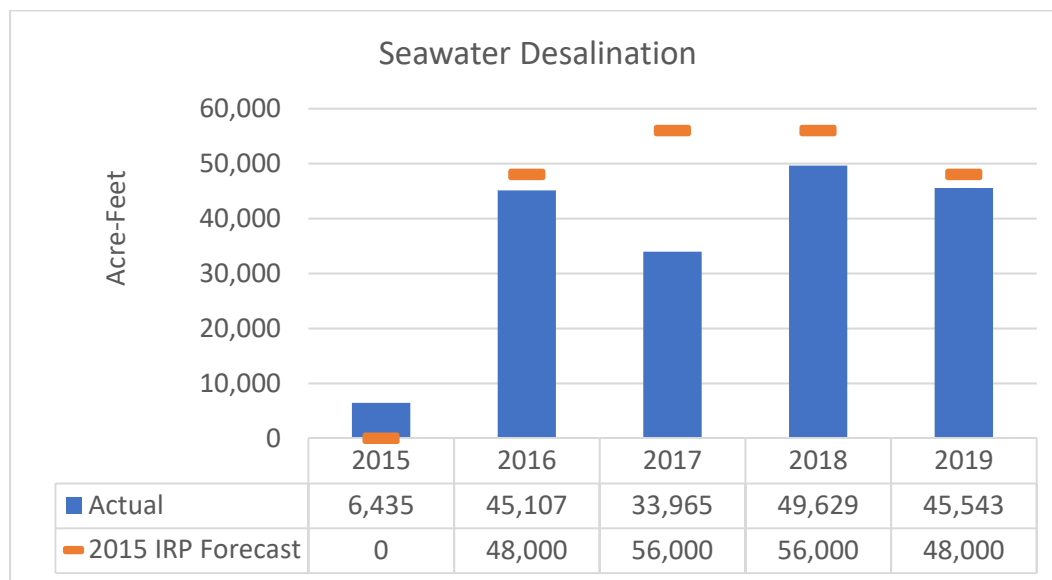
Seawater desalination utilizes advanced technology to convert ocean water to potable water.

2015 IRP Forecast Input and Assumptions

There is only one desalination facility operating within Metropolitan’s service area. The San Diego County Water Authority (SDCWA) completed construction of the Carlsbad Desalination project, which went online in 2015. The 2015 IRP projection assumed the contracted amount of 48,000 acre-feet for normal and wet years and 56,000 acre-feet for dry years.

2015 – 2019 Data and Observation

Production started in November 2015 with nearly 6,500 acre-feet ramping up to 45,107 acre-feet in 2016 as shown in the figure below. The dip in production in 2017 is attributed to mechanical issues at the plant that led to periodic outages. More normal operations resumed in 2018 and 2019.



5.6. Groundwater Recovery

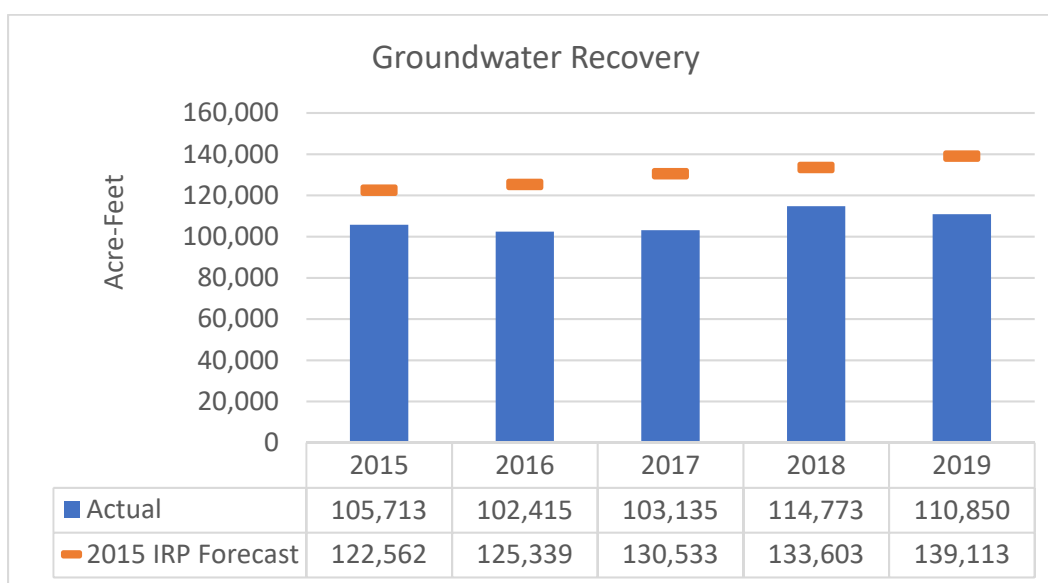
Groundwater recovery projects treat contaminated or high salinity groundwater to meet potable use standards.

2015 IRP Forecast Input and Assumptions

The 2015 IRP forecast considered existing and under construction groundwater recovery projects. A complete list of projects can be found in the 2015 IRP Update Report, Appendix 5.

2015 – 2019 Data and Observation

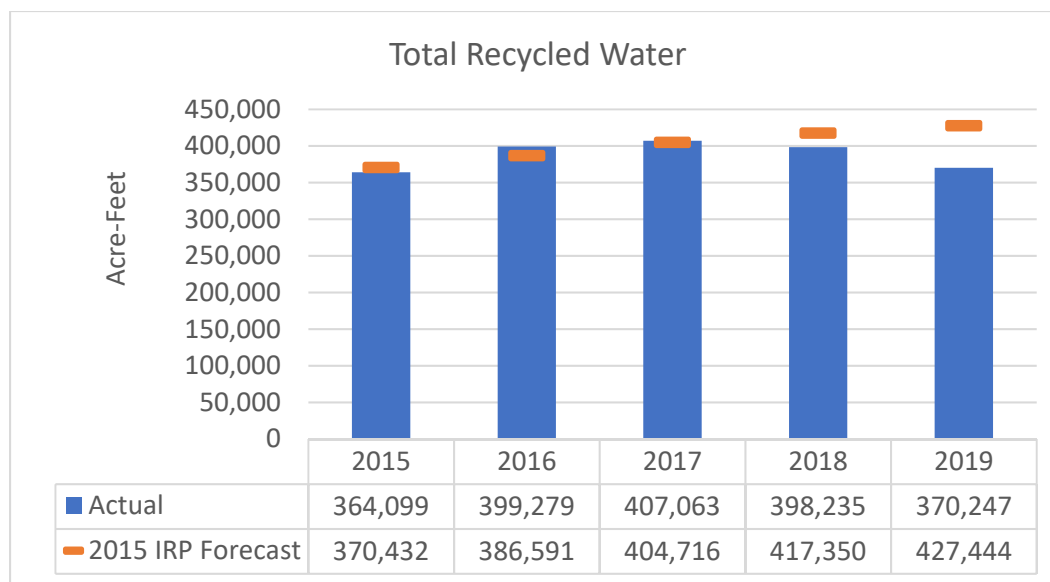
Groundwater recovery supplies are used for meeting M&I demand. As shown in the figure below, actual groundwater recovery production fell below the 2015 IRP forecast due to facility shutdowns for maintenance and expansion. Lower M&I demands also led to lower production.



5.7. Total Recycled Water

Recycled water is wastewater that has been treated so that it can be beneficially used for a variety of purposes ranging from landscape irrigation to groundwater recharge. Recycled water use categories include M&I and agriculture, groundwater recharge, and seawater barrier.

Overall, the 2015 IRP forecast for recycled water was close to actuals between 2015 and 2017. Lower retail M&I demand and an overestimated recycled water need for seawater barrier in 2018 and 2019 resulted in the difference between actuals and the 2015 IRP forecast for total recycled water as shown in the figure below. Please see section 5.7.1 Recycled Water for M&I and Agriculture, section 5.7.2 Recycled Water for Replenishment, and section 5.7.3 Recycled Water for Seawater Barrier for detailed discussion.



5.7.1. Recycled Water for M&I and Agriculture

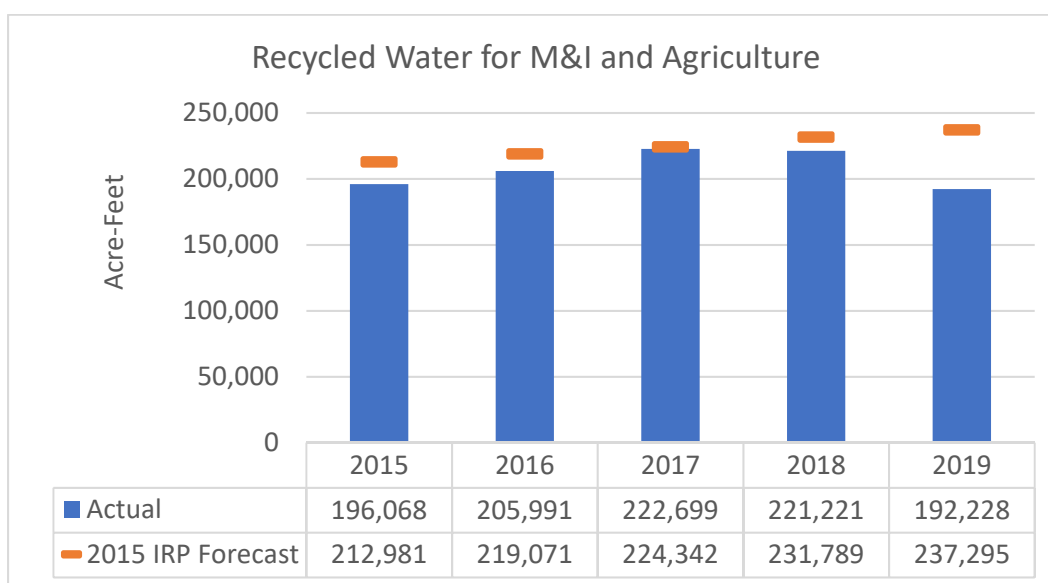
Recycled water for M&I and agriculture is considered non-potable reuse or non-consumptive use for landscape irrigation, industrial and agriculture uses.

2015 IRP Forecast Input and Assumptions

The 2015 IRP forecast considered existing and under construction projects. A complete list of projects can be found in the 2015 IRP Update Report, Appendix 5.

2015 – 2019 Data and Observation

Recycled water used for landscape and agricultural irrigation can be affected by hydrologic conditions. The drop in actuals for 2019 shown in the figure below is due in part to wet hydrologic conditions and reduced irrigation demand. There were no known issues affecting production during these years.



5.7.2. Recycled Water for Replenishment

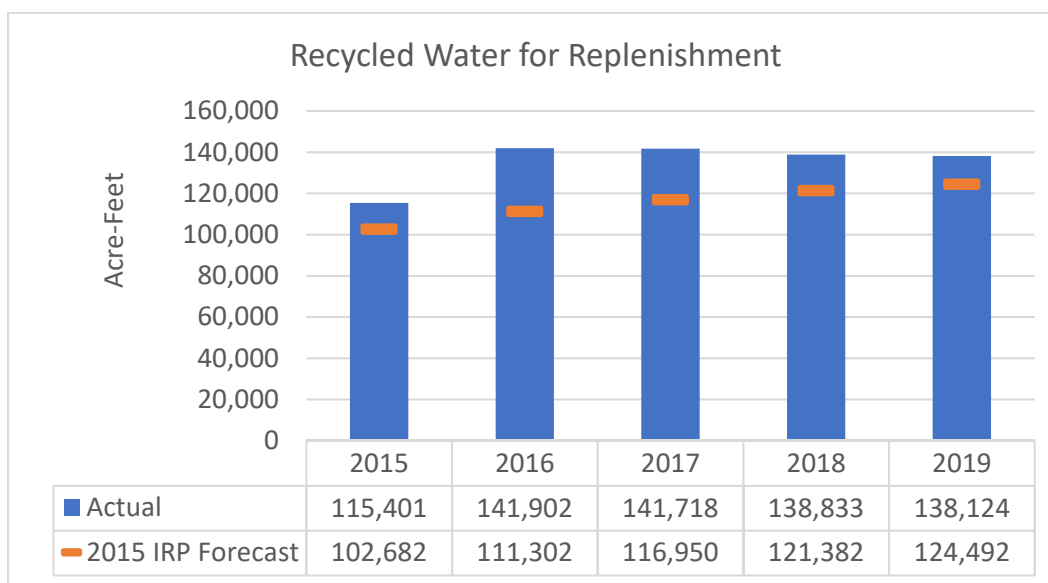
Recycled water for replenishment is indirect potable reuse for groundwater recharge.

2015 IRP Forecast Input and Assumptions

The 2015 IRP forecast considered existing and under construction projects. A complete list of projects can be found in the 2015 IRP Update Report, Appendix 5.

2015 – 2019 Data and Observation

As shown in the figure below, actuals exceeded the 2015 IRP forecast. This is due in part to Metropolitan’s underestimation of Orange County Water District’s Groundwater Replenishment System (GWRS) Phase 2 production for groundwater recharge. Modeling assumptions regarding the production of GWRS Phase 2 were split between replenishment and seawater barrier were incorrect.



5.7.3. Recycled Water for Seawater Barrier

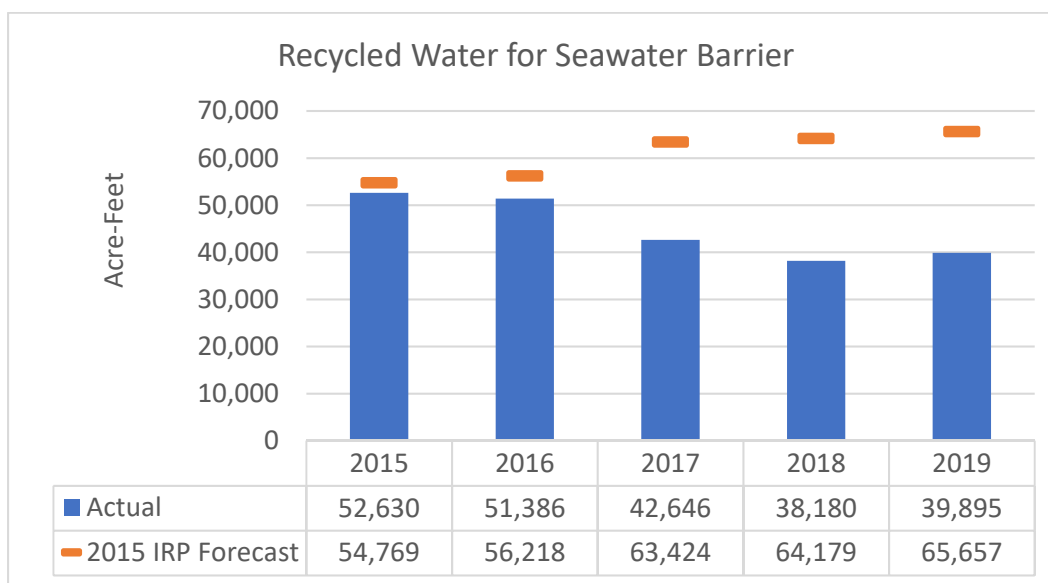
Recycled water for seawater barrier is indirect potable reuse.

2015 IRP Forecast Input and Assumptions

The 2015 IRP forecast considered existing and under construction projects. A complete list of projects can be found in the 2015 IRP Update Report, Appendix 5.

2015 – 2019 Data and Observation

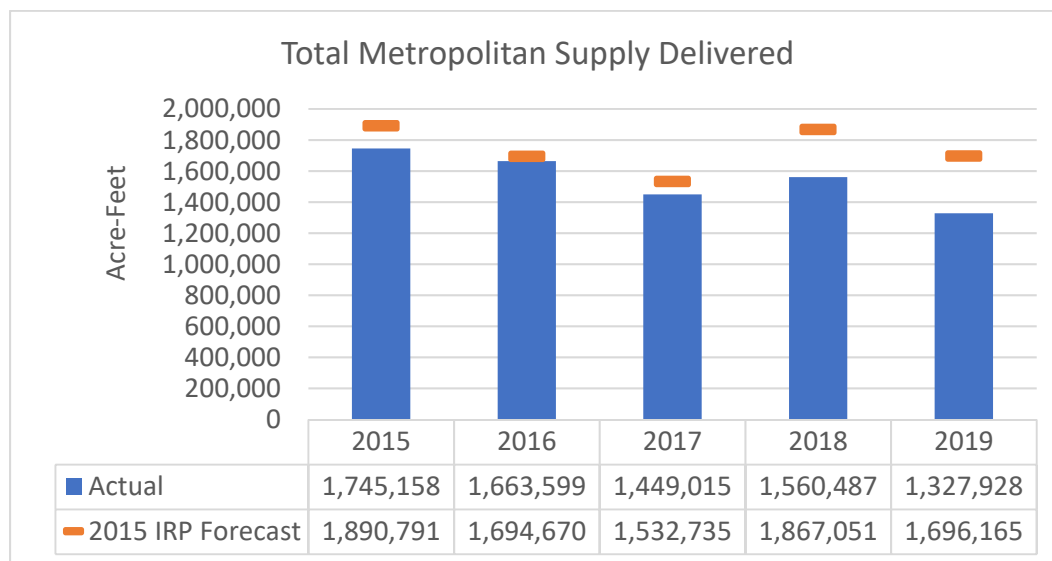
Overall, the 2015 IRP forecast exceeded actuals as shown in the figure below. Metropolitan overestimated the GWRS Phase 2 production for seawater barrier, resulting in roughly a 15,000 acre-foot difference between actuals and forecasted in 2017-2019. Other agencies have experienced source water shortages and operational issues that limited production.



6. TOTAL METROPOLITAN SUPPLY DELIVERED

Imported supply from Metropolitan serves as an additional source of supply to its 26 member agencies, and as a primary source of supply for some of those agencies. When local supplies are not enough to meet demand, member agencies purchase Metropolitan water to meet their remaining needs. The amount varies among member agencies. Metropolitan uses its Sales Model to determine demand for imported supply. The Sales Model is a mass-balancing model that calculates the difference between demand forecast and local supply projections to determine demand on Metropolitan's water supply.

Actual Metropolitan delivery is the sum of Metropolitan water delivered for consumptive use, seawater barrier, and replenishment as shown in the following sections. Overall, the 2015 IRP forecast overestimated total supply delivered as shown in the figure below and discussed in the following subsections.



6.1. Metropolitan Consumptive Use Delivered

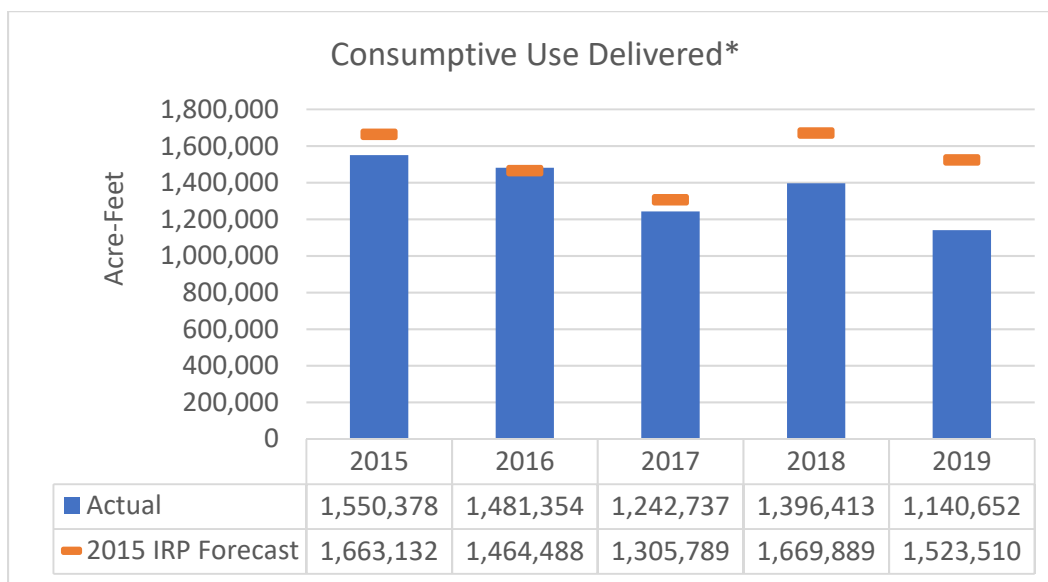
Metropolitan's supplies that are used to meet retail M&I demand.

2015 IRP Forecast Input and Assumptions

Metropolitan consumptive use delivery goes to meet the remaining M&I demand after its is met by local supply.

2015 – 2019 Data and Observation

Consumptive use delivery in 2017-2019 was lower than the 2015 IRP forecast as shown in the figure below. Contributing factors include above normal precipitation locally and the assumption that retail M&I demand would rebound after the drought.



* Does not include replenishment in-lieu delivery.

6.2. Metropolitan Seawater Barrier Delivered

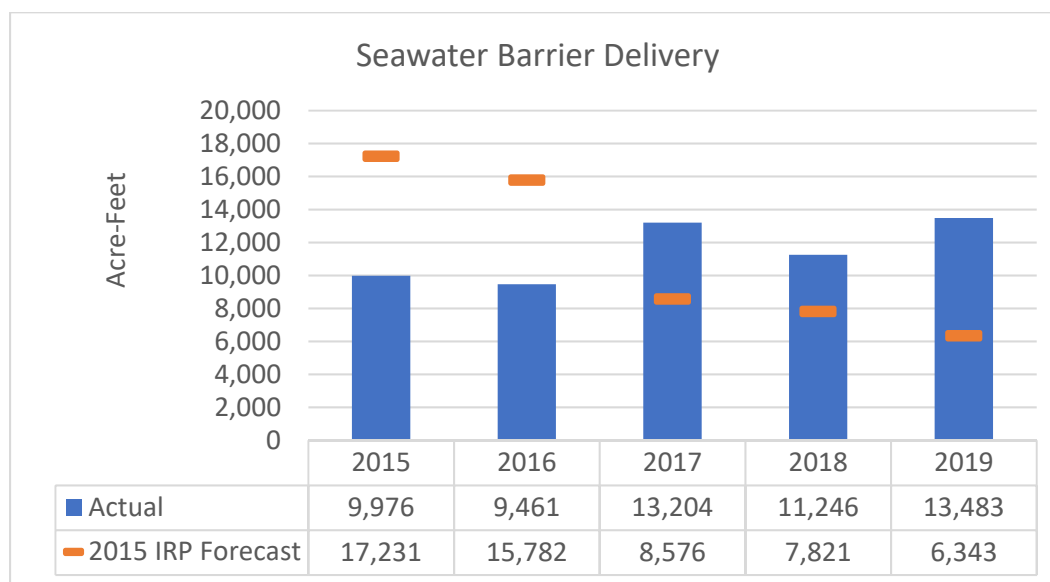
Seawater barrier supply provided by Metropolitan is used in conjunction with locally produced recycled water to meet blend requirements and/or to make up for loss of recycled water production.

2015 IRP Forecast Input and Assumptions

The long-term goal for seawater barrier supply is to be 100 percent recycled water. The 2015 IRP forecast assumed lower dependence on imported water for seawater barrier. The 2015 IRP forecast for total seawater barrier demand was based on 72,000 acre-feet per year (see section 4.3 Seawater Barrier Demand). The demand is met by recycled water first and the balance is met by Metropolitan seawater barrier delivery.

2015 – 2019 Data and Observation

The 2015 IRP forecast over projected seawater barrier demand resulting in lower than projected delivery of imported water in 2015 and 2016. Fluctuation in recycled water production due to source water shortage and operational issues resulted in higher delivery of imported water for 2017 through 2019.



6.3. Metropolitan Replenishment Delivered

Metropolitan replenishment deliveries go to replenish local groundwater basins and reservoirs.

2015 IRP Forecast Input and Assumptions

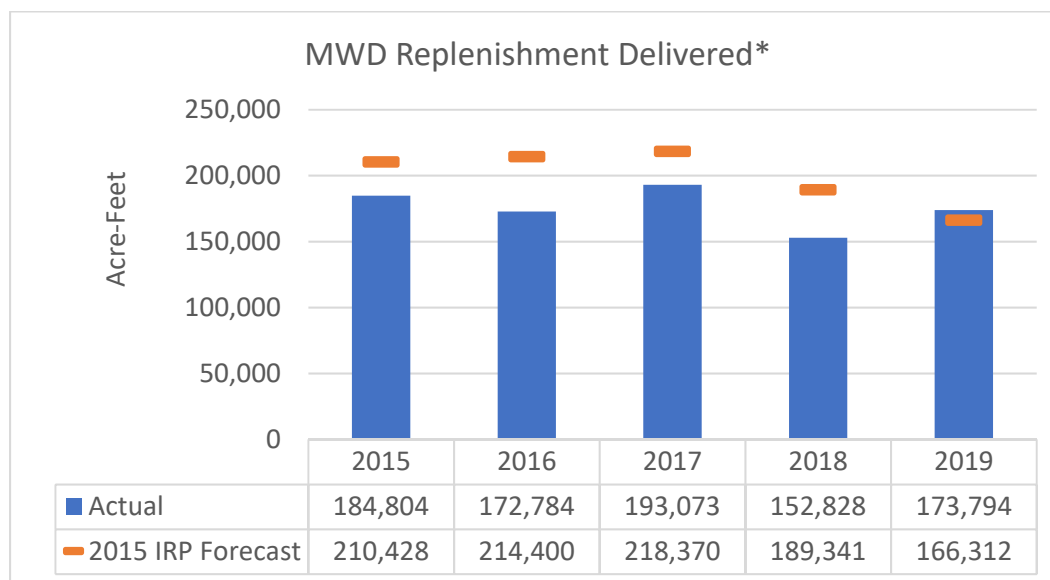
Member agencies and groundwater management agencies determine the amount of imported water needed to maintain their respective basin/reservoir.

The 2015 IRP forecast included additional water to replenish basins from the 2011-15 drought. The following replenishment needs by agencies are in addition to water needed to make up for the 2011-15 drought:

- CBMWD - 21,000 acre-feet for replenishment based upon pre-adjudication rule and 23,000 acre-feet make up water for converting carryover water into storage
- MWDOC – 65,000 acre-feet per year over 10 years
- USGVMWD - 34,000 acre-feet to maintain operating safe yield and an additional 8,000 acre-feet for resource development assessment (pre-purchase water every year to sustain a higher basin level)
- SDCWA - Water to fill San Vicente Dam Expansion, 160,000 acre-feet taken between 2013 and 2018

2015 – 2019 Data and Observation

The decline in the 2015 IRP forecast for 2018 and 2019 shown in the figure below reflects the completion of deliveries for SDCWA.



* Actuals include replenishment in-lieu delivery.

7. IMPORTED SUPPLY

Imported supplies serve not only as supplies for Metropolitan's member agencies, but also as the primary source of water delivered to storage. Storage reserves are essential to ensuring reliability for the region, and for guarding against risk and uncertainty.

7.1. State Water Project Supply

Much of the State Water Project (SWP) water supply passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR. More than two-thirds of California's residents obtain some of their drinking water from the Bay-Delta. Metropolitan participates in the SWP through responsibility for costs of the SWP in exchange for delivery of water conserved and stored by the SWP, an allocated portion of that total supply (1,911,500 AF), and other participation rights.

2015 IRP Forecast Input and Assumptions

The SWP forecast is significantly affected by hydrologic conditions and regulatory constraints. The forecasts of SWP supplies used in the 2015 IRP Update analyses include a full range of 91 different weather and hydrologic impacts taken from a sequential historical sample from 1922-2012. In addition, climate change impacts were also included in the forecasts from 2020 through 2040.

The long-term trend has been toward increased environmental regulation and reduced supply. The 2015 IRP Update targets anticipate pumping and export restrictions to become more restrictive in 2020, consistent with the scheduled timetable for review of the biological opinions for key fisheries in the Sacramento-San Joaquin Delta.

The 2015 IRP Update projection included the preferred alternative identified in the California WaterFix that was expected to provide more flexible water diversions through improved conveyance and operations. The conveyance and diversion facilities would allow for increased water reliability and a more permanent solution for flow-based environmental standards. Based on modeling done for the California WaterFix, it was estimated that the goal for SWP supplies in the IRP will result in about 980,000 acre-feet on average of SWP supplies in 2020 and 1.2 million acre-feet starting in 2030 on average when a long-term Delta solution is estimated to be in place.

2015 – 2019 Data and Observation

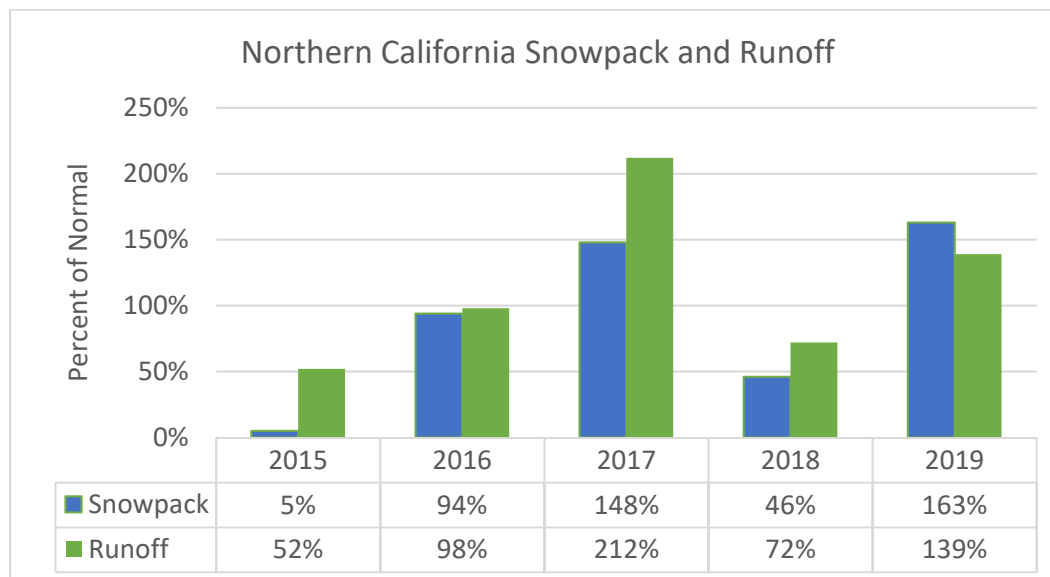
Following consecutive dry years, Northern California hydrologic conditions improved with near-normal snowpack in 2016 and supported a SWP Table A Allocation of 60 percent. Record hydrologic conditions in Northern California supported an 85 percent SWP allocation in calendar year 2017, the highest since 2006. The Northern Sierra 8-Station Index reached 94.7 inches in April 2017, breaking its previous record set in 1983. Additionally, the northern California snowpack peaked at 158 percent of the seasonal peak average in 2017.

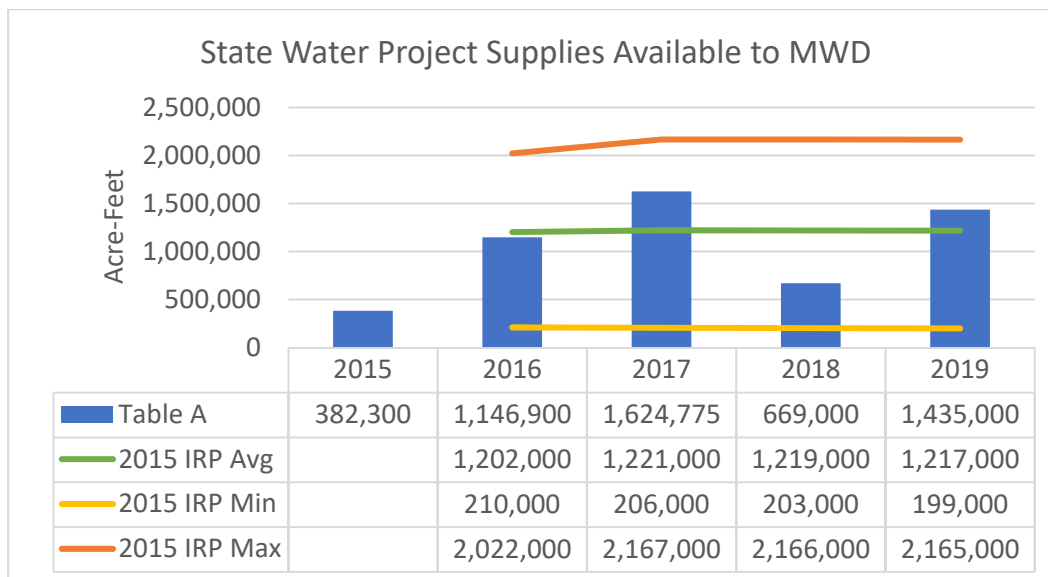
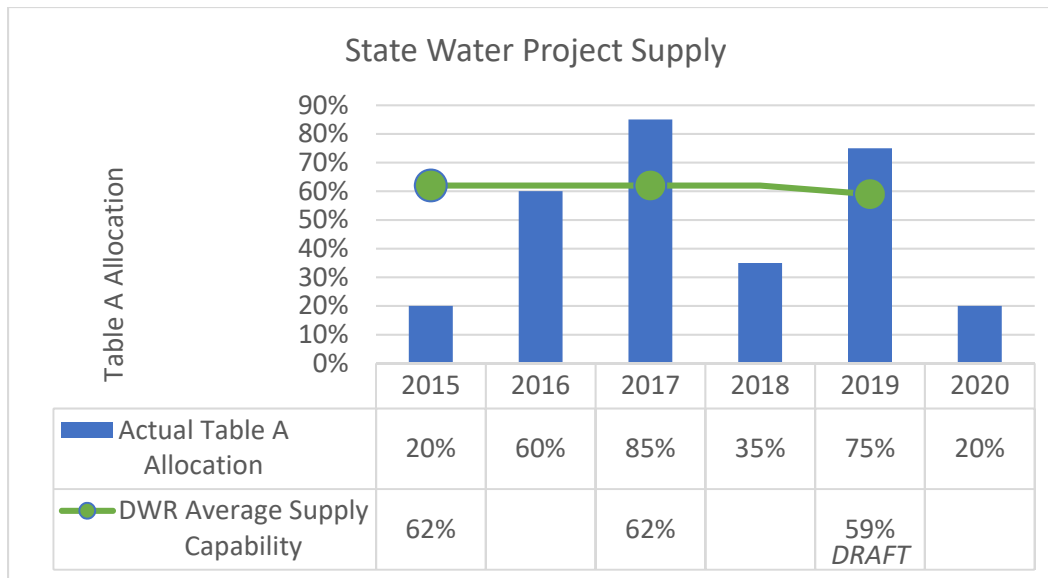
Following record breaking precipitation in water year 2017, northern California experienced below-normal conditions in water year 2018 with a below-normal runoff projection. Snow accumulation measured 46 percent of the seasonal peak average in 2018. The State Water Project Table A allocation to the State Water Contractors for calendar year 2018 was 35 percent of contracted amounts.

Hydrologic conditions improved greatly in northern California with snowpack measured at 163 percent of normal. The State Water Project Table A allocation to the State Water Contractors for calendar year 2019 was 75 percent of contracted amounts.

As described, the SWP supply is highly variable and dependent on hydrologic conditions. Overall, SWP supplies are more reliable than the 2015 IRP forecast. The long-term average SWP supply projection published in DWR's 2017 SWP Capability Report and the draft long-term average projection in the 2019 report (final expected in July 2020) does not show the level of degradation assumed in the 2015 IRP forecast.

Since the 2015 IRP Update, there has been significant change in policy direction with regards to the previously proposed two-tunnel California WaterFix. Although observed SWP supplies in the short-term through 2019 were unaffected, the modified approach to a potential Bay-Delta conveyance solution represents a departure from the 2015 IRP Update's long-term assumptions. Since Governor Newsom took office in 2019, he supported a single-tunnel configuration for new Bay-Delta conveyance instead of the two-tunnel California WaterFix and issued an executive order directing state agencies to inventory and assess the current planning for modernizing conveyance through the Bay-Delta with a new single tunnel project. DWR has since withdrawn approval of the California WaterFix project and decertified the EIR and is pursuing a new environmental review and planning process for a single tunnel project to modernize the State Water Project's Bay-Delta conveyance.





7.2. Colorado River Aqueduct Supply

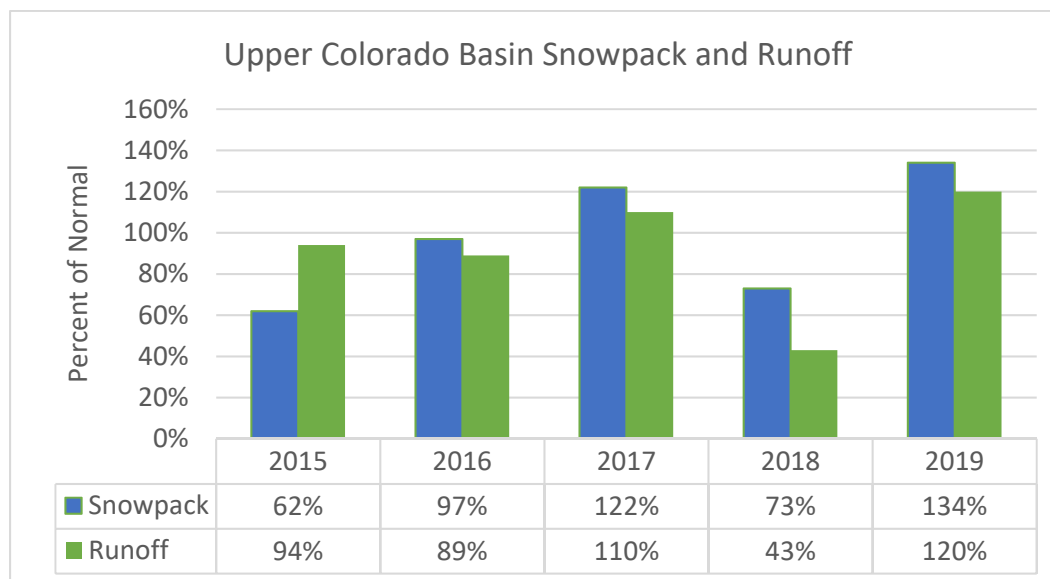
The Colorado River Aqueduct (CRA) delivers Colorado River water to Southern California. In addition to its Fourth and Fifth Priority entitlements from the Colorado River, Metropolitan has access to several other supply and conservation programs for Colorado River water. Programs such as the IID/Metropolitan Conservation Program provide supplies in all years, regardless of hydrologic conditions, and are considered base supply programs. Other programs such as the PVID program and Intentionally Created Surplus provide flexibility in different year types. These flexible programs work in conjunction with the base supply programs to manage water into storage in wet years and provide additional supply in dry years.

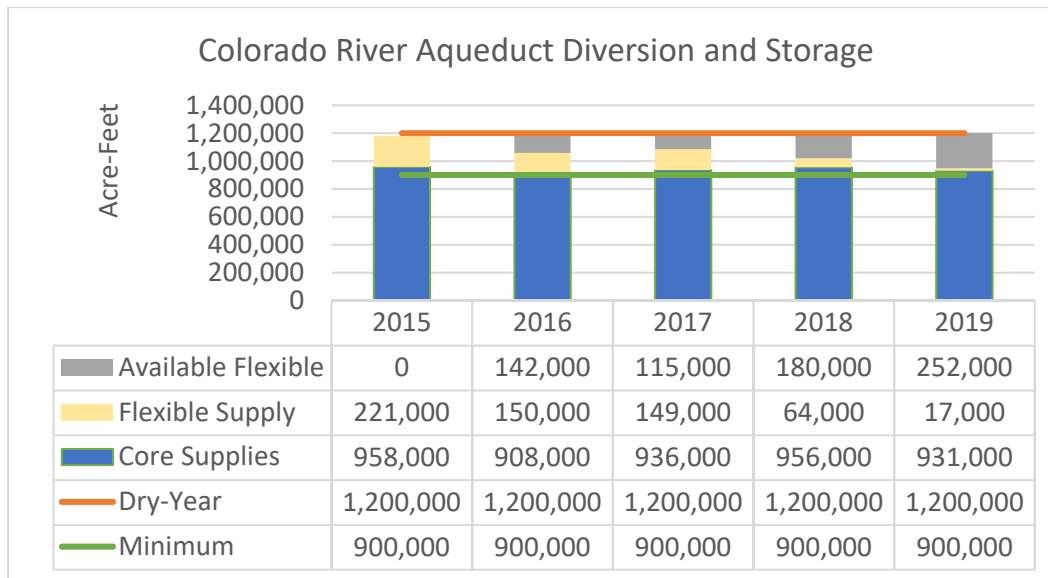
2015 IRP Forecast Input and Assumptions

The 2015 IRP Update calls for ensuring that a minimum supply target of 900,000 acre-feet is available in all years and to be able to ramp up diversions to a dry-year target of 1.2 million acre-feet.

2015 – 2019 Data and Observation

As shown in the figures below, Metropolitan was able to meet the minimum target in 2015 through 2019. In 2015, with a 20% SWP Table A Allocation, Metropolitan required additional supplies beyond the minimum target and was able to achieve its dry-year target diversion. Although not necessary in 2016-2019, Metropolitan had sufficient supplies available to meet its dry-year target diversion through its water stored in Lake Mead and other flexible supply programs.



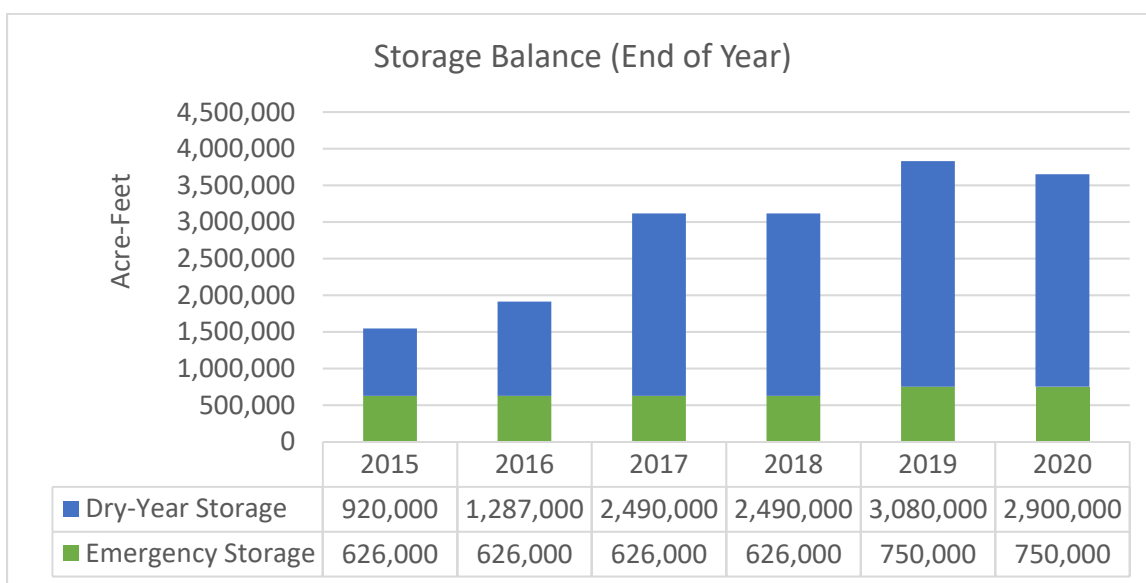


7.3. Storage Balance

Metropolitan has developed a large storage portfolio that includes both dry-year and emergency storage capacity for the benefit of the region.

Metropolitan's end of year storage from 2015 through 2020 is shown in the figure below. At the end of 2019, Metropolitan's dry-year storage reserves are estimated to be 3.1 million acre-feet, the highest dry-year storage balance in Metropolitan's history.

Metropolitan re-evaluated its emergency storage need in 2019. To better prepare for a major seismic event that could damage all aqueducts that import water into Southern California, Metropolitan increased its emergency storage level from 630,000 acre-feet to 750,000 acre-feet.





INFORMATION ITEM

August 5, 2020

TO: Board of Directors

FROM: Robert Hunter, General Manager

Staff Contact: Harvey De La Torre
Melissa Baum-Haley

**SUBJECT: METROPOLITAN'S DEMAND MANAGEMENT PROGRAM FINANCIAL
AND POLICY ISSUES**

STAFF RECOMMENDATION

Staff recommends the Board of Directors receive and file this information.

SUMMARY

In September, Metropolitan staff will bring forward an action item to the Finance & Insurance Committee that seeks policy direction from the Metropolitan Board on to how to proceed with future Demand Management program expenditures. In particular this item will consider future Local Resource Program (LRP) agreements, in light of the current suspension of the Water Stewardship Rate cost-recovery method. This item will be discussed in tandem with the Board's direction for Metropolitan staff to return with a report on COVID-19 impacts and to consider cost containment as a result of the pandemic.

REPORT

Background

In December 2019, the Metropolitan Board voted to discontinue the collection of the Water Stewardship Rate (WSR) as part of in the upcoming 2021 and 2022 rates and charges The program will use program reserves to cover the costs of the Demand Management program for the next two years until a new funding mechanism is in place. Metropolitan staff was directed to bring forth any proposed LRP project agreements to the Board for consideration on a case-by-case basis.

The determination to utilize the program reserves to fund demand management was in response to Board's delay in the selection of an alternative rate-design for the WSR to

Budgeted (Y/N): N/A	Budgeted amount: None	Core <u>X</u>	Choice <u> </u>
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			

collect revenues. The program reserves were estimated to cover current programs expenditures for approximately two years. It should be noted that since 2003, the WSR has funded Metropolitan's demand management programs, which include all water conservation device rebates, turf removal rebates, conservation advertisements, and incentive payments for LRP projects.

Since these Board actions in December, the world was struck by the COVID-19 pandemic. Metropolitan began taking action to respond to the pandemic in mid-March, less than one month from adoption of its Biennial Budget. Metropolitan staff rapidly developed a revised budget proposal that reduced spending on staffing, froze discretionary travel, suspended Board inspection trips, deferred equipment purchases, reduced capital projects, and other cost containment actions. The proposed overall rate increases for 2021 and 2022 were reduced from 5% per year to 3% in 2021 and 4% in 2022. The Metropolitan Board adopted the revised budget with the reduced rate increases, and directed staff to continue to look for further cost containment opportunities, and bring back a report to the Board for consideration at the September 2020 Board meeting. The full extent of the economic impacts of the pandemic to the local economy, Metropolitan, and its member agencies are not yet fully known.

In response to the Metropolitan's Board request to be more financial prudent due to the economic impacts from COVID-19, Metropolitan staff presented an action item (Attached) in June that sought to reaffirm the Board policy direction from its December 2019 actions. This staff memo called for:

1. Confirmation of the board-adopted goal of 170,000 AFY for LRP projects and direct staff to continue bringing forward proposed LRP project agreements for action;
2. Direction to MET staff to continue funding demand management programs through program reserves;
3. Commitment for the completion of the IRP process, and make adjustments to LRP and other demand management programs as needed upon completion of the IRP, and
4. Direction staff to assist the Board in developing a replacement funding mechanism to the WSR for 2023 forward.

In a robust discussion by the Metropolitan Board, at the June Water Planning & Stewardship Committee, the committee members unanimously voted to refer this action item to the September Finance & Insurance Committee. It was concluded that the Demand Management issues raised were not concerning the merits of the program, but rather how the program should be funded moving forward. In fact, the majority of the Board praised the Demand Management programs and acknowledge the LRP ensured Metropolitan's local supply reliability these past decades. Thus, the Finance & Insurance Committee will discuss the policy and financial issues in association with the Demand Management Program, as well as how to proceed with developing a new funding mechanism for January 2023 and beyond.

Demand Management Program Policy & Financial Issues

During the Water Planning & Stewardship Committee discussion a number of policy and financial issues were raised by the Board and we anticipate these issues will be raised again in September:

- ***How does Metropolitan provide its Member Agencies with a secure long-term funding source (e.g., LRP incentive payments for up to 25 years), while Metropolitan does not have a secure funding-collection mechanism?***
 - This would suggest that the Metropolitan Board should confirm that they are going to develop of a replacement funding mechanism by January 2023, because existing program reserves are only sufficient for this biennium.
 - Should the financial issues be resolved prior to considering future LRP agreements?
 - This may require the initial financial discussions to begin prior to the completion of the 2020 IRP, which Metropolitan has stated will commence this fall.
- ***With the unknown long-term financial impacts of COVID-19, should the Board continue to direct staff to continue bringing forward proposed LRP project agreements for action?***
 - In July 2020, two project applications were approved by the Metropolitan Board. These two projects will obligate Metropolitan to eventually pay up to \$115 million in incentive payments over the term of the contracts.
 - There are also four additional project applications currently in the review process that could be scheduled for future board consideration. These four applications could result in an additional \$24.5 million per year over the next 25 years for a total of \$612 million in incentive obligations.¹
- ***Should the results of the 2020 IRP gap analyses change or modify the LRP goal?***
 - Metropolitan staff currently estimates that total LRP incentive payments will need to increase by \$75 million per year to support the goal of the current 170,000 AFY.
 - Since approving this goal in October 2018, the Board has authorized eight new LRP project agreements for a total of 63,000 AFY, leaving 107,000 AFY remaining to achieve that goal.
- ***Does the Board need to acknowledge that a restructuring of the LRP and other Demand Management programs may be needed as a result of the 2020 IRP gap analyses or for other reasons?***
 - MWDOC staff does not anticipated that the completion of the 2020 IRP will change the merits of the LRP and other Demand Management programs; rather, it may offer the opportunity to make program refinements, such as the level of activity Metropolitan may provide.
- ***Should the Board continue approving LRP agreements prior to the completion of the 2020 IRP gap analysis and while a funding mechanism not yet established?***
 - The 2020 IRP gap analyses will provide supporting evidence for a greater or lesser need of developing new local resources during the 25 year planning horizon.

¹ Assuming the maximum exposure of \$340 AFY over a 25 year term.

Attachment: (1) Metropolitan Board Letter Item 8-1 (July 14, 2020)
(2) Presentation on Metropolitan Demand Management Program
Financial and Policy Issues



- Board of Directors
Water Planning and Stewardship Committee

7/14/2020 Board Meeting

8-1

Subject

Consider implications of board action to suspend collection of the Water Stewardship Rate and impacts of the COVID-19 pandemic on Metropolitan's budget and rates, and confirm Metropolitan's commitment to demand management programs and the Local Resources Program goal; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA

Executive Summary

In December 2019, Metropolitan's Board decided to suspend collection of its Water Stewardship Rate (WSR) for 2021 and 2022, and to fund demand management from program reserves in fiscal years 2020/21 and 2021/22, with the Board considering new Local Resources Program (LRP) agreements during this period on a case-by-case basis.

Currently, several LRP project applications are moving forward for potential board approval. Staff is looking for policy direction from the Board on how to process these program applications given the board direction on cost containment during the pandemic and the earlier suspension of any cost-recovery method to fund demand management.

Details

Background

In October 2018, the Board affirmed its longstanding commitment to diversifying water supplies and support of local resources by increasing the goal of the LRP to 170,000 acre-feet per year (AFY). Since approving this revised goal, the Board has authorized six new LRP project agreements for a total of 47,000 AFY. This leaves 123,000 AFY remaining to meet the LRP goal. Staff currently estimates that total LRP incentive payments will need to increase by \$75 million per year to support this goal.

Since 2003, the WSR has funded Metropolitan's demand management programs, including conservation device rebates, turf removal, advertising to promote conservation, and incentive payments for LRP projects. In December 2019, the Board considered alternatives to the WSR, but declined at that time to select an alternative rate design to collect revenues to fund demand management.

In December 2019, the Board authorized staff to use program reserve funds to fund demand management and to bring forward proposed LRP project agreements to the Board for consideration on a case-by-case basis. The Board expected during this period to review the goals of Metropolitan's demand management programs through the Integrated Resources Plan (IRP) process and to subsequently adopt an alternative to the WSR to collect funding for such programs. Additionally, the Board approved an LRP agreement for the City of San Diego's PureWater project but has not considered any further LRP projects.

Since these Board actions in December, the world was struck by the COVID-19 pandemic. Metropolitan began taking action to respond to the pandemic in mid-March, less than one month from adoption of its two-year budget. Staff rapidly developed a revised budget proposal that reduced spending on staffing, froze discretionary travel, suspended board inspection trips, deferred equipment purchases, reduced capital projects, and other cost containment actions. The proposed overall rate increases for 2021 and 2022 were reduced from 5 percent per year to 3 percent in 2021 and 4 percent in 2022. The Board adopted the revised budget with the reduced rate increases

and directed staff to continue to look for further cost containment opportunities, review COVID-19 impacts on member agencies, and bring back a report to the Board for consideration at the September 2020 Board meeting. While the full extent of the economic impacts of the pandemic to the local economy, Metropolitan, and its member agencies are not yet fully known, it is clear the impacts will be significant and far-reaching. Staff is currently in the process of developing a report on possible further cost containment actions, and we are gathering data on revenue and cost impacts to the member agencies.

In light of the crisis brought on by the pandemic and the direction from the Board to review the budget for possible cost savings, staff is seeking confirmation from the Board of its direction to continue bringing proposed LRP project agreements to the Board for approval. Two project applications have completed the staff review process and are ready for board consideration. These two projects would produce more than 16,000 AFY in combined new water yield and obligate Metropolitan to pay up to \$115 million in incentive payments over the term of the contracts. There are also four additional project applications currently in the review process that could be scheduled for future board consideration.

Staff believes that the LRP and other Metropolitan demand management programs have greatly increased Southern California's ability to manage long-term drought and climate change and are essential to ensuring Metropolitan's resiliency. Demand management has reduced demand for imported supplies, which reduces the costs to build, expand, operate, and maintain transportation facilities. This has a regional benefit for all member agencies throughout Southern California. However, these programs are expensive and need a clearly identified funding source, which has not yet been developed and approved by the Board. Additionally, the scope and nature of these programs are currently under review in the IRP, and they may be adjusted.

One approach is for the Board to consider delaying approval of further LRP agreements until the IRP has been completed and a new method to fund demand management has been adopted. While there are legitimate policy reasons to defer action on LRP projects at this time, staff instead recommends that the Board confirm its commitment to the LRP and other demand management and continue on the course of completing the IRP update and developing a rate design to fund demand management. Local project development requires significant lead time, and existing program reserves are sufficient for this biennium. Staff believes that the IRP process should not halt project development every five years; the process can accommodate action on individual projects while broad program refinement is considered.

The same is true with developing a demand management cost-recovery method. Rate structures must be thoughtfully and carefully crafted. However, project development can continue as long as the Board is committed to moving forward to develop a rate design that will fund these projects on a long-term basis prior to the exhaustion of the current program reserves, providing Metropolitan with a funding mechanism to comply with the contractual obligations created by each LRP agreement.

Staff Recommendation

Staff recommends that the Board take the following actions: (1) confirm the board-adopted goal of 170,000 AFY for LRP projects and direct staff to continue bringing forward proposed LRP project agreements for action; (2) direct staff to continue funding demand management programs through program reserves; (3) commit to completion of the IRP process, and make adjustments to LRP and other demand management programs as needed upon completion of the IRP, and (4) direct staff to assist the Board in developing a replacement funding mechanism to the WSR for 2023 forward.

Policy

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 51356, the Board approved the interim LRP target to 170,000 acre-feet per year.

By Minute Item 51828, the Board directed staff to incorporate the use of the 2019/20 fiscal-year-end Water Stewardship Fund balance to fund all demand management costs in fiscal years 2020/21 and 2021/22; and to not incorporate the Water Stewardship Rate, or other rates or charges, to recover such costs in calendar years 2021 and 2022.

By Minute Item 51962, the Board approved the fiscal years 2020/21 and 2021/22 biennial budget, and calendar years 2021 and 2022 rates and charges, with direction to staff to revisit and consider by August 31, 2020 specified budget issues, and the Board's review by its September 2020 meeting of the budget and rates to consider impacts resulting from the COVID-19 crisis.

California Environmental Quality Act (CEQA)

CEQA determination for Options #1 and #2:

The proposed actions are not defined as a project under CEQA because they involve continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed actions are not subject to CEQA because they involve other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

Board Options

Option #1

(1) Confirm the board-adopted goal of 170,000 AFY for LRP projects and direct staff to continue bringing forward proposed LRP project agreements for action; (2) direct staff to continue funding demand management programs through program reserves; (3) commit to completion of the IRP process, and make adjustments to LRP and other demand management programs as needed upon completion of the IRP; and (4) direct staff to assist the Board in developing a replacement funding mechanism to the WSR for 2023 forward.

Fiscal Impact: No additional fiscal impact relative to the actions to confirm the existing LRP goal, continue funding demand management with program reserves, and commit to completing the IRP process, as these actions maintain the status quo. The fiscal impacts of future LRP agreements, any future adjustments to demand management programs, and adoption of an alternative to the Water Stewardship Rate will be determined at the time of those future actions.

Business Analysis: The recommended actions will provide staff with policy direction to continue progress towards meeting the LRP goal, administer the demand management programs, and assist the Board in completing the IRP process and approval of a replacement cost-recovery method for demand management.

Option #2



Direct staff on an alternative action plan for LRP projects and other demand management, pending a new rate design being established to recover demand management costs.

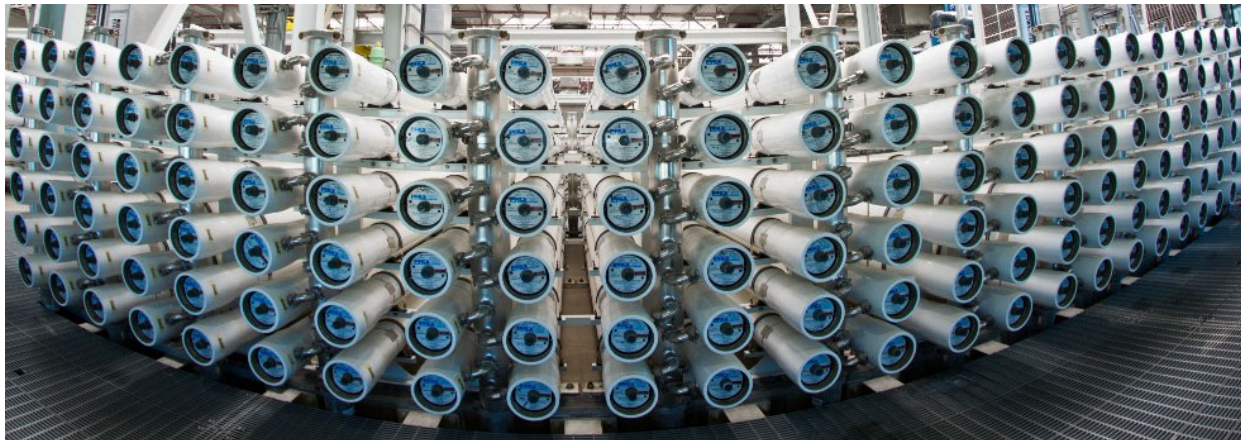
Fiscal Impact: To be determined based on board direction.

Business Analysis: To be determined based on board direction. However, approval of new LRP agreements without a commitment to approve an alternative cost-recovery method for demand management would incur financial obligations into the future without an identified revenue collection mechanism.

Staff Recommendation

Option #1

 Brad Coffey Manager, Water Resource Management	7/2/2020 Date
 Jeffrey Kightlinger General Manager	7/2/2020 Date



POLICY DISCUSSION: Metropolitan's Demand Management Program Financial and Policy Issues

August 5, 2020

Background

- ◆ In December 2019, the Metropolitan Board voted to:
 - ◆ Discontinue the collection of the Water Stewardship Rate (WSR) as part of in the upcoming 2021 and 2022 rates and charges
 - ◆ Use program reserves to cover the costs of the Demand Management program for the next two years until a new funding mechanism is in place
- ◆ In April 2020, as part of the budget adoption, the Metropolitan Board directed staff to:
 - ◆ Continue to look for further cost containment opportunities
 - ◆ Bring back a report to the Board for consideration in September



Purpose of Discussion

At June Water Planning & Stewardship Committee

- 💧 Metropolitan staff presented an action item to:
 - 🟢 Consider implications of Board action to suspend collection of the WSR
 - 🟢 Consider the impacts of the COVID-19 pandemic on Metropolitan's budget and rates
 - 🟢 Confirm Metropolitan's commitment to demand management programs and the Local Resources Program goal
- 🔥 The committee discussion focused not on the merits of Demand Management program, but rather how it should be funded moving forward
- 🔥 The majority of the Board praised the Demand Management programs and acknowledge the LRP ensured Metropolitan's local supply reliability



Purpose of Discussion

Will return to the September Finance and Insurance Committee

- 💧 MET staff will seeks policy direction from the Board on:
 - 🔥 How to proceed with future Demand Management program expenditures
 - 🔥 How to consider cost containment as a result of the pandemic
 - 🟢 In tandem with the discussion on COVID-19 financial impacts



Policy and Financial Issues Raised

- How does Metropolitan provide its Member Agencies with a secure long-term funding source (e.g., LRP incentive payments for up to 25 years), while Metropolitan does not have a secure funding-collection mechanism?
- With the unknown long-term financial impacts of COVID-19, should the Board continue to direct staff to continue bringing forward proposed LRP project agreements for action?
- Should the results of the 2020 IRP gap analyses change or modify the LRP goal?
- Does the Board need to acknowledge that a restructuring of the LRP and other Demand Management programs may be needed as a result of the 2020 IRP gap analyses or for other reasons?
- Should the Board continue approving LRP agreements prior to the completion of the 2020 IRP gap analysis and while a funding mechanism not yet established?



DISCUSSION





INFORMATION ITEM

August 5, 2020

TO: Board of Directors

FROM: Robert Hunter, General Manager

**SUBJECT: MWDOC MET DIRECTOR APPOINTMENT – REPORT FROM MET
DIRECTOR SELECTION COMMITTEE**

STAFF RECOMMENDATION

Staff recommends the Board of Directors: Receive report from the MET Director Selection Committee Chair, Director Dick, and discuss information as appropriate.

SUMMARY REPORT

As a result of the resignation of former Director Barbre from the MET Board (in May 2020), in June the MWDOC Board appointed Directors Dick and Finnegan to serve on the MET Director Selection Committee (with Director Dick serving as Chair).

The MET Director Selection Committee has met on a few occasions and would like to report its recommendations/findings to the MWDOC Board.

It is anticipated that the appointment of a new MET Director will take place on August 19, 2020 at the MWDOC Board meeting.

Budgeted (Y/N):	Budgeted amount:	Core ____	Choice ____
Action item amount:		Line item:	
Fiscal Impact (explain if unbudgeted):			



INFORMATION ITEM

August 5, 2020

TO: Board of Directors

FROM: Robert Hunter,
General Manager

Staff Contact: Melissa Baum-Haley

SUBJECT: DELTA CONVEYANCE PROJECT ACTIVITIES UPDATE

STAFF RECOMMENDATION

Staff recommends the Board of Directors receive and file the information presented.

REPORT

Delta Conveyance

On June 15, the California Department of Water Resources (DWR) submitted a revised permit application pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act (Section 404 permit application) to the U.S. Army Corps of Engineers (USACE) to request authorization for the proposed Delta Conveyance project activities in the waters of the United States. DWR is submitting the Section 404 permit application now in order to formally engage USACE in early coordination with DWR's California Environmental Quality Act process regarding environmental review under USACE's process for compliance with the National Environmental Policy Act, as well as Clean Water Act and Rivers and Harbors Act. The USACE permit process will not be concluded until National Environmental Policy Act and all other relevant environmental compliance efforts are complete.

The Department of Water Resources (DWR) has published a Scoping Summary Report for the proposed Delta Conveyance Project. This scoping report is a summary of the public scoping period that concluded in April. It includes all public comments received (links below). The information collected during scoping will be used to [help] inform the ongoing environmental analysis.

Budgeted (Y/N): N/A	Budgeted amount: None	Core <input checked="" type="checkbox"/> X	Choice <input type="checkbox"/>
Action item amount: N/A	Line item:		
Fiscal Impact (explain if unbudgeted):			

The Scoping Summary Report includes:

- Project overview
- Purpose of scoping
- Description of scoping activities, meetings, and notifications
- Summary of public comments received
- Copies of all public comments received, including public scoping meeting transcripts

The purpose of scoping is for DWR to gather feedback from the public and agencies on what to consider when preparing the proposed Delta Conveyance Project Environmental Impact Report. Specifically, DWR was seeking input on the range of project alternatives and potential environmental impacts to study further.

DWR will continue environmental review and analysis of the proposed Delta Conveyance Project, which is intended to maintain reliability of the state's water system in the decades to come.

For more information, below are the key Scoping Summary Report links:

- [Scoping Summary Report](#)
- [Appendices A – C: Notification and Meeting Materials](#)
- [Scoping Comment Index](#)
- [Appendix D: Scoping Comments Summary](#)

Joint Powers Authorities

To comply with public health recommendations regarding public meetings and social distancing efforts, the Delta Conveyance Design and Construction Authority's (DCA) regularly scheduled meeting on June 18 was held online via conference line and video. The DCA Board considered adoption of the budget for Fiscal Year 2020/21 and a resolution to adopt the Allowable Travel Expense Policy. The results of the Independent Technical Review Report of the Intakes were also presented. The June 18 Delta Conveyance Finance Authority Board Meeting was cancelled. The June 24 Stakeholder Engagement Committee (SEC) meeting focused on soils transportation and balance, a follow-up on the SEC comments and an update on the tribal outreach efforts by DWR.

Habitat Restoration

The Tule Red Tidal Restoration Project is a joint effort by the State and Federal Contractors Water Agency and DWR to open more than 400 acres of wetlands to daily tides in the southern Suisun Marsh to benefit native fish species. The project construction and levee breach were completed in fall 2019. In June, monitoring crews reported finding dozens of the state-listed juvenile longfin smelt inside and outside the 420-acre tidal wetland restoration site in Grizzly Bay. This is a promising start for the Tule Red project. The State Water Contractors Science Program is funding a study to continue to monitor and evaluate the effectiveness of the restoration.

Science Activities

Metropolitan staff participated in the Spring Run Steering Committee for the spring run chinook salmon population estimate workshop which will be held in September 2020. The impetus for this workshop is to produce a science/monitoring plan for spring run based on best available science. The workshop will review the “state of the science” for spring run and include sessions on life history, tools for identifying spring run (genetics, length at date, other probabilistic methods), existing monitoring, and approaches to develop a juvenile production estimate.

Metropolitan staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). The June 16 CAMT meeting included a brain-storming discussion of CSAMP priorities for 2021/22, a status update on the Interagency Ecological Program monitoring survey design review, and discussion of next steps for Delta Smelt Science Plan implementation. Metropolitan staff participated in a survey that will inform the development of the Coordinated Salmonid Science Plan (CSSP) for the Sacramento-San Joaquin Delta, an initiative of the CAMT Salmonid Scoping Team. The objective of the CSSP is to use the best available information to integrate and logically prioritize applied science, monitoring, and management activities in the Delta region dedicated to salmonid conservation and recovery for all runs of Chinook salmon and steelhead. This work differs from past efforts in its focus on integrative synthesis and a commitment to distill the diverse list of previously proposed activities into a set of clear, actionable priorities for decision-makers. The focus of the survey was to sort a list of activities that are to be prioritized. Preliminary results of the survey will be shared next month and included in a final report due at the end of the year.

Metropolitan staff continued to participate in forums to contribute to the development of up-to-date science and collaboration. In June, the State Water Contractors Board approved a contract for a new science study evaluating relative environmental risk of contaminants in the Delta to Delta smelt and Chinook salmon. Metropolitan staff is participating on the advisory committee for this study. In June, Metropolitan staff also participated in collaborative Delta science forums to provide input to workplans and developing studies, including the Delta Independent Science Board, the Delta Regional Monitoring Program, the Interagency Ecological Program project work teams and the Delta Science Program Science Needs Assessment Workshop.

Delta Flood Emergency Management Plan

In May, the Sacramento Joint Flood Operations Center conducted a flood emergency exercise addressing flood effects to San Joaquin River levees both within and outside the Delta region. Flood flows and response measures of the exercise provided informative data beneficial to development of the emergency freshwater pathway. The exercise included the use of a Flood Emergency Response Information Exchange online data sharing system developed by DWR to improve flood emergency preparedness, response and recovery through a real-time GIS interface. In April, DWR awarded a contract to Nucor Skyline for the acquisition of large pipe pile and sheet pile used in combination for closure of deep levee breaches for development of the freshwater pathway.



DISCUSSION ITEM

August 5, 2020

TO: Board of Directors

**FROM: Robert Hunter,
General Manager**

Staff Contact: Karl Seckel
Harvey De La Torre
Melissa Baum-Haley

**SUBJECT: METROPOLITAN WATER DISTRICT (MET) ITEMS CRITICAL TO
ORANGE COUNTY**

STAFF RECOMMENDATION

Staff recommends the Board of Directors to review and discuss this information.

DETAILED REPORT

This report provides a brief update on the current status of the following key MET issues that may affect Orange County:

- a) MET's Water Supply Conditions
- b) MET's Finance and Rate Issues
- c) Colorado River Issues
- d) Bay Delta/State Water Project Issues
- e) MET's Ocean Desalination Policy and Potential Participation in the Doheny and Huntington Beach Ocean (Poseidon) Desalination Projects
- f) South Orange County Projects

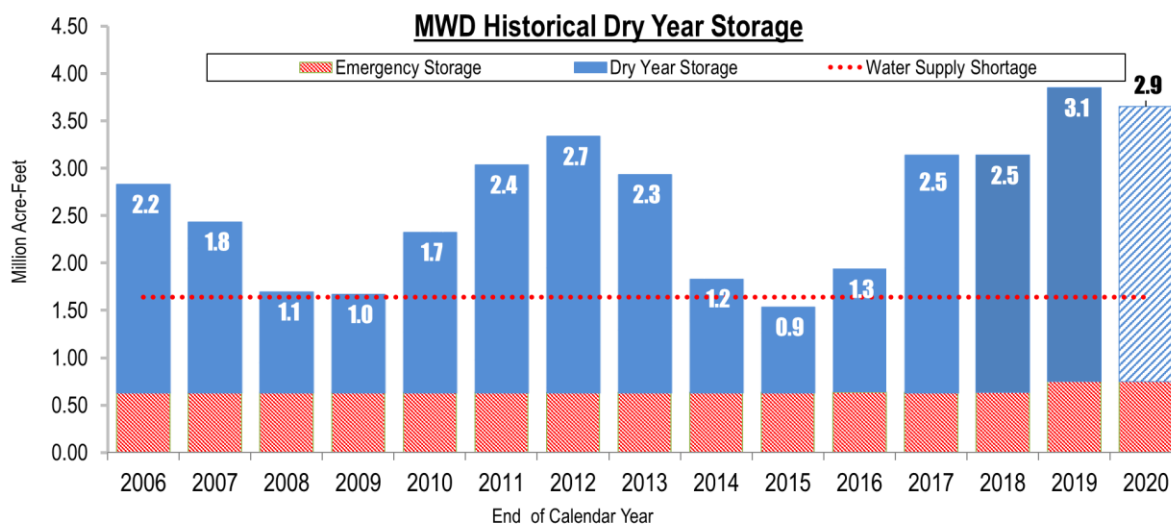
ISSUE BRIEF # A

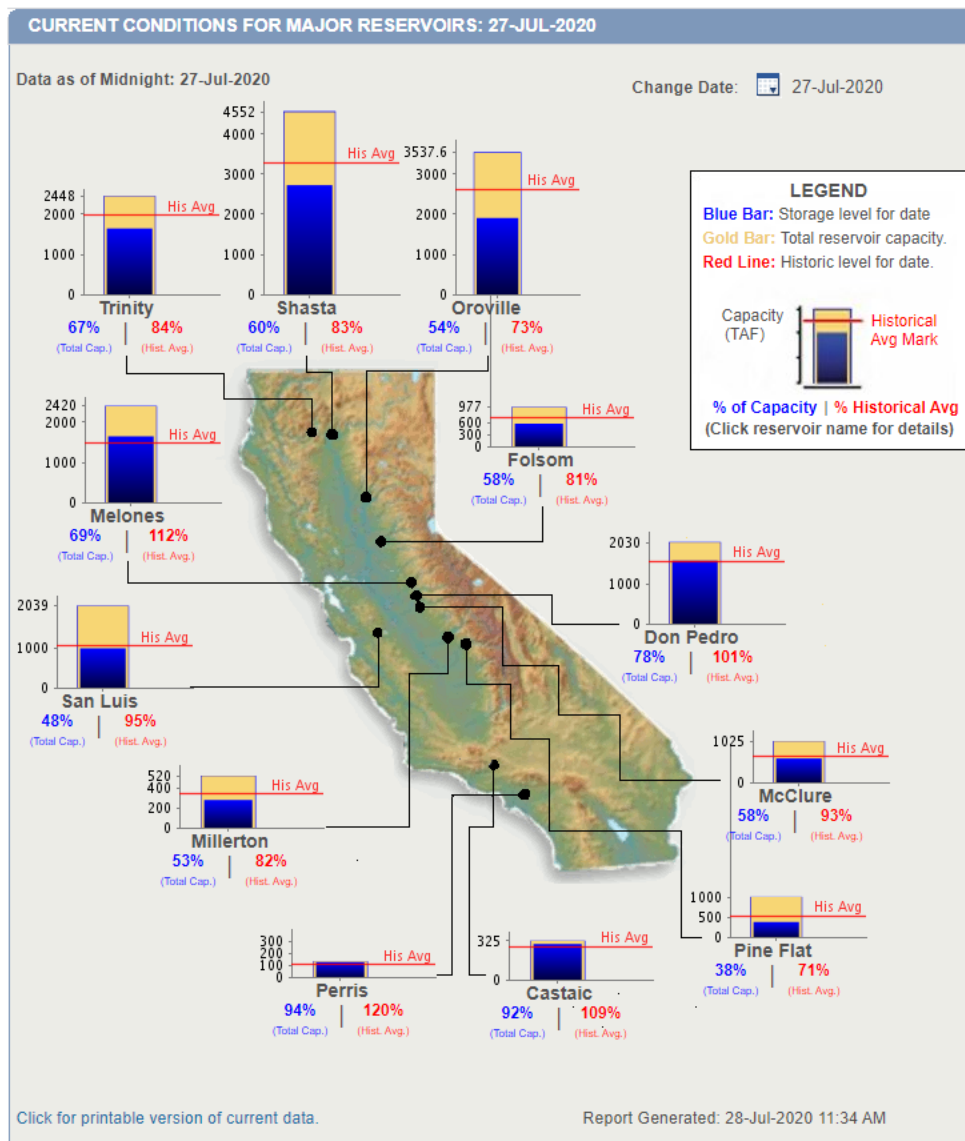
SUBJECT: MET's Water Supply Conditions

RECENT ACTIVITY

With estimated total demands and losses of 1.636 million acre-feet (MAF) and with a 20% SWP Table A Allocation, Metropolitan is projecting that demands will exceed supply levels in Calendar Year (CY) 2020. Based on this, estimated total dry-year storage for Metropolitan at the end of ***CY 2020 will go down to approximately 2.9 MAF.***

A projected dry-year storage supply of ***2.9 MAF will be the second highest amount for Metropolitan.*** A large factor in the increase in water storage is because ***water demands regionally have been at approximately 36-year lows.***

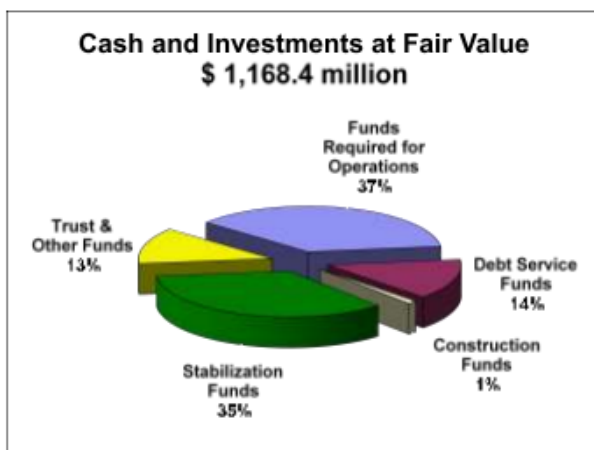
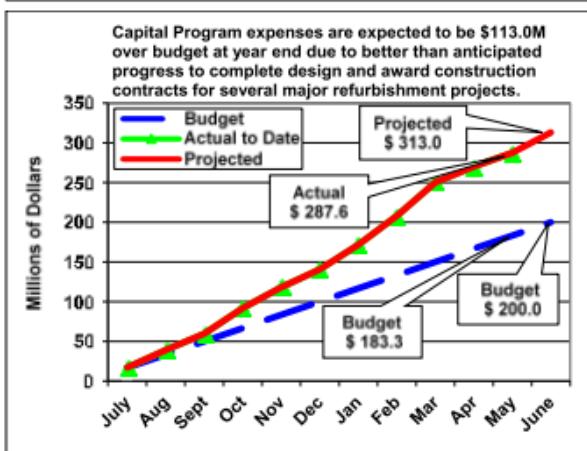
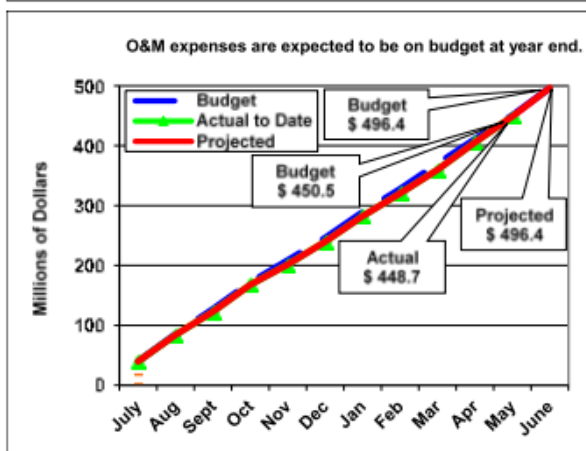
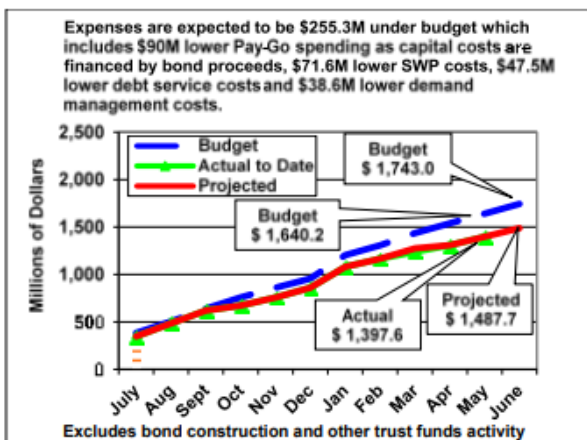
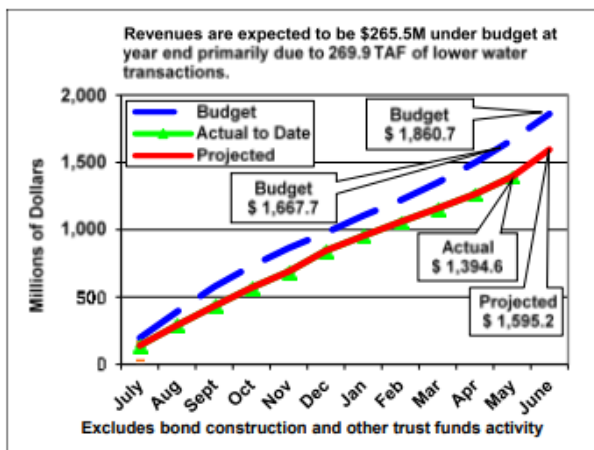




ISSUE BRIEF # B**SUBJECT: MET's Finance and Rate Issues****RECENT ACTIVITY**

Water transactions for May 2020 totaled 116.8 thousand acre-feet (TAF), which was 41.1 TAF lower than the budget of 157.9 TAF. This translates to \$102.1 million in revenues for May 2020. Year-to-date water transactions through May 2020 were 1.26 million acre-feet (MAF), which was 305.4 TAF lower than the budget of 1.57 MAF. Year to date revenues through May 2020 were \$1.07 billion, which were \$294.7 million lower than the budget of \$1.36 billion. As of May 31, 2020, the balance in Metropolitan's investment portfolio was \$1,168.4 million.

On May 20, 2020, Metropolitan remarketed three series of SIFMA Index Mode Bonds: \$80,000,000 of Water Revenue Bonds, 2017 Series C; \$95,630,000 of Water Revenue Refunding Bonds, 2017 Series D; and \$95,625,000 of Water Revenue Refunding Bonds, 2017 Series E. The three series of SIFMA Index Mode Bonds were remarketed at a rate equal to the weekly SIFMA Municipal Swap Index Rate, plus 25 basis points (0.25 percent). The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index Rate is a 7-day high-grade market index comprised of weekly-reset, tax-exempt Variable Rate Demand Obligations (VRDOs). On May 20, 2020, the effective SIFMA Index Rate was 0.16 percent. As of June 16, the rate was 0.11 percent.



Summary Financial Statistics

	Target	Year-End Projected
Fixed Charge Coverage	≥ 1.20 x	1.52 x
Revenue Bond Coverage	> 2.00 x	1.55 x
Revenue Bond Debt / Equity Ratio	< 100.0%	57.6%

Senior Lien Revenue Bond Credit Ratings

	Target	Current
- Moody's Investors Service	Aa2	Aa1
- Fitch Ratings	AA	AA+
- Standard & Poor's	AA	AAA

ISSUE BRIEF # C

SUBJECT: Colorado River Issues

RECENT ACTIVITY

Metropolitan Makes First Payment for Minute 323 Water Conservation Projects

In June, per the terms of a funding agreement to help implement Minute 323 to the International Water Treaty with Mexico, Metropolitan provided the Bureau of Reclamation (Reclamation) \$1.25 million to construct water conservation projects in Mexico. In addition to Metropolitan, Southern Nevada Water Authority, Central Arizona Water Conservation District, and Imperial Irrigation District are providing an equal amount of funding to develop the conservation projects, which include lining irrigation canals and other infrastructure improvements in Mexico. The 2020 funding amount is the first of three installments in which United States water agencies have agreed to fund a total of \$15 million for conservation projects by 2026 and will receive in exchange for their funding a total of 109,100 acre-feet of Intentionally Created Surplus (ICS) water in Lake Mead. Metropolitan will receive about 9,000 acre-feet of ICS water later this year in exchange for its 2020 funding amount.

Lake Powell Pipeline Draft Environmental Impact Statement

The Bureau of Reclamation (Reclamation) published the Draft Environmental Impact Statement (DEIS) for the Lake Powell Pipeline (LPP) for public comment. The State of Utah, through the Utah Board of Water Resources (UBWR), is proposing to construct a pipeline that would divert approximately 86,000 acre feet of water from Lake Powell near Glen Canyon Dam in Page, Arizona, to Sand Hollow Reservoir near St. George, Utah, for use in Washington County in Utah. The UBWR is proposing to build the LPP in order to bring a second source of water to Washington County in Utah to meet future water demands, diversify the regional water supply portfolio, and enhance the reliability of the water supply. Comments on the DEIS are due September 8, 2020.

The Colorado River Board of California (CRB) submitted a comment letter regarding the preparation of the DEIS for the LPP on January 10, 2020 and asked for analysis of potential impacts to water quality, protected species, and hydropower production. This comment letter also noted that the LPP proposes to move water from the Upper Basin to an area of Utah that is located in the Lower Basin, although the Colorado River Compact provides that water allocated to each Basin may only be beneficially used in that Basin. As such, the CRB noted that specific Congressional authorization of this project would be required for Utah to use a portion of its Upper Basin allocation in a Lower Basin location in Utah.

Additional information about the LPP is available at the link below:

- [Lake Powell Pipeline Draft Environmental Impact Statement](#)

Reclamation Begins 2020 Annual Operating Plan Consultation

Reclamation held the first of three annual consultation meetings regarding its Annual Operating Plan for Colorado River Reservoirs (AOP) for 2021. Each year Reclamation prepares an AOP that reports on operations of Colorado River Reservoirs during the past year, and projects operations and releases for the current year based on current and projected reservoir elevations and hydrologic conditions throughout the basin. The AOP provides Metropolitan with significant operational information regarding projected releases from Lake Powell to Lake Mead and whether the Lower Division States (California, Arizona and Nevada) will be at normal, surplus, or shortage conditions. Metropolitan uses information in the AOP to plan diversions, ICS creation and/or delivery, interstate banking determinations, and Drought Contingency Plan Contributions.

ISSUE BRIEF # D

SUBJECT: Bay Delta/State Water Project Issues

RECENT ACTIVITY

For information specifically relating to the Delta Conveyance Project (f.k.a. the California WaterFix) please, refer to the associated Board Item – Delta Conveyance Project Activities.

ISSUE BRIEF # E

SUBJECT: MET's Ocean Desalination Policy and Potential Participation in the Doheny and Huntington Beach Ocean (Poseidon) Desalination Projects

RECENT ACTIVITY

Doheny Desal

The details of this have been moved to briefing Issue F as it pertains only to South Orange County.

Poseidon Huntington Beach

The Santa Ana Regional Water Quality Control Board (SARWQCB) continues to work with Poseidon on renewal of the National Pollutant Discharge Elimination System (NPDES) Permit for the proposed HB Desalination Project.

The renewal of the NPDES permit for the proposed desalination facility requires a California Water Code section 13142.5(b) determination in accordance with the State's Ocean Plan (a.k.a. the Desalination Amendment). To make a consistency determination with the Desalination Amendment, the Regional Board is required to analyze the project using a two-step process:

1. Analyze separately as independent considerations, a range of feasible alternatives for the best available alternative to minimize intake and mortality of all forms of marine life:
 - a. Site
 - b. Design
 - c. Technology
 - d. Mitigation Measures
2. Then consider all four factors collectively and determine the best combination of feasible alternatives.

Regional Board staff reviewed hundreds of documents and input from both an independent reviewer and a neutral 3rd party reviewer to develop Tentative Order R8-2020-0005.

The key areas required by the Ocean Plan on which the Santa Ana Water Board is required to make a determination, includes:

- Facility onshore location;
- Intake considerations including subsurface and surface intake systems;
- **Identified need for the desalinated water;**
- Concentrated brine discharge considerations;
- Calculation of the marine life impacts; and

- Determination of the best feasible mitigation project available.

In evaluating the proposed project, Santa Ana Regional Board staff interpreted “the identified need for the desalinated water” as whether or not the project is included in local area water planning documents, rather than a reliability need as analyzed in the OC Water Reliability Study. The Regional Board staff referenced several water planning documents; Municipal Water District of Orange County’s (MWDOC) 2015 Urban Water Management Plan (UWMP), the OC Water Reliability Study, OCWD’s Long Term Facilities Plan, and other OCWD planning documents in their evaluation of Identified Need.

On December 6, 2019, SARWQCB, Regional Board staff conducted a workshop in Huntington Beach that was heavily attended with a considerable range of views expressed at the meeting. Several of the SARWQCB members were somewhat confused about the evaluation of Identified Need for the project (inclusion in local water planning documents vs. an identified reliability need for the project) and requested staff to help them understand the issue better.

On May 15, 2020, SARWQB held a second workshop, which focused on the identified need for the desalinated water and marine life mitigation requirements. Karl Seckel presented to the Regional Board on a number of topics including: MWDOC’s role in Orange County, alternative definitions of “need” for a water supply project and the role of water agencies, Urban Water Management Plans, non-mandated planning documents, and what was and was NOT in the 2018 OC Water Reliability Study.

The Regional Board will hold a public hearing to hear all public oral comments in consideration of adoption of the tentative waste discharge requirements on July 30 & 31, 2020 at 8:30 am. If necessary, a third day of public hearings will be held on August 7, 2020 at 9:00 am.

Assuming success at the Regional Board, Poseidon would then seek its final permits from the California Coastal Commission (CCC). The CCC has committed to reviewing the permit within 90 days of the SARWQCB NPDES permit issuance.

ISSUE BRIEF # F

SUBJECT: South Orange County Projects

RECENT ACTIVITY

Doheny Desal Project

South Coast Water District (SCWD) continues working on the project:

- SCWD submitted their NPDES permit application on March 13, 2020. SCWD anticipates approval of the NPDES permit in the Fall 2020. The next step would be the Coastal Commission with a permit anticipated in Feb 2021.
- Work is progressing on the Financial Analysis for a 2 mgd and 5 mgd scenario. A workshop is currently being planned for mid-July.
- Work is also progressing on an Alternative Energy Study for the project. A draft report is under review by SCWD .

On June 25, 2020 the SCWD Board approved an amendment to the Clean Energy Capital Financial Analysis to evaluate alternative project options that meet reliability benefits for SCWD similar to the Doheny Desalination Project, along with reducing overall life-cycle costs in light of the uncertain economic situation moving forward due to the COVID-19 pandemic.

The Doheny Desalination Project is currently sized at a capacity of up to 5 MGD, which exceeds SCWD's average potable water demand expected during emergency situations. SCWD has only received interest from SMWD for about 1 mgd of supply from Doheny. This leaves South Coast with potential capacity for others in a 5 MGD facility. Based on this, along with regional financial hardships caused by the COVID-19 pandemic and potential economic recession, SCWD believes that it is necessary to consider alternative, and potentially lower cost project options, to utilize and potentially expand existing assets as a means to meet their reliability needs.

This amended study will review design parameters and existing conditions at SCWD's existing Groundwater Recovery Facility (GRF), to obtain a comprehensive understanding of actual production capacity of the GRF and current limitations and reliability concerns. A range of additional water production volumes needed to maintain emergency reliability for SCWD will be developed. Current estimates are that 1.2 to 2.2 mgd of additional reliability will be needed for SCWD based on a GRF production volume of 0.8 mgd.

At the July 23, 2020 SCWD Board meeting, nationally recognized opinion research firm Fairbank, Maslin, Maullin, Metz & Associates (FM3) presented the results of a June 8 through June 16, 2020 public opinion survey on the Doheny Desalination Project.

The opinion survey presentation is available from the SCWD website at:

https://scwd.granicus.com/MetaViewer.php?view_id=3&clip_id=2360&meta_id=154347

Conclusions of the opinion survey included:

- Three-quarters of those surveyed have a positive impression of the concept of ocean desalination.
- After a brief description to all respondents, three quarters reported they favored the project, with four-in-ten strongly in favor.
- Having an earthquake and drought-proof, diversified water supply are leading reasons to favor the project.
- Opposition to the project never reached 20 percent, and those saying they strongly opposed never exceeded 11 percent.
- Slightly more than six-in-ten said they are very or somewhat willing to pay \$15 per month for building the desalination project, with roughly three-in-ten saying they are very willing.

The highest percentage (78%) are willing to pay \$5 per month for the building of the desalination project, with 58 percent having said they would be very willing.

SMWD Trampas Canyon Recycled Water Reservoir

Trampas Canyon Reservoir and Dam (Trampas Reservoir) is a seasonal recycled water storage reservoir, with a total capacity of 5,000 AF, of which 2,500 AF is available to meet Santa Margarita Water District's projected base recycled water demands, and 2,500 AF to meet future water supply needs. When completed, the Trampas Reservoir will allow SMWD to store recycled water in the winter and draw on that water during the peak summer months.

The construction of the Trampas Canyon Recycled Water Seasonal Storage Reservoir consists of three main components:

1. Trampas Canyon Dam (Dam)
2. Conveyance facilities to transport recycled water into and out of the Reservoir (Pipelines)
3. Trampas Canyon Pump Station (Pump Station)

The construction of the facilities is being completed in three phases:

1. Preconstruction/Site Preparation for the Dam and Pump Station Construction
 - a. Project Status - Complete
2. Dam and Pipelines
 - a. Project Status – The Main Dam and West Saddle Dam embankment fills are now completed. Construction work on the spillway structure should be complete by the end of August. This phase of the work will be substantial complete on September 22, 2020.
3. Pump Station
 - a. Project Status - Trampas Pump Station project has made significant progress over the past few months. All underground piping and piping within the site

has been completed, less the above ground pressure reducing valve (PRV) components. The building structure is nearly complete with trusses starting to be installed.

The project is currently projected to be substantially complete by late September/early October 2020.

San Juan Watershed Project

Santa Margarita WD continues to focus on diversifying its water supply portfolio for south Orange County residents, businesses, schools, and visitors. On June 21, 2019, the San Juan Watershed Environmental Impact Report (EIR) was approved.

The original project had three Phases; Phase 1 was three rubber dams recovering about 700 AFY; Phase 2 added up to 8 more rubber dams with the introduction of recycled water into the creek to improve replenishment of the basin for up to 6,120 AFY, and Phase 3 added more recycled water topping out at approximately 9,480 AFY. Under this arrangement, most or all of the production and treatment involved the existing San Juan Groundwater Desalter with expansions scheduled along the way to increase production over 5 mgd. Fish passage and regulatory hurdles to satisfy subsurface travel time requirements are presenting some difficulties.

SMWD is working with the Ranch on the next phase of development within SMWD and have access to riparian groundwater from the Ranch. Furthermore, they have discovered that the local geology has high vertical percolation rates and sufficient groundwater basin travel time to potentially allow percolation of treated recycled water. SMWD is of the opinion that groundwater production and treatment of the groundwater can be initiated in a relatively short time-frame while permitting for percolation augmentation using recycled water from the nearby Trampas reservoir can be added as permitting allows. They believe the new project area may be able to ultimately produce 4,000 to 5,000 AF per year; they believe the original project will continue to be developed for production out of the wells and treatment provided by San Juan Capistrano as the two agencies merge. Ultimate production out of the basin could exceed 10,000 AF per year if all goes well.

South Orange County Emergency Service Program

MWDOC, IRWD, and Dudek have completed the study to determine if the existing IRWD South Orange County Interconnection capacity for providing emergency water to South Orange County can be expanded and/or extended beyond its current time horizon of 2030.

Dudek participated in the November 6, 2019 workshop to re-engage with the SOC agencies on this project. Support from the agencies was expressed to take a small next step to install Variable Frequency Drives at a pump station within IRWD which would be paid for by SOC to help move water from the IRWD system to SOC in an emergency. The Variable Frequency Drives will provide more flexibility to the IRWD operations staff to allow additional water to be sent to SOC while meeting all of the IRWD needs.

Strand Ranch Project

MWDOC and IRWD are continuing to exchange ideas on how to implement the program to capture the benefits that can be provided by the development of “extraordinary supplies” from the Strand Ranch Project. Staff from MWDOC and IRWD are continuing to discuss methods of quantifying the benefits of the program.

Other Information on South County Projects

Accelerated AMP Shutdown in Early 2021 to Replace PCCP Sections

In 2016, MET initiated a Prestressed Concrete Cylinder Pipe (PCCP) rehabilitation program to install 26 miles of steel liner throughout the MET system to address structural issues associated with prestressed steel wire failures in PCCP. As part of the program, MET monitors PCCP for wire breaks on a regular basis.

MWDOC staff was notified that a recent internal inspection of the AMP which included an electromagnetic surveys of the pipeline revealed two pipe segments with increased wire breaks within the PCCP portion South of OC-70. Metropolitan Engineering considers this section of the pipeline high-risk which will require relining. The minimum relining length needed would be approximately 1,000 feet, which would require a minimum 1-month shutdown only South of OC-70. A longer shutdown duration would allow Metropolitan to reline approximately 3,300 feet, which would reduce the number of shutdowns needed for future relining of the entire PCCP portion of the AMP and would reduce the overall construction and shutdown costs. MET had originally scheduled the AMP PCCP relining to begin in about 5 years, but based on the survey, the relining of this initial section has been accelerated.

MET’s engineering group considers three segments of pipe within a 1,000 linear foot reach downstream of OC-70 as increased risk due to the segments having 20 or more wire breaks. MET does not recommend that repairs to these segments wait until Fall 2021 and is looking to schedule the shutdown in early 2021.

MWDOC staff coordinated a meeting with all AMP participants on May 13, 2020 to discuss the options for the proposed shutdown.

Two MWDOC member agency projects are also scheduled around the same time as the pending AMP shutdown; a South Coast Water District vault rehabilitation that was previously postponed due to the Diemer shutdown, and Santa Margarita Water District relocation of a portion of the Aufdenkamp Connection Transmission Main (ACTM) to accommodate the I-5 widening project.

Staff is continuing to work with affected agencies and will keep both the Board and the AMP Participants informed as more information becomes available.

If any agencies would like to have updates included herein on any projects within your service area, please email the updates to Karl Seckel at kseckel@mwdoc.com.

**Summary Report for
The Metropolitan Water District of Southern California
Board Meeting
July 14, 2020**

WATER PLANNING AND STEWARDSHIP COMMITTEE

Confirm the board-adopted goal of 170,000 AFY for LRP projects and direct staff to continue bringing forward proposed LRP project agreements for action; direct staff to continue funding demand management programs through program reserves; commit to completion of the IRP process, and make adjustments to LRP and other demand management programs as needed upon completion of the IRP; and direct staff to assist the Board in developing a replacement funding mechanism to the Water Stewardship Rate for 2023 forward. **(Agenda Item 8-1)**
(TABLED - Recommended that the issues be considered at the September meeting of the Finance and Insurance Committee, subject to approval by the Executive Committee)

CONSENT CALENDAR

In other actions, the Board:

Authorized an agreement with AVI-SPL, Inc. in an amount not-to-exceed \$3.75 million to upgrade the audiovisual systems in the board and committee rooms at Metropolitan's Headquarters Building. **(Agenda Item 7-1)**

Approved process for the General Manager recruitment described in the board letter with the amendment to replace "oversee" to "conduct" in the last sentence on bullet number 4. **(Agenda Item 7-2)**

Reviewed and considered Addendum No. 1 to the 2015 Mitigated Negative Declaration, and awarded a \$3,270,000 contract to Kiewit Infrastructure West Co. to reline pipe and replace pipefittings at the Lake Perris Control Facility and on the Lakeview Pipeline. **(Agenda Item 7-3)**

Awarded a \$5,410,000 contract to J.F. Shea Construction, Inc. to reline a portion of the Lake Perris Bypass Pipeline. **(Agenda Item 7-4)**

Authorized an amendment to a professional services agreement with Systems Integrated, LLC, for up to six years in an amount not-to-exceed \$362,000 annually, to provide support and maintenance of Metropolitan's existing Supervisory Control and Data Acquisition (SCADA) system. **(Agenda Item 7-5)**

Reviewed and considered the Lead Agency's adopted 2004 Negative Declaration and 2019 Addendum, and take related CEQA actions, and adopted resolution for the 111th Fringe Area Annexation concurrently to Eastern Municipal Water District and Metropolitan. **(Agenda Item 7-6)**

By a two-thirds vote, authorized the General Manager to make payments of up to \$3.97 million to the State Water Contractors for FY 2020/21. **(Agenda Item 7-7)**

Approved two LRP applications, under the current LRP program and existing contracts as recommended by staff in the board letters without the new contract language added. **(Substitute Motion - Agenda Items 7-8 and 7-9)**

Reviewed and considered the Lead Agency's Mitigated Negative Declaration and took related CEQA actions, and authorized the General Manager to enter into a Local Resources Program Agreement with SDCWA and the East County Advanced Water Purification Program Joint Powers Authority for the East County Advanced Water Purification Project for up to 12,882 AFY of recycled water under the terms included in this letter. **(Agenda Item 7-8)**

Reviewed and considered the approved/certified CEQA documents and took related CEQA actions; and authorized the General Manager to enter into a Local Resources Program Agreement with the San Diego County Water Authority and the City of Escondido for the Escondido Membrane Filtration Reverse Osmosis Facility Project for up to 3,280 AFY of advanced treated recycled water under the terms included in this letter. **(Agenda Item 7-9)**

CONSENT CALENDAR OTHER ITEMS

Approved Commendatory Resolution to Director Brett R. Barbre, representing the Municipal Water District of Orange County. **(Agenda Item 6C)**

Adopted motion to adjourn the August Board Meeting to August 18, 2020, to establish tax rate. (Committees to meet on August 17 and 18, 2020) **(Agenda Item 6D)**

OTHER MATTERS

Presented Commendatory Resolution for Director Vartan Gharpetian representing the City of Glendale. **(Deferred - Agenda Item 6G)**

THIS INFORMATION SHOULD NOT BE CONSIDERED THE OFFICIAL MINUTES OF THE MEETING.

Board letters related to the items in this summary are generally posted in the Board Letter Archive approximately one week after the board meeting. In order to view them and their attachments, please copy and paste the following into your browser:

<http://mwdh2o.com/WhoWeAre/Board/Board-Meeting/Pages/search.aspx>

All current month materials, before they are moved to the Board Letter Archive, are available on the public website here: <http://mwdh2o.com/WhoWeAre/archived-board-meetings>



DRAFT

Item No. 7b

Regular Board Meeting

August 18, 2020

12:00 p.m.

Tuesday, August 18, 2020

Meeting Schedule

9:30 AM	Adj L&C
10:30 AM	Adj OP&T
12:00 PM	Adj Board

Live streaming is available for all board and committee meetings on our mwdh2o.com website
([Click to Access Board Meetings Page](#))

Public Comment Via Teleconference Only: Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via teleconference only. To participate call (404) 400-0335 and use Code: 9601962.

MWD Headquarters Building

•

700 N. Alameda Street

•

Los Angeles, CA 90012

1. Call to Order

- (a) Invocation: TBD
- (b) Pledge of Allegiance: Director Steve Blois

2. Roll Call

3. Determination of a Quorum

- 4. Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. (As required by Government Code Section 54954.3(a))

5. OTHER MATTERS AND REPORTS

- A. Report on Directors' events attended at Metropolitan expense for month of July 2020
- B. Chairwoman's Monthly Activity Report
- C. General Manager's summary of activities for the month of July 2020
- D. General Counsel's summary of activities for the month of July 2020

- E. General Auditor's summary of activities for the month of July 2020
- F. Ethics Officer's summary of activities for the month of July 2020
- G. Report on list of certified assessed valuations for fiscal year 2020/21 and tabulation of assessed valuations, percentage participation, and vote entitlement of member agencies as of August 18, 2020. (F&I)
- H. Presentation of Commendatory Resolution for Director Brett R. Barbre representing the Municipal Water District of Orange County

CONSENT CALENDAR ITEMS — ACTION
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6. CONSENT CALENDAR OTHER ITEMS — ACTION

- A. Approval of the Minutes of the Meeting held July 14, 2020, and the corrected Minutes of the Meeting for June 9, 2020
(Copies have been submitted to each Director)
Any additions, corrections, or omissions
- B. Adopt motion to adjourn the September Board Meeting to September 15, 2020, due to holiday. (Committees to meet on September 14 and 15, 2020)
- C. Approve committee assignments

7. CONSENT CALENDAR ITEMS — ACTION

- 7-1** Adopt resolution establishing the tax rate for fiscal year 2020/21; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (F&I)
- 7-2** Authorize an increase of \$5,850,000 in change order authority for building improvements at Metropolitan's Headquarters Building; and amend two agreements for technical support of the improvements: 1) with IBI Group for a new not-to-exceed amount of \$2.57 million, and 2) with ABS Consulting, Inc., for a new not-to-exceed amount of \$12.18 million; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (E&O)

- 7-3** Award a \$5,822,000 contract to Bernards Bros., Inc. for Stage 2 physical security improvements at Metropolitan's Headquarters Building; and authorize an increase of \$530,000 to an agreement with IBI Group, for a new not-to-exceed amount of \$3.1 million for technical support and design services; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (E&O)
[Conference with Metropolitan Assistant General Manager, Shane Chapman, or designated agent on physical security improvements at Metropolitan's Headquarters Building; may be heard in closed session pursuant to Government Code section 54957, subdivision (a)]
- 7-4** Award a \$13,999,000 contract to Bernards Bros, Inc. for fire alarm and smoke control system upgrades at Metropolitan's Headquarters Building; and authorize an increase of \$1.5 million to an agreement with Lee & Ro, Inc., for a not-to-exceed amount of \$4 million for specialized inspection and technical support; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (E&O)
- 7-5** Review and consider the City of San Jacinto's adopted Mitigated Negative Declaration and take related CEQA actions, and authorize the General Manager to grant a permanent easement for public road purposes to the City of San Jacinto on Metropolitan-owned property in the county of Riverside. (RP&AM)
- 7-6** Approve recommendation to award contract to Executive Search Firm. (OP&T)
- 7-7** Authorize an agreement with SHI International Corp. in an amount not-to-exceed \$1,459,234 for the equipment purchase for the Backup Location for the Datacenter Modernization project; the General Manager has determined the proposed action is exempt or otherwise not subject to CEQA. (OP&T)
[Conference with Metropolitan Information Technology Unit Manager of the Program Management Office Alex Encarnacion, or designated agents on threats to public services or facilities; may be heard in closed session pursuant to Gov. Code Section 54957(a)]

END OF CONSENT CALENDAR ITEMS

8. OTHER BOARD ITEMS — ACTION

None

9. BOARD INFORMATION ITEMS

- 9-1** Update on Conservation Program
- 9-2** Communications and Legislation Committee Report
- 9-3** Introduction of Ordinance No. 151 - Determining that the Interests of Metropolitan Require the Use of Revenue Bonds in the Aggregate Principal Amount of \$500 Million to Finance a Portion of Capital Expenditures
- 9-4** Encroachment Management Report. (RP&AM)

10. OTHER BOARD ITEMS

- 10-1** Department Head Performance Evaluations
[Public Employees' performance evaluations; General Manager, General Counsel, and General Auditor; to be heard in closed session pursuant to Gov. Code 54957.]

11. FOLLOW-UP ITEMS

12. FUTURE AGENDA ITEMS

13. ADJOURNMENT

NOTE: Each agenda item with a committee designation will be considered and a recommendation may be made by one or more committees prior to consideration and final action by the full Board of Directors. The committee designation appears in parentheses at the end of the description of the agenda item e.g., (E&O, F&I). Committee agendas may be obtained from the Board Executive Secretary.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <http://www.mwdh2o.com>.

Requests for a disability related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.