

MEETING AGENDA

Southern Nevada Water Authority Integrated Resource Planning Advisory Committee 2020



Wednesday, August 19, 2020

10:00 a.m.

**Colorado River Conference Rooms, Southern Nevada Water Authority
100 City Parkway, Seventh Floor, Las Vegas, Nevada**

View this meeting live at www.snwa.com

All items on the agenda are for action by the Advisory Committee, unless otherwise indicated. Items may be taken out of order. The committee may combine two or more agenda items for consideration, and the committee may remove an item from the agenda or delay discussions relating to an agenda item at any time.

Visit our website at www.snwa.com for agenda postings, copies of supporting material and approved minutes. This meeting will be available to view live on www.snwa.com. Public comment can be provided in advance of the meeting and submitted to PublicComment@snwa.com. Public Comment received through August 20, 2020, will be included in the meeting's minutes.

CALL TO ORDER

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: This is a period devoted to comments by the general public pertaining to items on this agenda. If you wish to speak to the Advisory Committee about items within its jurisdiction, but not appearing on this agenda, you must wait until the "Comments by the General Public" period listed at the end of this agenda. Please limit your comments to three minutes or less. No action may be taken upon a matter not listed on the posted agenda.

1. *For Possible Action:* Approve agenda and minutes from the March 4, 2020 meeting
2. *For Information Only:* Receive an update on IRPAC status since last meeting, including COVID-19 impacts and response
3. *For Possible Action:* Review updated funding model
4. *For Possible Action:* Review committee recommendations and approve changes as appropriate

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: At this time, the Advisory Committee will hear general comments from the public on matters under the jurisdiction of the Committee. Please limit your comments to three minutes or less. No action may be taken upon a matter not listed on the posted agenda.

THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS:

City of Boulder City, City Hall
401 California Avenue
Boulder City, NV

City of North Las Vegas, City Hall
2250 Las Vegas Boulevard North
North Las Vegas, NV

City of Henderson, City Hall
240 Water Street
Henderson, NV

Clark County Government Center
500 S. Grand Central Parkway
Las Vegas, NV

Las Vegas Valley Water District
1001 S. Valley View Boulevard
Las Vegas, NV

Southern Nevada Water Authority
100 City Parkway
Las Vegas, NV

Clark County Water Reclamation District
5857 East Flamingo Road
Las Vegas, NV

City of Las Vegas, City Hall
495 South Main Street
Las Vegas, NV

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INTEGRATED RESOURCE PLANNING ADVISORY COMMITTEE 2020 MEETING SUMMARY

March 4, 2020, 3:00 p.m.

*Colorado River Conference Rooms, Southern Nevada Water Authority
100 City Parkway, 7th Floor, Las Vegas, Nevada*

IRPAC members present:	Ken Evans	Carol Jefferies
	Andy Maggi	Paul Moradkhan
	Tom Morley	Bob Murnane
	Jonas Peterson	Phil Ralston

IRPAC members absent:	Peter Guzman	John Restrepo
	Virginia Valentine	

Staff present:	John Entsminger	Dave Johnson
	Julie Wilcox	Kevin Bethel
	Andy Belanger	Tabitha Fiddymment
	Peter Jauch	Doa Meade
	Colby Pellegrino	Katie Horn
	Jordan Bunker	

Others present:	Terry Murphy, Facilitator
	Guy Hobbs, Financial Consultant

PUBLIC COMMENT

Ed Uehling stated that the 50-year population outlook of one million additional residents to Southern Nevada can be accommodated with the surplus of water that is currently available with Nevada's annual allocation and there is no need to spend money on additional water resources. He suggested expanding the tiered water system to help conserve water and bring in additional funds.

Kevin Keating, H&R Real Estate Investment Trust, manages the recently purchased 900 acres at the old Faraday Future site in North Las Vegas. He expressed gratitude to the SNWA and IRPAC for its commitment to supporting North Las Vegas and stated that the Apex development will help bring thousands of jobs to the local economy.

SUMMARY OF ACTIVITIES

The Southern Nevada Water Authority's (SNWA) Integrated Resource Planning Advisory Committee 2020 (IRPAC 2020) met on Wednesday, March 4, 2020. The meeting began at 3:10 p.m.

#1 Approve agenda and minutes from the February 12, 2020 meeting.

Tom Morley motioned to approve the agenda and minutes from the February 12th meeting. The agenda and minutes were approved.

#2 Review all draft recommendations and make any changes or additions.

John Entsminger, General Manager, reviewed the committee's draft Recommendations Report, noting a change to one of the recommendations which is highlighted below in *italics*.

General

- Work with community stakeholders to implement IRPAC recommendations.

MCCP and Facilities

- Maintain current asset management funding levels and practices to ensure reliable water treatment and transmission in Southern Nevada.
- Pursue projects to meet the Nevada Renewable Portfolio Standard.
- Include the candidate projects presented to IRPAC 2020, totaling \$3.166 billion, in the SNWA's Major Construction and Capital Plan (MCCP).

Water Resources

- Pursue emerging water resource opportunities with Colorado River partners to increase Nevada's water supplies, *as presented to IRPAC on December 18, 2019.*

Andy Maggi made the suggested change to refer to the specific partnership opportunities that were presented at that meeting.

- Require out-of-valley development to return wastewater to Lake Mead and embed the principles of the SNWA's Out of Valley Water Use Policy within municipal codes and LVVWD Service Rules.

Conservation

- Pursue changes necessary to achieve the SNWA's current water conservation goal of a minimum of 105 GPCD by 2035 and further efforts to achieve additional conservation thereafter.
- Reduce existing non-functional turf acreage by 50 percent by 2035.
- Embed the principles of the SNWA's Non-Functional Turf Resolution in municipal codes and LVVWD Service Rules.
- Limit future installations of cool-season turf in public spaces and expedite the conversion of cool-season turf to warm-season turf at existing public facilities.
- Implement smart controller technology to automate landscape watering compliance and increase outreach and enforcement efforts.
- Pursue implementation of advanced metering infrastructure and develop partnerships and programs to improve the speed of customer leak repairs.
- Evaluate changes necessary to reduce current and future consumptive water losses associated with evaporative cooling technology.
- Establish an efficiency review policy and process for new large water users to encourage efficient development and minimize consumptive use.

- Continue to make investments that will maintain or improve the existing water loss rates among wholesale and retail water purveyors.
- Continue outreach efforts to engage the public and effectuate the changes needed to meet the community's regional conservation goal.

Funding

- Fund the MSCP with a combination of debt capital and pay-go to manage unrestricted reserve balances at adequate levels consistent with the Reserve Policy.
- Implement a six-year annual increase to SNWA charges effective January 2021 to:
 - 1) Phase-in an inflationary catch up, and
 - 2) Adjust for subsequent annual inflation within the six-year period:
 - Increase the Connection Charge by 9.0% annually for six years
 - Increase the Infrastructure Charge by 4.3% annually for six years
 - Increase the Commodity Charge by 4.5% annually for six years
- Implement an indexed rate component to the SNWA Infrastructure and Commodity charges annually, effective January 2027, and limit future increases to a floor of 1.5% and a ceiling of 4.5% each year.
 - Infrastructure Charge in accordance with Engineering News Record (ENR) index
 - Commodity Charge in accordance with the Consumer Price Index (CPI)

Do not implement inflationary increases in a year in which the five-year forecast unrestricted reserve balance is projected to be greater than 150% of targeted reserve balances.

- Implement an indexed rate component to the SNWA Connection Charge annually in accordance with the Engineering News Record (ENR) index, effective January 2027.
- Eliminate the \$16.1 million Connection Charge threshold, require SNWA Connection Charge revenues to fund the pay-go portion of capital expenditures and related debt service, and exclude from funding recurring operating expenses.
- Provide IRPAC 2020 with an annual update of the funding model and convene the committee as necessary.

#3 Discuss, finalize and, if appropriate, approve Recommendations Report.

Terry Murphy read statements from those committee members that were unable to attend the meeting. Their statements are attached to these minutes.

Phil Ralston, representing commercial real estate, stated that while NAIOP does not oppose any of the recommendations, there is a concern that the SNWA is one of many public entities that imposes fees on the development community. He stated that there is no regional consideration of the whole of rate increases that affect the cost to commercial real estate and development.

Bob Murnane agreed with Mr. Ralston's comments as it also relates to the homebuilder community. He expressed that the SNWA has been conservative in its projections and aggressive in its conservation and understands the need for system reliability.

Paul Moradkhan stated that the Las Vegas Chamber is philosophically in support of the recommendations but will not meet as a group to discuss them until Monday, March 9, 2020. Because of that, Mr. Moradkhan abstained from voting.

Jonas Peterson stated that the committee and the SNWA has done a thorough job at looking at all available options and has created a path to continue to support development and growth. Mr. Peterson made a motion to approve the Recommendations Report. Tom Morley seconded the motion.

Ken Evans stated that the Urban Chamber of Commerce agrees with the committee and supports the recommendations. He stated that the SNWA has done a great job with its water conservation efforts and in seeking additional water resources.

Carol Jefferies stated that she is impressed with the SNWA's forward-thinking approach to planning.

Andy Maggi praised SNWA for its work with conservation programs and its efforts to reduce the use of water throughout the region, keeping more water in Nevada and reducing demand from other potential resources.

The motion to approve the Recommendations Report was approved, with Mr. Moradkhan's abstention.

On behalf of the SNWA staff, Mr. Entsminger thanked the committee for its participation. He stated that these approved recommendations will go before the SNWA Board of Directors for approval on March 19th. He noted that public outreach activities will continue throughout the year and that, if approved by the Board, the recommended rate scenario would take effect on January 1, 2021.

With no additional comments, Ms. Murphy closed the meeting.

PUBLIC COMMENT

There were no speakers.

ADJOURNMENT

The meeting was adjourned at 3:34 p.m.

From: [peter guzman](#)
To: [John Restrepo](#)
Cc: [Jason Bailey](#); [Terry Murphy](#); [Carol Jefferies](#); [kevans@urbanchamber.org](#); [pmoradkhan@lvchamber.com](#); [Andy Maggi](#); [Tom Morley](#); [bmurnane@gcwengineering.com](#); [Jonas Peterson](#); [Phil Ralston](#); [valentine@nevadaresorts.org](#); [sabrina@nevadaresorts.org](#); [Heather.Senn@amnev.com](#); [Christine Dominguez](#); [Jordan Bunker](#); [Melissa Trammell](#); [Katie Horn](#)
Subject: {EXTERNAL} Re: SNWA IRPAC Agenda & Minutes
Date: Saturday, February 29, 2020 5:24:55 PM

As I mentioned, I will be in D.C. at the White House, on a panel on Economic Development. I could call I if given a call in number.
I support the committees recommendations.

Thank You
Peter Guzman

IMPORTANT MESSAGE: This electronic message (including all attachments) is covered by the Electronic Communications Privacy Act 18 U.S.C. [2510-2521](#), and is confidential and legally privileged. In addition, information contained in this e-mail message is personal and confidential and is intended for a specific entities or individual(s) and purpose and therefore is protected from disclosure under the Framm-Leach-Bliley Act. If you are not the intended recipient, you should delete this message and attachment(s) and are hereby notified that any disclosure, copying, distribution of this message and attachment(s), or the taking of any action based on it, is strictly prohibited as noted above. If you have received this communication in error, please notify the sender and erase this e-mail message immediately. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which it is received, it is the responsibility of the recipient to ensure it is virus free and no responsibility is accepted by The Opa Group and/or Peter Guzman for any loss or damage arising in any way from its use. Thank you.

On Feb 29, 2020, at 5:13 PM, John Restrepo <jrestrepo@rcgl.com> wrote:

I will not be able to attend the meeting. But j agrees with and support the Committee recommendations.

JR

Sent via the Samsung Galaxy S9+, an AT&T 5G Evolution capable smartphone

----- Original message -----
From: Jason Bailey <jason.bailey@lvvwd.com>
Date: 2/25/20 4:40 PM (GMT-08:00)

March 3, 2020

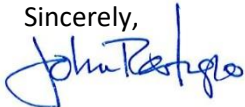
Mr. John Entsminger
General Manager-SNWA
100 City Parkway 6th Floor
Las Vegas, 89106

Re: SNWA IRPAC Recommendations

Dear John:

As we discussed, I will not be able to attend the March 4, 2020 Integrated Resource Planning Advisory Committee ("IRPAC") meeting. Accordingly, I wanted to inform you in writing that I agree with and support the IRPAC's recommendations detailed in the draft *"Recommendations Report, March 2020"* provided by the SNWA on February 20, 2020 via email.

Sincerely,



John Restrepo

From: [Terry Murphy](#)
To: [Katie Horn](#); [John Entsminger](#); [Julie Wilcox](#); [Jordan Bunker](#); [Andrew Belanger](#); [Kevin Bethel](#); [Dave Johnson](#); [Guy Hobbs](#); [Colby Pellegrino](#)
Subject: {EXTERNAL} Fwd: IRPAC
Date: Wednesday, March 04, 2020 1:45:55 PM

FYI...

Terry Murphy
Strategic Solutions

Begin forwarded message:

From: Virginia Valentine <valentine@nevadaresorts.org>
Date: March 4, 2020 at 1:44:19 PM PST
To: Terry Murphy <tmurphy@strategicsolutionsnv.com>, Terry Murphy <tmurphy951@aol.com>, Dawn Christensen <dawn@nevadaresorts.org>
Subject: IRPAC

Hi Terry,

Unfortunately my flight from Reno to Las Vegas this afternoon has been canceled and I will miss the IRPAC meeting this afternoon. The Association supports the recommendations that were provided in the backup material distributed today.

We also strongly support the recommendations regarding follow up meeting with the IRPAC to review the progress and performance of the rate increases and related programs.

Thank you,
Virginia

RECOMMENDATIONS: REVIEW AND UPDATES

AUGUST 2020



SOUTHERN NEVADA WATER AUTHORITY™

MEETING OVERVIEW

- IRPAC Status – March 2020
- Review Covid-19 response and fiscal impacts
- Review revised funding model
- Make updates to recommendations, if appropriate

MARCH 2020

- March 4: IRPAC meeting; approved recommendations report
- 22 recommendations: Facilities, Water Resources, Conservation and Funding and included a \$3.16 billion Major Construction and Capital Plan (MCCP)
- Recommendations slated for SNWA Board approval March 19

MCCP CANDIDATE PROJECTS

Horizon Lateral	\$1,596.7 million
Garnet Valley Water System	129.8
Garnet Valley Wastewater System	120.0
Water Recycling Projects	26.0
Solar PV Project	20.8
Asset Management	<u>229.7</u>
Total MCCP Facility Projects	\$2,123.0
Future Water Supplies	587.7
Virgin & Muddy River Water	98.4
Minute 323	36.4
Arizona Water Banking	<u>5.5</u>
Total MCCP Water Supplies	\$728.0
Water Smart Landscaping	152.3
Resources/Conservation Contingency	<u>162.3</u>
TOTAL MCCP EXPENDITURES AS PROPOSED	\$3,165.6 million*

*in today's dollars

The background of the slide is a photograph of a large stack of blue pipes, likely for industrial or construction use. The pipes are arranged in a way that creates a sense of depth, with some pipes in the foreground and others receding into the background. A semi-transparent blue overlay covers the entire image, and the title text is written in white, bold, italicized font in the center.

COVID-19 RESPONSE AND FISCAL IMPACT

COVID-19 RESPONSE

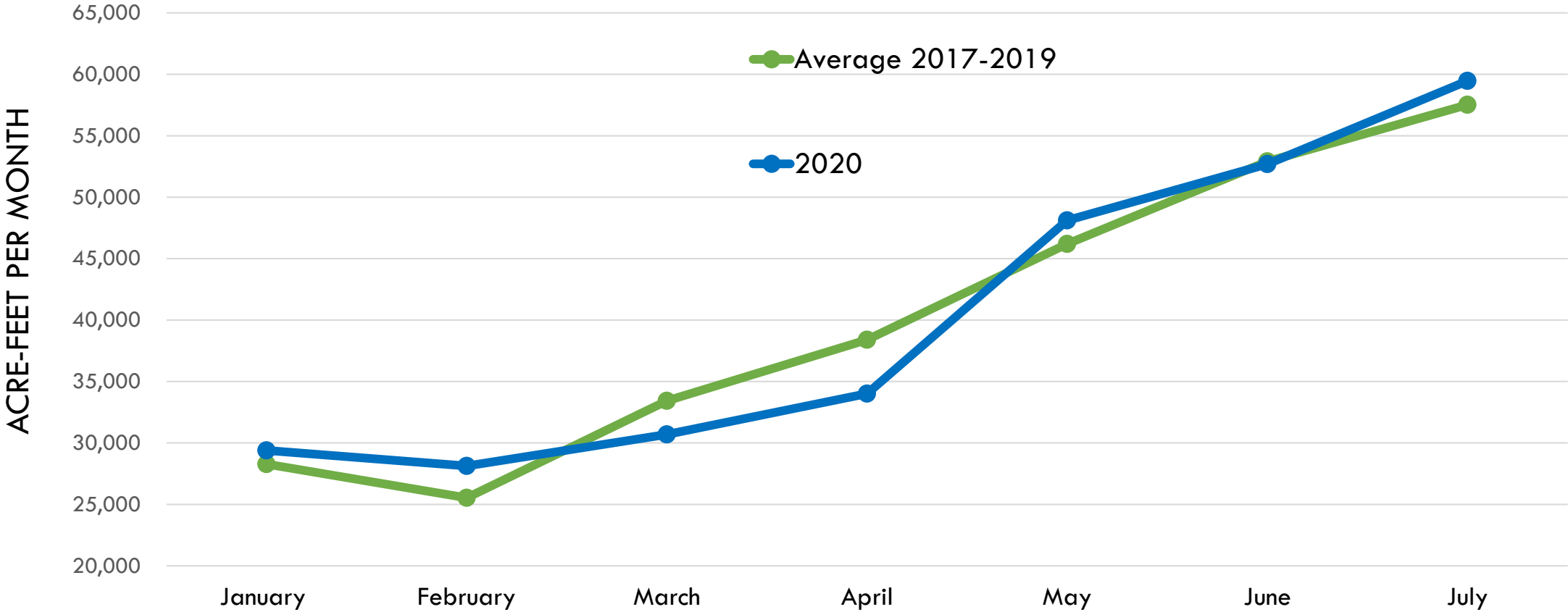
- Closed offices on March 17; moved staff to working remotely except those performing critical functions onsite
- Shifted developer submittal process to accommodate social distancing
- Maintained employee working status and Collective Bargaining Agreements
- Donated 50,000 N95 masks to first responders
- Deferred/reduced capital and operating expenditures
- Offered Voluntary Separation Plan for employees
- Maintained the communities water service while meeting all safety standards under difficult circumstances

COVID-19 ESTIMATED BUDGET IMPACTS

2020-21 SNWA Budget Response:

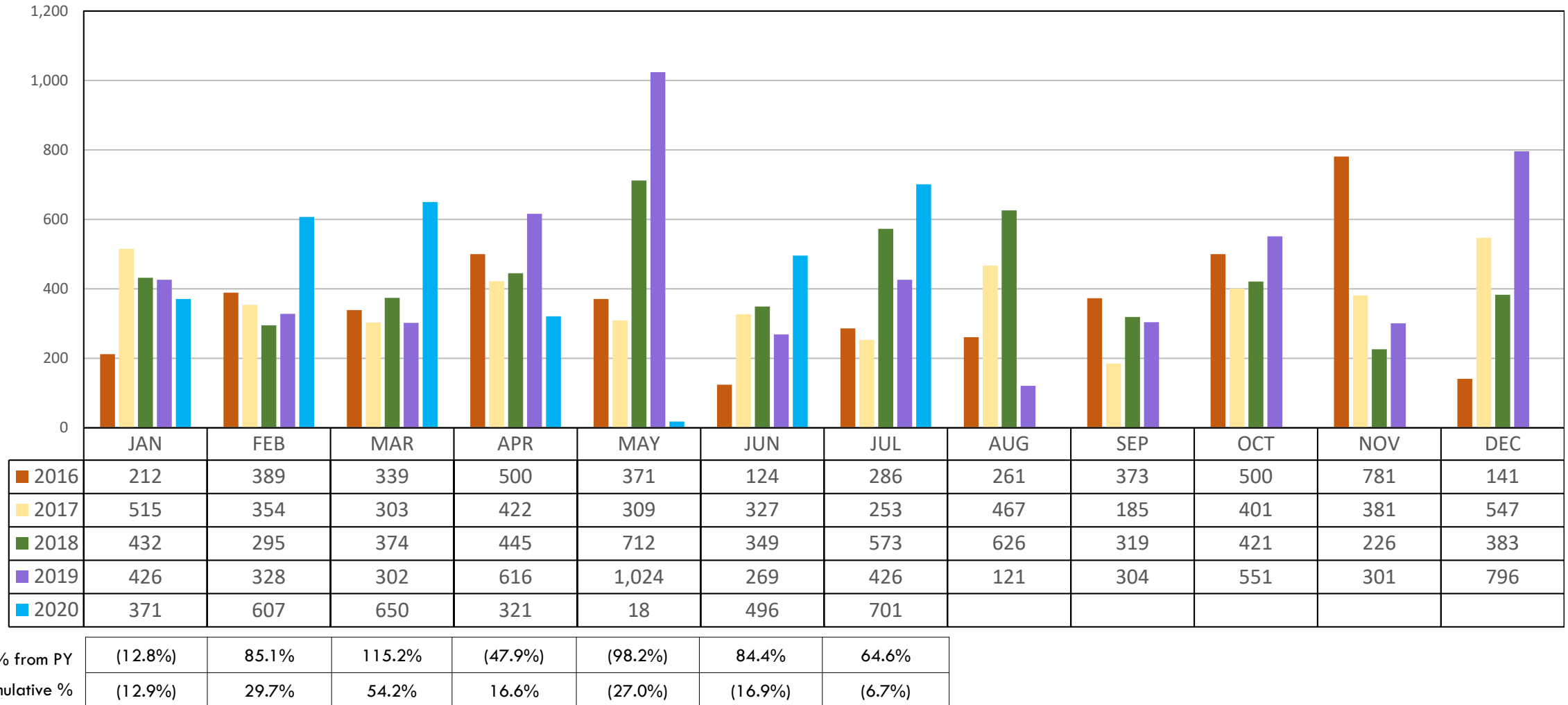
- Projected revenue and other sources of funds impact of (\$107.2) million
- Water sale revenues estimated to decline by 8%
- Sales tax revenues down 37%
- Connection Charge revenues down 75%
- IRPAC-recommended increases to the Infrastructure Charge and Commodity Charge not included in 2020-21 budget

2020 SNWA MONTHLY USE



NEW SERVICE CONNECTIONS

New service connections – monthly totals



PRESENT DAY IMPACTS

- SNWA Budget estimates water sale revenues are projected to decline by 8%; actual declines have been 3% YTD
- SNWA Budget assumes Connection Charge revenues down 75%; however, actual declines have been 7% YTD



REVISED FUNDING SCENARIO

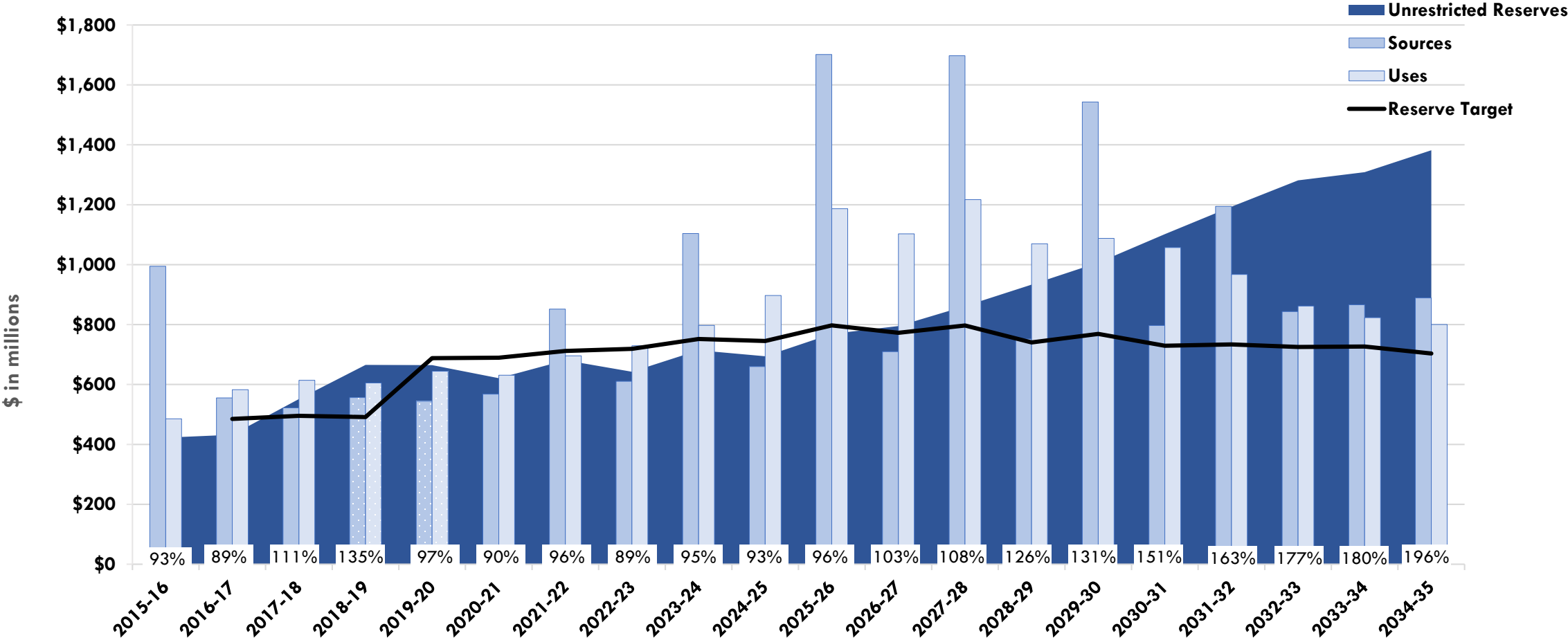
IRPAC FUNDING SCENARIO

		Scenario Results							
Scenario Variables		% of Reserve Target				Projected Reserves (in millions)			
With Contingency (\$3.51 B)		Floor		Year 5 2024-25	Year 10 2029-30	Year 5: 2024-25		Year 10: 2029-30	
		%	Year			Amount	Target	Amount	Target
1A	100% debt funded (6 year phase-in)	89%	2022-23	93%	131%	\$694	\$745	\$1,007	\$769
1B	75% debt funded (6 year phase-in)	58%	2028-29	73%	74%	\$538	\$735	\$529	\$718

Approved March 2020

IRPAC FUNDING SCENARIO

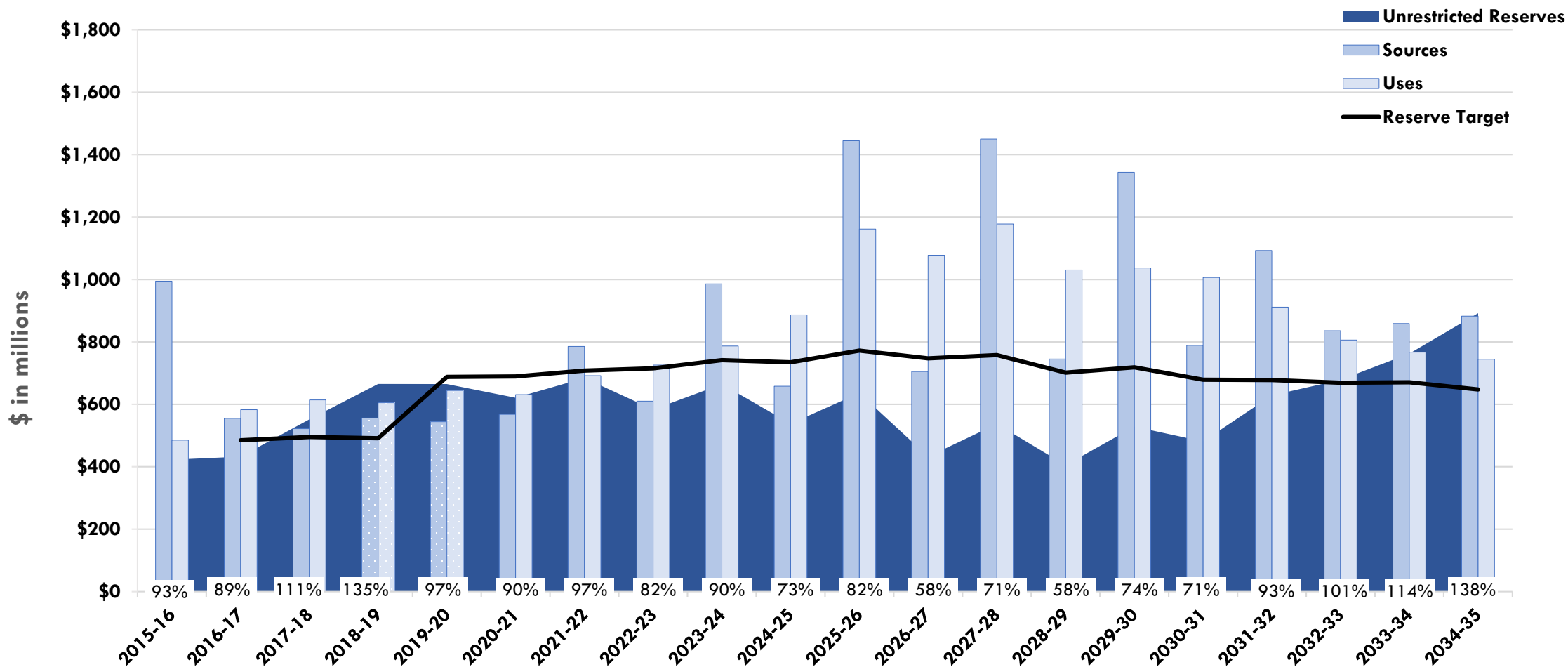
100% Debt Issuance; Six Year Rate Phase-in



Approved March 2020

IRPAC FUNDING SCENARIO

75% Debt Issuance; Six Year Rate Phase-in



REVISED IRPAC BASE SCENARIO

Revised to reflect anticipated Covid-19 impacts

- Updated actuals through May 2020
- Delayed implementation of new rates to 2022
- Adjusted phase-in rates to reflect inflation through December 2021
- Revised outlook to reflect Covid-19 impacts to revenues and other sources of funds
- Reduced operating expenses (Covid-19 response)
- Refined capital cash flows
- Adjusted Debt/Pay-Go ratio to 90%/10%

REVISED IRPAC BASE SCENARIO

Revenue impacts to IRPAC model scenario funding (10 year):

Revenue Item	Cumulative Dollar Impact (All rate adjustments in 2022)	Cumulative Dollar Impact (Connection Charge only in 2021)
Wholesale Delivery Charge	(\$28,519,779)	(\$28,519,779)
Infrastructure Charge	(91,390,835)	(91,390,835)
Commodity Charge	(111,827,797)	(111,827,797)
Connection Charge	(168,034,114)	(152,137,251)
Sales Tax	(49,106,068)	(49,106,068)
Total	(\$448,878,593)	(\$432,981,730)

MAINTAINING PACE WITH INFLATION

IRPAC RECOMMENDED INCREASES

		6 YEAR PHASE-IN						INDEXING
		2021	2022	2023	2024	2025	2026	2027 ➡
Connection Charge (ENR) <i>Last increased in 2008</i>	Catch-Up Inflation	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%

Commodity Charge (CPI) <i>Last increased in 2017</i>	Catch-Up Inflation	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%
	Current Year Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	2.5%

Infrastructure Charge (ENR) <i>Last increased in 2018</i>	Catch-Up Inflation	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	3.0%

MAINTAINING PACE WITH INFLATION

RATE INCREASES IMPLEMENTED JANUARY 2022

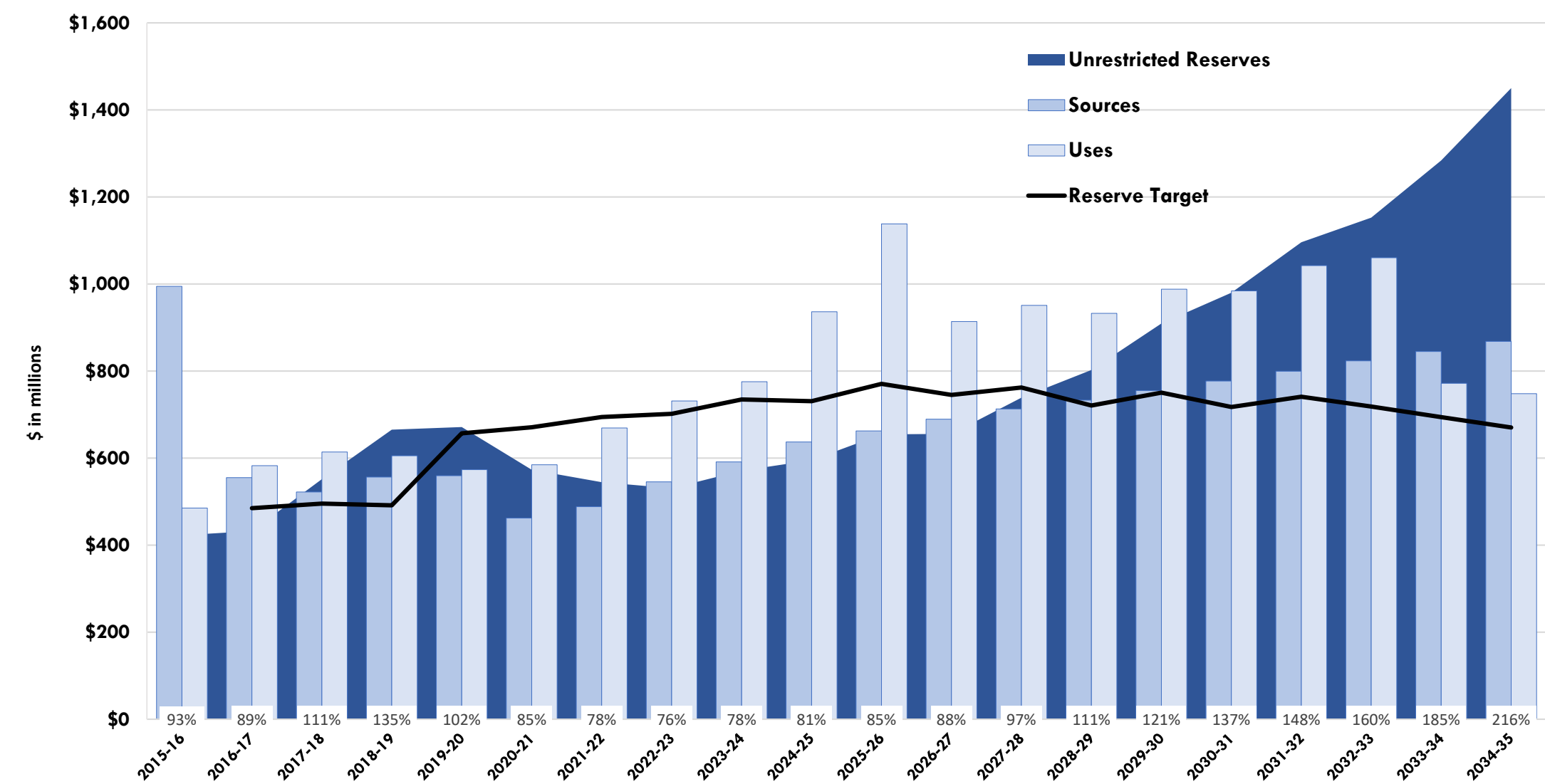
		6 YEAR PHASE-IN STARTING 2022						INDEXING
		2022	2023	2024	2025	2026	2027	2028 ➡
Connection Charge (ENR) <i>Last increased in 2008</i>	Catch-Up Inflation	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	3.0%

Commodity Charge (CPI) <i>Last increased in 2017</i>	Catch-Up Inflation	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	0.0%
	Current Year Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	2.5%

Infrastructure Charge (ENR) <i>Last increased in 2018</i>	Catch-Up Inflation	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	3.0%

UPDATED BASE SCENARIO

90%/10% funding; Rate Increases implemented 2022



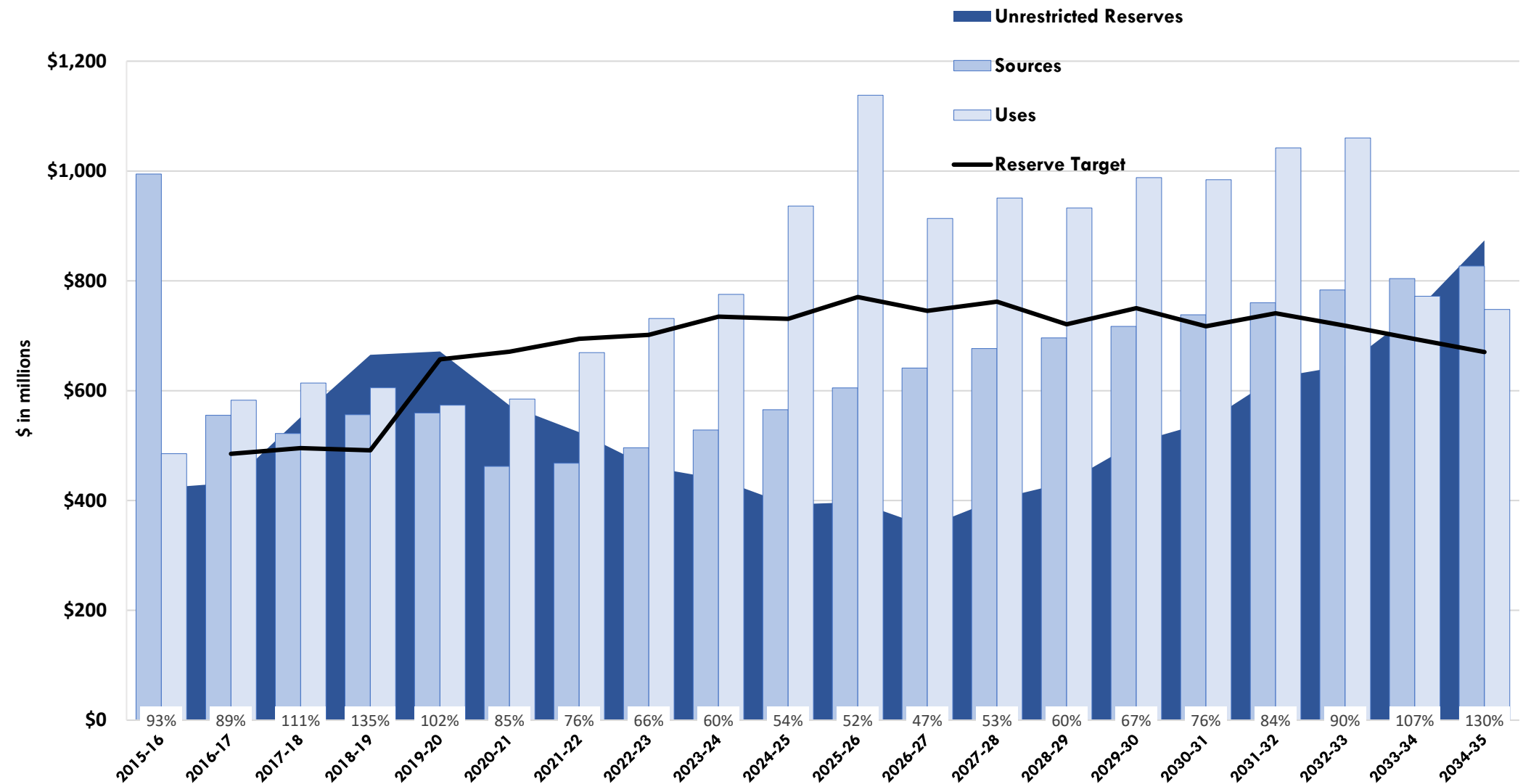
MANAGING IMPACTS

- Reduced water sales by full 10%
- Additional reduction to customer growth and connection charge revenues
- Slower sales tax recovery

Revenue Item	Revised IRPAC Base Case	Downside Scenario
Wholesale Delivery Charge	(\$28,519,779)	(\$194,372,177)
Infrastructure Charge	(91,390,835)	(91,390,835)
Commodity Charge	(111,827,797)	(190,108,283)
Connection Charge	(168,034,114)	(267,543,569)
Sales Tax	(49,106,068)	(104,265,080)
Total	(\$448,878,593)	(\$847,679,944)

Downside Scenario (Illustrative Only)

MANAGING IMPACTS



MANAGING CAPITAL SPEND

Each MCCP project has a number of opportunities to defer spending. These options allow SNWA to manage spending to maintain appropriate reserves.

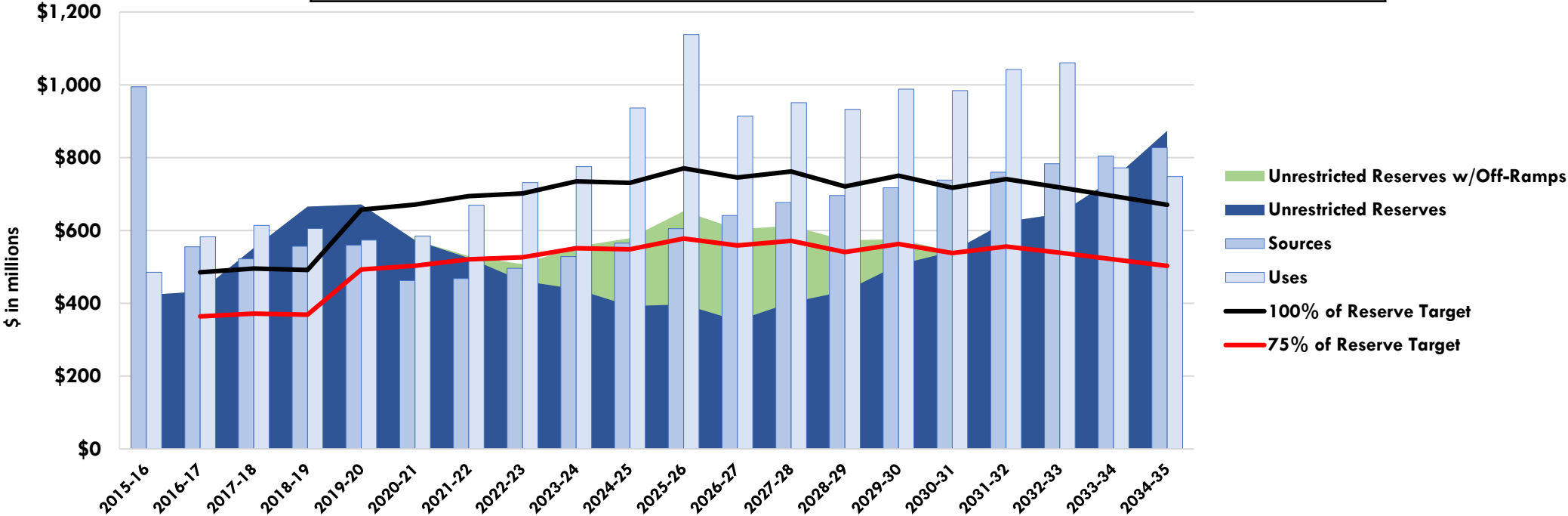
Horizon Lateral Example

[illegible]

Downside Scenario (Illustrative Only)

MANAGING IMPACTS

	2021-22	2022-23	2023-24	2024-25	2025-26
<u>Estimate</u>					
Annual Off-Ramps	5,294,444	40,884,000	70,000,000	70,000,000	70,000,000
Cumulative Off-Ramps		46,178,444	116,178,444	186,178,444	256,178,444
<u>Available Off Ramps</u>					
Annual Off-Ramps	5,294,444	40,884,000	140,618,000	270,745,000	314,116,000
Cumulative Off-Ramps	29,425,717	70,309,717	210,927,717	481,672,717	795,788,717





REVIEW RECOMMENDATIONS

REVIEW RECOMMENDATIONS

FUNDING RECOMMENDATIONS

- Fund the MCCP with a combination of debt capital and pay-go to manage unrestricted reserve balances at adequate levels consistent with the Reserve Policy.
- Implement a six-year annual increase to SNWA charges effective **January ~~2021~~ 2022** to:
 1. Phase in an inflationary catch up, and
 2. Adjust for subsequent annual inflation within the six year period:
 - Increase the Infrastructure Charge by ~~4.3~~ **4.6**% annually for six years
 - Increase the Commodity Charge by ~~4.5~~ **4.8**% annually for six years
- Increase the Connection Charge by **9.0**% annually for six years effective **January-March 2021**
- Implement an indexed rate component to the SNWA Connection Charge annually in accordance with the Engineering News Record (ENR) index, effective **January March 2027**.

REVIEW RECOMMENDATIONS

FUNDING RECOMMENDATIONS

- Fund the MCCP with a combination of debt capital and pay-go to manage unrestricted reserve balances at adequate levels consistent with the Reserve Policy.
- Implement a six-year annual increase to SNWA charges ~~effective January 2021~~ to:
 1. Phase in an inflationary catch up, and
 2. Adjust for subsequent annual inflation within the six year period:
 - Increase the Connection Charge by ~~9.0~~ 9.5% annually for six years **effective Mar. 2022**
 - Increase the Infrastructure Charge by ~~4.3~~ 4.6% annually for six years **effective Jan. 2022**
 - Increase the Commodity Charge by ~~4.5~~ 4.8% annually for six years **effective Jan. 2022**
- Implement an indexed rate component to the SNWA Connection Charge annually in accordance with the Engineering News Record (ENR) index, effective ~~January 2027~~ **March 2028**.

REVIEW RECOMMENDATIONS

FUNDING RECOMMENDATIONS

- Implement an indexed rate component to the SNWA Infrastructure and Commodity charges annually, effective **January 2027 2028**, and limit future increases to a floor of 1.5% and a ceiling of 4.5% each year.
 - Infrastructure Charge in accordance with Engineering News Record (ENR) index
 - Commodity Charge in accordance with the Consumer Price Index (CPI)

Do not implement inflationary increases in a year in which the five-year forecast unrestricted reserve balance is projected to be greater than 150% of targeted reserve balances.

- Eliminate the \$16.1 million Connection Charge threshold, require SNWA Connection Charge revenues to fund the pay-go portion of capital expenditures and related debt service, and exclude from funding recurring operating expenses.

A photograph of a large stack of blue pipes, likely for industrial or construction use. The pipes are stacked in a way that creates a strong sense of depth and repetition. The text 'NEXT STEPS' is overlaid in the center in a bold, white, sans-serif font. The overall color palette is dominated by the blue of the pipes, with some lighter blue and white highlights from the lighting.

NEXT STEPS

NEXT STEPS

Sept. 8, 2020	<i>Begin Business Impact Statement public comment process</i>
Sept. 17, 2020	SNWA Board meeting – <i>consider recommendations report</i>
Oct. 15, 2020	SNWA Board meeting - <i>consider BIS and M CCP</i>
Nov. 19, 2020	SNWA Board meeting – <i>Public Hearing on rates</i>
2021	<i>Public Outreach</i>
January 1, 2022	Recommended rate adjustments take effect

OUTREACH ACTIVITIES

- Business Impact Statement
- Civic/chamber outreach
- Trade and professional association outreach
- Web information (SNWA + member agencies)
- Social Media
- Water Smart Living Newsletter (all customers)
- Bill Insert information
- SNWA Water Ways programming
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SOUTHERN NEVADA WATER AUTHORITY
INTEGRATED RESOURCE PLANNING ADVISORY COMMITTEE 2020

RECOMMENDATIONS REPORT

MARCH 2020



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SOUTHERN NEVADA WATER AUTHORITY
Integrated Resource Planning Advisory Committee 2020

RECOMMENDATIONS REPORT

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Executive Summary

The Southern Nevada Water Authority (SNWA) was established in 1991 to address Southern Nevada's unique water needs on a regional basis. Comprised of seven local water and wastewater agencies, the SNWA, as a wholesale water provider, is responsible for water treatment and delivery, acquiring and managing long-term water resources for Southern Nevada, and implementing regional water conservation initiatives. Collectively, SNWA member agencies serve more than 2.2 million residents in Southern Nevada.

To ensure wide-ranging community input into future policy making, the SNWA Board of Directors formed an advisory committee to solicit recommendations on the direction of water policy and help inform its planning efforts. The SNWA has regularly formed advisory committees to obtain community input regarding major policy decisions, dating back to the SNWA's earliest days. Major initiatives regarding regional water facilities, water resources, water quality, capital funding and drought response all benefited from robust community input. Previous committee recommendations have led to the construction of the Low Lake Level Pumping Station, additional conservation measures that have reduced water use throughout the Las Vegas Valley and investments into Colorado River initiatives that have helped elevate Lake Mead water levels.

On October 17, 2019, the SNWA Board of Directors convened a new advisory committee to evaluate and make recommendations on issues of interest to the SNWA's long-term planning efforts. The Integrated Resource Planning Advisory Committee 2020 (IRPAC 2020) met seven times between October 30, 2019 and March 4, 2020. The six month-long process consisted of education on critical transmission infrastructure, water resources, water conservation, out-of-valley water use and regional water rates; an evaluation of water rate adjustment scenarios and financial models; and ultimately the formulation of recommendations for SNWA Board consideration.

This report summarizes the activities and results of the committee process. Section I is an overview of the committee process, Section II reviews committee discussion topics, and Section III summarizes the committee's 22 recommendations.

I. Advisory Committee Process

To coordinate and manage committee meetings, the SNWA retained an independent, neutral facilitator, Terry Murphy of Strategic Solutions, Las Vegas, Nevada. An experienced facilitator familiar with local utility issues, Ms. Murphy encouraged dialogue and interaction among committee members, ensuring all perspectives were heard and considered, and suggested appropriate process tools to assist the committee in problem-solving and other aspects of its deliberations. Members worked together to identify positions that were generally acceptable to the committee as a whole.

The committee consisted of 11 members selected by the SNWA Board of Directors to represent diverse stakeholder groups and offer different perspectives within the SNWA's service territory. Below is a list of the committee members and the stakeholder groups they represented.

Committee Membership

Ken Evans, Urban Chamber of Commerce
Peter Guzman, Latin Chamber of Commerce
Carol Jefferies, Retiree
Andy Maggi, Nevada Conservation League
Paul Moradkhan, Vegas Chamber
Tom Morley, Laborers Local 872
Bob Murnane, Southern Nevada Homebuilders Association
Jonas Peterson, Las Vegas Global Economic Alliance
Phil Ralston, American Nevada Company
John Restrepo, RCG Economics
Virginia Valentine, Nevada Resort Association

IRPAC 2020 meetings were publicly posted in accordance with Nevada's Open Meeting Law. Presentations, audio recordings, and meeting summaries are available on snwa.com.

II. Committee Discussion Review

To develop a framework through which the SNWA can comprehensively support mission-critical efforts in the future, the committee process included education and discussion on major organizational components, including infrastructure and facilities, water resources, water conservation, and financial structure.

The committee received information on prior citizens advisory committees and how their recommendations impacted and guided many of SNWA's important decisions. The committee received an overview of SNWA's history, major responsibilities, initiatives, governance, water supply planning and funding.

Beginning with its first meeting, IRPAC 2020 heard from SNWA staff regarding the water challenges facing the community. Specifically, IRPAC 2020 received information about the limits of the existing regional water system and the need to increase system capacity to enhance reliability and to accommodate additional water demands over the next decade. Additionally, IRPAC 2020 learned about renewable energy requirements, water resource projects, water conservation efforts, and funding needs.

Recognizing the facilities, resources, and conservation efforts needed to reliably deliver water supplies to its customers for decades to come, the SNWA presented IRPAC 2020 with a proposed amendment to its Major Construction and Capital Plan (MCCP) to include projects and activities totaling \$3.166 billion.

Over a series of meetings, SNWA staff detailed what the MCCP amendment would include, its cost and why the projects are necessary for Southern Nevada. The proposed projects were presented to the committee, grouped by topic:

- Facilities
- Water resources
- Water conservation

Facilities

The SNWA maintains a robust regional water system with two treatment plants, a number of pumping stations and reservoirs, and miles of large-diameter lateral pipelines to deliver treated Colorado River water to local water purveyors. These facilities have been constructed and brought online to meet demands and offer redundancy within the system.

The existing regional water system is sufficient to meet present-day demands; however, additional capacity is necessary to meet future demands. A planned water lateral that had been deferred a decade ago during the recession is needed in the near-term to convey Colorado River water to meet projected demands in the region. In addition, the new lateral will provide backup capacity to the 40 percent of the Las Vegas Valley's retail customers that are currently fully reliant upon the existing South Valley Lateral.

Furthermore, the SNWA continues to see projects that propose to convey Colorado River water outside the SNWA's existing service area. Such proposals are only viable if the wastewater from the projects is returned to Lake Mead to maintain return-flow credits. IRPAC 2020 considered recommendations to address this situation. Return-flow credits, the system of returning treated wastewater back to Lake Mead to use again, are a critical component of the SNWA's Water Resource Portfolio and allows Southern Nevada to deliver water in excess of its Colorado River allocation. Water that cannot be returned to Lake

Mead for return-flow credits represents a depletion of water resources, and as such, maximizing existing water resources and extending its use is essential to meet current and future demands. With new development proposed outside of the existing SNWA service area, constructing facilities to return wastewater is an important component to the region's sustainability and water resources.

The projects proposed within the SNWA's MCCP amendment aim to achieve at least one of the following critical planning goals:

- **Capacity:** The ability for the water system to support new customers or increased demands
- **Redundancy:** The ability of the water system to prevent or recover from the failure of another system component, especially in times of outages or emergencies
- **Reliability:** The ability of a water system to consistently serve its customers without service interruptions
- **Resource Maximization:** The ability of a water system to extend, conserve, maximize or make existing water resources more efficient

The facility-related projects proposed for construction within the MCCP include:

- **Horizon Lateral** – A proposed new lateral towards the south end of the regional water system to accommodate projected demands, and to ensure redundancy and reliability in that part of the system. The anticipated facility will have a transmission capacity of more than 400 million gallons per day (MGD).
- **Garnet Valley Water System** – A proposed water system that includes 18 miles of pipeline, a reservoir, pumping stations and forebays to meet the demands of an industrial park in North Las Vegas spanning 11,500 acres.
- **Garnet Valley Wastewater System** – A proposed backbone wastewater system that will include five wastewater lift stations and more than 40 miles of wastewater pipeline to convey Apex's wastewater to a treatment plant, and eventually back to Lake Mead for return-flow credits.
- **Boulder City Wastewater Pipeline** – This project proposes a conveyance system to move Boulder City's wastewater that is currently being sent to evaporation ponds through more than six miles of pipeline to Henderson's wastewater facility, and eventually back to Lake Mead for return-flow credits.
- **Large-scale Solar PV Project** – A proposed solar power project that includes an 8-mile expansion to the SNWA's existing system and can convey at least 50 megawatts of clean energy.
- **Asset management** – Improvements to existing facilities and equipment such as upgrades to aging in-valley water storage and transmission facilities, ozone rehabilitation, filter improvements and final activities related to the SNWA's Low Lake Level Pumping Station.

Water Resources

The SNWA is responsible for acquiring and managing Southern Nevada's water resources and prioritizes those efforts through the development of a Water Resource Plan. The committee was provided information about Southern Nevada's water resources and how they are used today or how they will meet future demands.

The committee reviewed a history of resources, including additional supplies that have been forged through Colorado River partnerships, such as the Brock Reservoir, Intentionally Created Surplus and water banking arrangements. The SNWA is evaluating new opportunities with Colorado River partners to secure additional water supplies through investments in a water recycling project in Southern California or through brackish and ocean water desalination plants. The committee was presented with scenarios of

the timing of future resources with differing hydrologic conditions and demand scenarios, and the impact that new supplies would have on resource planning.

In order to participate in future opportunities, if available, that would further increase Southern Nevada's water resources, the SNWA would need adequate funding to pay for the projects. The proposed M CCP amendment includes at least \$728 million to fund water resource projects, which includes funding for new resource opportunities developed through Colorado River partnerships and money required for ongoing water resources projects, such as Mexico Minute 323, Arizona Water Banking, and Muddy and Virgin River water acquisitions.

Water Conservation

The committee reviewed Southern Nevada's water conservation initiatives and progress towards the regional conservation goal. With climate change, a growing population, and system loss placing upward pressure on progress towards the goal, Southern Nevada is facing an uphill challenge in reducing water use consistently over the planning horizon. Meeting the goal will require new strategies, innovation, more stringent regulations and community-wide participation. The committee considered a wide range of conservation opportunities that, if implemented, would help meet the goal. These strategies ranged from reducing use from evaporative coolers to warm season turf conversions and are further detailed in the committee's conservation recommendations under Section III. The proposed M CCP amendment also includes \$152 million to continue Water Smart Landscaping projects.

Resources and Conservation Contingency

Recognizing that there may be additional resource and conservation opportunities not yet identified within the proposed M CCP amendment that require funding, the committee felt it was prudent to include a contingency amount that could fund additional Colorado River water resource opportunities if they become available or additional conservation programs, such as new incentive programs or technology development/deployment.

Funding

Following a series of meetings on facilities, water resources and conservation, the committee discussed how to fund a proposed M CCP amendment that totaled \$3.166 billion:

<u>Proposed M CCP Funded Projects:</u>	
Facility-related Projects	\$2,123.0 million
Water Supplies	728.0
Conservation	152.3
<u>Resources/Conservation Contingency</u>	<u>162.3</u>
M CCP Expenditures as Proposed	\$3.166 billion

Given the magnitude of the proposed M CCP, additional funding is needed. The committee reviewed all of SNWA's existing funding sources, and concluded that the SNWA Connection Charge, the SNWA Infrastructure Charge and the SNWA Commodity Charge were the most appropriate sources to fund the proposed M CCP as those rates have not kept pace with inflation. The Connection Charge, a charge collected by developers who require new service connections, has not been increased since 2008 during the economic downturn. The SNWA Commodity Charge, a volumetric charge assessed on customer water bills, was last increased in 2017. The Infrastructure Charge, a fixed charge assessed based on meter size, was last increased in 2018 at the recommendation of an advisory committee to fund the Low Lake Level Pumping Station. Since those adjustments, the rates have not kept pace with inflation.

The committee was supportive of a prior committee's recommendation to reduce rate shock and considered how to meet funding requirements and maintain pace with inflation without burdening customers.

The committee was presented with a variety of strategies to fund new capital projects and the members considered the impact to the SNWA's unrestricted reserves and potential impacts to sample customer bills that were selected to represent a subset of the community. The committee's discussions focused around the following considerations:

- *Debt Funding*: How much and at what target should debt be managed to fund the MCCP
- *Phase In*: Over what period of time should inflationary increases be spread
- *Fixed v. Variable Indexing*: Whether the inflationary increases should be set at a fixed rate with the historic average amounts during the first phase-in years or subject to actual annual indexed amounts
- *Connection Charge Revenues*: Removing the \$16.1 million threshold that is currently applied to SNWA Connection Charges or treating Connection Charge revenues differently

The committee reviewed scenarios that met funding requirements through inflationary-based increases. The inflationary increases aimed to (1) catch the existing rates of the Connection, Commodity and Infrastructure charges up to what they would be today had they kept pace with inflation and (2) begin charging today's inflation to ensure that its "buying power" isn't reduced. The model assumed a 2.5 percent annual increase for Consumer Price Indexed rates (Commodity Charge) and a 3 percent annual increase for Engineering News Record increases (Connection and Infrastructure Charges). The committee considered a 5-year or 6-year phase in process, but after discussions, supported a 6-year phase in process to keep the rates lower during that time.

		6 YEAR PHASE-IN						INDEXING
		2021	2022	2023	2024	2025	2026	2027
Connection Charge (ENR)	Catch-Up Inflation	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	3.0%
Commodity Charge (CPI)	Catch-Up Inflation	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%
	Current Year Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	Total	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	2.5%
Infrastructure Charge (ENR)	Catch-Up Inflation	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Total	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	3.0%

At the committee's February meeting, they formulated a set of draft recommendations to take back to their stakeholder groups for initial review. Following the meeting, a draft recommendations report was compiled and provided to the committee. At the March 4, 2020 meeting, they approved their final recommendations and recommendations report.

III. Recommendations

After careful evaluation of the issues and options, the Committee reached consensus on several recommendations, which will be transmitted to the SNWA Board of Directors for consideration and approval.

The 22 recommendations are listed below and grouped by topic.

GENERAL RECOMMENDATIONS

1. Work with community stakeholders to implement IRPAC recommendations.

All of these recommendations and initiatives will require community support, engagement and participation. The committee recognized the importance of involving stakeholders in the development and implementation of these efforts.

MCCP AND FACILITIES

2. Maintain current asset management funding levels and practices to ensure reliable water treatment and transmission in Southern Nevada.

Continued rehabilitation and improvement to SNWA's existing water storage and transmission infrastructure is critical to sustained water system reliability and conservation efforts. The committee recognized the value of uninterrupted service levels and demonstrated a keen interest in moving forward on necessary asset management projects.

3. Pursue projects to meet Nevada's Renewable Portfolio Standard.

Given Nevada's Renewable Portfolio Standard of 50 percent by 2030, the SNWA must pursue additional power resource options. SNWA has the opportunity to enter into a power purchase agreement with a private company that is constructing a large-scale solar photovoltaic energy project. This partnership represents low-cost solar resources for the SNWA and an increase in renewable supplies.

4. Include the candidate projects presented to IRPAC 2020, totaling \$3.166 billion, in the SNWA's Major Construction and Capital Plan (MCCP).

After receiving information about the projects proposed for the MCCP amendment, which includes new facilities, new water supplies and conservation programming, the committee supported moving forward with the projects as proposed. They also supported including a contingency amount to fund Colorado River water resource opportunities or conservation opportunities that may arise.

WATER RESOURCES

5. Pursue emerging water resource opportunities with Colorado River partners to increase Nevada's water supplies, as presented to IRPAC on December 18, 2019.

The committee agreed that funding should be made available for SNWA to capitalize on partnership opportunities with other Colorado River users to secure additional water supplies for the community.

Potential projects include a large-scale water recycling project in Southern California or desalination plants, and these projects were presented to IRPAC at the December 18, 2019 meeting. Given the success of similar projects, this committee felt like this is a worthwhile opportunity that would yield important water resources to meet future demands.

6. Require out-of-valley development to return wastewater to Lake Mead and embed the principles of the SNWA's Out-of-Valley Water Use Policy within municipal codes and Las Vegas Valley Water District (LVVWD) Service Rules.

The SNWA's Out-of-Valley Water Use policy was developed to address and minimize Colorado River water use in areas where it cannot be returned. The committee understood the importance of return-flow credits and supported implementing the tenets of this policy in regional regulations.

CONSERVATION

7. Pursue changes necessary to achieve the SNWA's current water conservation goal of a minimum of 105 GPCD by 2035 and further efforts to achieve additional conservation thereafter.

The committee recognized the importance of meeting the regional conservation goal and how the resource plan changes if further progress is made. With climate change impacts making the goal more challenging, more initiatives are required to meet the goal and continue to pursue additional conservation thereafter.

8. Reduce existing non-functional turf acreage by 50 percent by 2035.

Non-functional turf represents a wasteful use of water resources and covers approximately 5,000 acres within Southern Nevada. The committee supported the organization's efforts to continue to incentivize turf removal and explore new opportunities to accelerate non-functional turf removal to reduce existing non-functional turf acreage by one-half.

9. Embed the principles of the SNWA's Non-Functional Turf Resolution in municipal codes and LVVWD Service Rules.

In July 2019, the SNWA Board of Directors approved a resolution that further refined prohibitions on non-functional turf applications and applied standards to new turf installations to maximize the functionality of future turf installations. These standards included size and slope limitations that have not yet been codified. The committee supported codifying these principles to ensure more sustainable development moving forward.

10. Limit future installations of cool-season turf in public spaces and expedite the conversion of cool-season turf to warm-season turf at existing public facilities.

Water savings can be achieved through the conversion of functional cool season turf to more water-efficient varieties of grass (also known as warm-season turf). The committee was in favor of accelerating conversion of parks and school fields to warm season turf and requiring the use of warm season grasses as functional turf is installed.

11. Implement smart controller technology to automate landscape watering compliance and increase outreach and enforcement efforts.

Compliance with mandatory day of week and time of day watering restrictions saves significant water resources. The increased usage of smart irrigation controller technology can have a significant impact on water use during weather events. Further exploration and implementation of emerging

technology may lead to better compliance with watering restrictions. The committee agreed that future efforts such as smart controller technology, incentives, enforcement, and advertising should be used to maximize compliance with watering restrictions.

12. Pursue implementation of advanced metering infrastructure and develop partnerships and programs to improve the speed of customer leak repairs.

Advanced metering infrastructure (AMI) and technology can help to notify water providers and customers alike of water leaks in near real-time. This type of immediate notification would greatly reduce the time it currently takes for leaks to be detected and repaired, and ultimately reduce water loss. While AMI pilot programs exist throughout the valley, the committee supported continued implementation as quickly as possible.

13. Evaluate changes necessary to reduce current and future consumptive water losses associated with evaporative cooling technology.

Evaporative cooling represents a large consumptive use in Southern Nevada. New technologies such as geothermal cooling and single pass cooling may greatly reduce the amount of water currently being lost by evaporative cooling practices, and additional research is needed to assess how best to deploy and utilize more water efficient cooling technologies. The committee supported continued efforts towards reducing water use in this sector.

14. Establish an efficiency review policy and process for new large water users to encourage efficient development and disincentivize consumptive use.

While the number of customers who use more than 1 million gallons of water per month remains relatively small, an opportunity to reduce water use in this sector does exist. Currently, there is no opportunity for the regional water agency to affect or influence water use on these large properties and implementing a review process would be beneficial to ensure when these properties are constructed that water is being used efficiently.

15. Continue to make investments that will maintain or improve the existing water loss rates among wholesale and retail water purveyors.

Ongoing assessment, repair and rehabilitation of existing water systems is critical in maximizing system efficiencies and reducing water loss. The committee supported maintaining or reducing current water loss levels through the regional and retail water systems.

16. Continue outreach efforts to engage the public and effectuate the changes needed to meet the community's regional conservation goal.

Public outreach is essential to SNWA's conservation programs, especially to increase compliance with the mandatory watering schedule. The committee recommended continuing these efforts to invoke community-wide conservation participation.

FUNDING

17. Fund the MCCP with a combination of debt capital and pay-go to manage unrestricted reserve balances at adequate levels consistent with the Reserve Policy.

The committee evaluated how different debt capital and pay-go scenarios affected reserve targets and funding levels. The committee quickly agreed to not continue evaluating scenarios at a 50 percent debt capital / 50 percent pay-go approach as funding levels were well below target in future

years. Ultimately, the committee supported a flexible approach to maintain adequate reserve balances consistent with the SNWA Board-approved Reserve Policy.

18. Implement a six-year annual increase to SNWA charges effective January 2021 to:

1) Phase-in an inflationary catch up, and

2) Adjust for subsequent annual inflation within the six-year period:

- **Increase the Connection Charge by 9.0% annually for six years**
- **Increase the Infrastructure Charge by 4.3% annually for six years**
- **Increase the Commodity Charge by 4.5% annually for six years**

The SNWA Infrastructure Charge and Commodity Charge had not been increased since they were last adjusted by a previous IRPAC committee and as a result, neither have kept pace with inflation. The SNWA Connection Charge has not been adjusted for more than 10 years, and inflation has increased significantly since that time.

The committee thought it was prudent to (1) catch the existing rates up to what they would have been had they kept pace with inflation, and (2) ensure rates moving forward keep pace with inflation. SNWA staff prepared a table that showed both increases: the catch-up rate and the inflationary rate based on historical averages. Rather than keeping them separate, the committee opted to lock in the rate as proposed for the first six years, and then adjust the rates to reflect increases to inflation, noting that fixing the rate helps budget and planning efforts.

19. Implement an indexed rate component to the SNWA Infrastructure and Commodity charges annually, effective January 2027, and limit future increases to a floor of 1.5% and a ceiling of 4.5% each year.

- **Infrastructure Charge in accordance with Engineering News Record (ENR) index**
- **Commodity Charge in accordance with the Consumer Price Index (CPI)**

Do not implement inflationary increases in a year in which the five-year forecast unrestricted reserve balance is projected to be greater than 150% of targeted reserve balances.

To maintain pace with inflation and avoid rate shock in future years, the committee also recommended that an inflationary index be applied to the SNWA Infrastructure Charge and the SNWA Commodity Charge. The committee recommends collaring those inflationary-based increases to achieve revenue stability and avoid unnecessary customer impacts.

The inflationary index applied to the SNWA Infrastructure Charge is the Engineering News Record, which tracks costs associated with building materials and labor and is appropriate for a charge designed to reflect the costs of constructing and maintaining the water system. The inflationary index applied to the SNWA Commodity Charge is the Consumer Price Index, which measures prices paid by urban consumers on goods and services.

20. Implement an indexed rate component to the SNWA Connection Charge annually in accordance with the ENR index, effective January 2027.

To maintain pace with inflation, the committee recommended that an inflationary index be applied to SNWA Connection Charges after the approved rates are phased in through 2026. The inflation index applied to the Connection Charge is the ENR index, similar to the Infrastructure Charge.

- 21. Eliminate the \$16.1 million Connection Charge threshold, require SNWA Connection Charge revenues to fund the pay-go portion of capital expenditures and related debt service, and exclude from funding recurring operating expenses.**

A previous IRPAC committee made a recommendation to help reduce the reliance on Connection Charge revenues and dedicated Connection Charge revenues in excess of \$16.1 million be restricted to specific funding activities. In the current environment, the committee opted to remove the threshold, but carry over some of the original intent of the previous committee recommendations by explicitly prohibiting spending Connection Charge revenues on recurring operating expenses.

- 22. Provide IRPAC 2020 with an annual update of the funding model and convene the committee as necessary.**

The committee felt it was appropriate to receive an update on activities within the MCCP and the funding model with the understanding that they may need to convene if there are issues or changes that require additional discussion or clarification.

APPENDIX A

Meeting Synopsis

The following provides a brief synopsis of discussion topics for each committee meeting. A summary was developed for each meeting and is available on snwa.com or by contacting the SNWA.

Meeting 1 – *October 30, 2019*: Introduction of committee members, facilitator and key SNWA staff. Review committee process and administrative items. Receive an overview of past SNWA committees; and SNWA's history and key initiatives.

Meeting 2 – *November 20, 2019*: Receive an overview of the SNWA's capital planning efforts; and proposed regional water and power facilities recommended for inclusion in the SNWA's Major Construction and Capital Plan.

Meeting 3 – *December 18, 2019*: Receive an overview of Southern Nevada's water resources and potential new water resources for Southern Nevada that can be developed through Colorado River partnerships.

Meeting 4 – *January 8, 2020*: Receive an overview of Southern Nevada's water conservation efforts and future water conservation initiatives for Southern Nevada. Review initial financial model assumptions.

Meeting 5 – *January 29, 2020*: Overview of SNWA's financial structure and discussion of capital funding scenarios. Review rate model assumptions and sample customer impacts; discuss recommendations.

Meeting 6 – *February 12, 2020*: Review additional rate model assumptions and sample customer impacts. Review and discuss all draft board recommendations.

Meeting 7 – *March 4, 2020*: Finalize recommendations report.

Facility Tour – Committee members were given the option to participate in a facility tour of Southern Nevada's water infrastructure.

APPENDIX B

Rate Models

Pursuant to the committee's recommendation no. 17, they suggested a flexible approach to funding the MCCP with a combination of debt and pay-go capital to manage unrestricted reserve balances at adequate levels consistent with the Reserve Policy. The committee was shown a number of financial model scenarios, and felt comfortable with funding in the range of scenarios 1A and 1B shown below.

Scenario 1A: 100% Debt

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Sources										
Wholesale Delivery Charge	\$ 154,988,470	\$ 160,358,876	\$ 166,230,463	\$ 172,033,155	\$ 177,549,019	\$ 182,881,181	\$ 188,058,845	\$ 194,581,133	\$ 200,999,698	\$ 207,350,154
Infrastructure Charge	170,520,466	181,214,932	192,163,871	203,523,758	215,171,479	227,223,139	238,241,709	248,004,621	257,943,677	268,109,986
Commodity Charge	74,386,380	78,537,480	83,647,413	87,519,093	92,832,884	98,080,382	101,679,562	105,751,149	109,774,868	113,766,626
Connection Charge	76,433,701	72,753,706	70,132,851	70,603,243	67,913,317	67,738,394	66,486,079	63,185,772	59,795,684	57,473,813
Reliability Surcharge	5,945,321	6,093,954	6,246,303	6,402,460	6,562,522	6,726,585	6,894,750	7,067,118	7,243,796	7,424,891
Sales Tax	70,745,456	73,851,408	76,932,314	80,043,468	83,135,195	86,250,132	89,402,154	92,589,561	95,810,503	99,080,829
Investment Income	7,803,906	8,266,071	8,392,321	9,416,919	9,719,699	11,264,645	11,858,325	12,236,554	13,059,576	13,724,909
Groundwater Management Fees	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208
LV Wash Program Fees	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863
Grant Proceeds	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Other Sources	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247
Subtotal	567,943,017	588,195,746	610,864,854	636,661,414	660,003,433	687,283,777	709,740,741	730,535,226	751,747,120	774,050,526
Debt Issuance Proceeds	-	263,476,966	-	467,315,690	-	1,014,210,955	-	966,657,506	-	768,821,585
SNWA Sources	567,943,017	851,672,712	610,864,854	1,103,977,104	660,003,433	1,701,494,732	709,740,741	1,697,192,732	751,747,120	1,542,872,111
Uses										
Water Resource Investments	14,251,600	14,607,890	14,973,087	15,347,414	15,731,100	16,124,377	16,527,487	16,940,674	17,364,191	17,798,296
Energy	35,101,113	36,222,650	35,943,784	37,704,192	38,503,382	40,072,013	41,371,904	42,693,706	43,761,049	44,855,075
Operating Payroll & Related	86,088,533	87,888,453	90,405,926	92,886,486	91,330,327	83,098,601	90,292,333	91,022,144	102,505,100	109,344,076
Operating Expenses	77,569,782	79,509,026	81,496,752	83,534,171	85,622,525	87,763,088	89,957,166	92,206,095	94,511,247	96,874,028
Capital Expenditures	128,409,160	175,164,520	204,929,414	240,661,420	348,747,058	583,520,310	496,631,372	564,880,681	438,048,013	400,329,844
Debt Service	289,681,711	302,215,793	301,532,690	327,276,950	317,161,450	375,990,573	368,063,499	409,370,510	373,512,050	418,319,548
SNWA Uses	631,101,899	695,608,331	729,281,653	797,410,633	897,095,842	1,186,568,962	1,102,843,761	1,217,113,809	1,069,701,649	1,087,520,867
Annual Surplus/(Deficit)	\$ (51,532,578)	\$ 59,485,863	\$ (38,496,674)	\$ 70,495,282	\$ (20,157,838)	\$ 72,970,479	\$ 25,729,301	\$ 66,065,544	\$ 70,762,720	\$ 73,134,594
Reserve Balance	\$ 621,026,217	\$ 680,974,246	\$ 642,603,822	\$ 714,123,702	\$ 694,268,644	\$ 768,784,069	\$ 795,107,050	\$ 861,550,823	\$ 933,136,565	\$ 1,006,936,492
Reserve Target	689,539,356	711,888,799	718,829,240	752,013,554	745,174,607	797,103,714	772,446,854	796,958,813	740,559,239	768,789,618
Excess/(Deficit) of Reserve Target	(68,513,139)	(30,914,553)	(76,225,418)	(37,889,853)	(50,905,963)	(28,319,645)	22,660,196	64,592,010	192,577,326	238,146,874
% of Reserve Target	90%	96%	89%	95%	93%	96%	103%	108%	126%	131%
Debt Coverage Ratio	3.52	3.28	3.55	3.21	3.60	3.07	3.37	3.13	3.63	3.44

APPENDIX B, con't.

Rate Models

Scenario 1B: 75% Debt / 25% Pay-go

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Sources										
Wholesale Delivery Charge	\$ 154,988,470	\$ 160,358,876	\$ 166,230,463	\$ 172,033,155	\$ 177,549,019	\$ 182,881,181	\$ 188,058,845	\$ 194,581,133	\$ 200,999,698	\$ 207,350,154
Infrastructure Charge	170,520,466	181,214,932	192,163,871	203,523,758	215,171,479	227,223,139	238,241,709	248,004,621	257,943,677	268,109,986
Commodity Charge	74,386,380	78,537,480	83,647,413	87,519,093	92,832,884	98,080,382	101,679,562	105,751,149	109,774,868	113,766,626
Connection Charge	76,433,701	72,753,706	70,132,851	70,603,243	67,913,317	67,738,394	66,486,079	63,185,772	59,795,684	57,473,813
Reliability Surcharge	5,945,321	6,093,954	6,246,303	6,402,460	6,562,522	6,726,585	6,894,750	7,067,118	7,243,796	7,424,891
Sales Tax	70,745,456	73,851,408	76,932,314	80,043,468	83,135,195	86,250,132	89,402,154	92,589,561	95,810,503	99,080,829
Investment Income	7,803,906	7,891,893	7,665,989	8,072,221	7,796,944	8,029,720	7,399,507	6,710,080	6,550,171	6,597,700
Groundwater Management Fees	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208	894,208
LV Wash Program Fees	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863	443,863
Grant Proceeds	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Other Sources	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247	5,481,247
Subtotal	567,943,017	587,821,567	610,138,522	635,316,716	658,080,678	684,048,851	705,281,923	725,008,752	745,237,715	766,923,317
Debt Issuance Proceeds	-	197,607,724	-	350,486,767	-	760,658,217	-	724,993,129	-	576,616,189
SNWA Sources	567,943,017	785,429,292	610,138,522	985,803,483	658,080,678	1,444,707,068	705,281,923	1,450,001,881	745,237,715	1,343,539,506
Uses										
Water Resource Investments	14,251,600	14,607,890	14,973,087	15,347,414	15,731,100	16,124,377	16,527,487	16,940,674	17,364,191	17,798,296
Energy	35,101,113	36,222,650	35,943,784	37,704,192	38,503,382	40,072,013	41,371,904	42,693,706	43,761,049	44,855,075
Operating Payroll & Related	86,088,533	87,888,453	90,405,926	92,886,486	91,330,327	83,098,601	90,292,333	91,022,144	102,505,100	109,344,076
Operating Expenses	77,569,782	79,509,026	81,496,752	83,534,171	85,622,525	87,763,088	89,957,166	92,206,095	94,511,247	96,874,028
Capital Expenditures	128,409,160	175,164,520	204,929,414	240,661,420	348,747,058	583,520,310	496,631,372	564,880,681	438,048,013	400,329,844
Debt Service	289,681,711	298,554,121	297,871,018	316,913,727	306,798,227	350,950,838	343,023,764	370,244,970	334,386,509	367,950,111
SNWA Uses	631,101,899	691,946,659	725,619,981	787,047,411	886,732,620	1,161,529,227	1,077,804,026	1,177,988,269	1,030,576,108	1,037,151,430
Annual Surplus/(Deficit)	\$ (51,532,578)	\$ 63,147,535	\$ (100,704,244)	\$ 80,858,504	\$ (126,623,538)	\$ 98,010,214	\$ (202,783,703)	\$ 105,191,084	\$ (131,776,116)	\$ 123,504,032
Reserve Balance	\$ 621,026,217	\$ 684,261,739	\$ 583,331,592	\$ 664,596,328	\$ 537,697,513	\$ 635,940,503	\$ 432,526,588	\$ 537,028,244	\$ 405,092,219	\$ 528,643,780
Reserve Target	689,539,356	708,227,127	715,167,568	741,650,332	734,811,385	772,063,979	747,407,119	757,833,273	701,433,699	718,420,180
Excess/(Deficit) of Reserve Target	(68,513,139)	(23,965,388)	(131,835,976)	(77,054,005)	(197,113,872)	(136,123,477)	(314,880,531)	(220,805,028)	(296,341,480)	(189,776,400)
% of Reserve Target	90%	97%	82%	90%	73%	82%	58%	71%	58%	74%
Debt Coverage Ratio	3.52	3.32	3.60	3.12	3.56	2.83	3.22	2.47	3.06	2.45

APPENDIX C

Approved Rate Impact Table

		2021	2022	2023	2024	2025	2026	2027 ➡
Connection Charge (ENR)	Catch-Up Inflation	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	Inflation Rate
	Total	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	Inflation Rate
Commodity Charge (CPI)	Catch-Up Inflation	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	0.0%
	Current Year Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	Inflation Rate
	Total	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	Inflation Rate
Infrastructure Charge (ENR)	Catch-Up Inflation	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	0.0%
	Current Year Inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	Inflation Rate
	Total	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	Inflation Rate

APPENDIX D

Projected Average Monthly Bills for Sample Customers

CUSTOMER TYPE	CURRENT BILL 2021	6 YEAR PHASE-IN						INDEXING
		NEW 2021	NEW 2022	NEW 2023	NEW 2024	NEW 2025	NEW 2026	NEW 2027
Single Family Residential – Typical	\$42.49	\$43.20	\$44.57	\$45.97	\$47.45	\$49.03	\$50.70	\$52.11
Single Family Residential – High	94.90	95.88	98.65	101.48	104.38	107.62	110.98	113.93
1" Single Family Residential – Typical	106.72	108.63	112.12	115.67	119.42	123.47	127.72	131.26
1" Single Family Residential - High	365.82	368.83	379.18	389.81	400.62	412.64	425.06	436.22
Mobile Home <i>Boulder Cascade</i>	4,874.16	4,954.32	5,102.56	5,253.06	5,421.02	5,609.51	5,800.60	5,959.52
High Rise (Residential) <i>Queensridge Place</i>	15,261.20	15,435.37	15,851.38	16,272.58	16,708.59	17,199.80	17,704.19	18,139.69
Office Park <i>Desert Canyon</i>	1,838.74	1,847.56	1,874.84	1,902.36	1,930.33	1,962.47	1,995.09	2,024.06
Resort and Hotel <i>Bellagio</i>	130,055.16	130,883.13	134,463.28	138,053.05	141,664.55	145,892.72	150,139.63	154,006.28
Restaurant <i>Lawry's</i>	2,123.17	2,137.15	2,179.96	2,223.09	2,266.99	2,317.39	2,368.57	2,413.95
Retail Complex (Enclosed) <i>Fashion Show Mall</i>	29,205.80	29,474.38	30,309.09	31,150.14	32,005.37	32,988.84	33,987.07	34,872.99
School <i>Palo Verde HS</i>	12,719.18	12,818.98	13,154.06	13,491.20	13,833.11	14,228.05	14,627.92	14,985.19
Municipal Park <i>All American</i>	9,269.85	9,364.34	9,621.71	9,881.70	10,147.46	10,450.43	10,759.06	11,029.48
Hospital <i>Sunrise Hospital</i>	29,071.76	29,286.73	30,077.78	30,877.13	31,683.90	32,612.60	33,552.73	34,399.99
Locals Hotel <i>Palace Station</i>	31,746.85	32,120.27	33,055.87	34,002.84	34,972.64	36,073.31	37,193.20	38,165.98
Industrial <i>Brady Linen</i>	44,809.18	45,134.80	46,357.94	47,586.84	48,826.24	50,267.27	51,719.34	53,028.81
Apartment Complex <i>Foothill Village</i>	15,176.20	15,253.93	15,653.56	16,069.11	16,486.45	16,947.07	17,424.55	17,866.33
Warehouse <i>Baldwin Motor Sports</i>	567.86	570.51	574.65	578.88	583.37	588.20	593.24	597.34
Strip Mall (Large) <i>Rhodes Ranch Town Center</i>	10,834.21	10,946.43	11,217.66	11,493.49	11,776.52	12,094.30	12,419.77	12,701.74
Strip Mall (Small) <i>Southwest Marketplace</i>	6,402.97	6,446.70	6,600.88	6,760.03	6,921.45	7,100.22	7,285.30	7,452.05
Higher Education <i>UNLV</i>	115,325.84	116,337.21	119,581.17	122,848.25	126,165.36	129,990.58	133,858.26	137,301.41

APPENDIX E

SNWA Connection Charges

CUSTOMER TYPE – RESIDENTIAL	CURRENT CHARGE	6 YEAR PHASE-IN						INDEXING
		NEW 2021	NEW 2022	NEW 2023	NEW 2024	NEW 2025	NEW 2026	NEW 2027
5/8" residential meter size	\$4,870	\$5,308	\$5,786	\$6,307	\$6,875	\$7,494	\$8,168	\$8,413
3/4" residential meter size	4,870	5,308	5,786	6,307	6,875	7,494	8,168	8,413
1" residential meter size	9,610	10,475	11,418	12,446	13,566	14,787	16,118	16,602
1.5" residential meter size	19,170	20,895	22,776	24,826	27,060	29,495	32,150	33,115
2" residential meter size	30,680	33,441	36,451	39,732	43,308	47,206	51,455	52,999

Rates based on factors other than meter size

Residential: Individually Metered more than 8 Units per acre & Mobile Homes (per Dwelling Unit)	\$3,400	\$3,706	\$4,040	\$4,404	\$4,800	\$5,232	\$5,703	\$5,874
Residential: Master Metered more than 8 Units per acre & Mobile Homes (per Dwelling Unit)	3,400	3,706	4,040	4,404	4,800	5,232	5,703	5,874

CUSTOMER TYPE – NON-RESIDENTIAL	CURRENT CHARGE	6 YEAR PHASE-IN						INDEXING
		NEW 2021	NEW 2022	NEW 2023	NEW 2024	NEW 2025	NEW 2026	NEW 2027
5/8" non-residential meter size	\$4,870	\$5,308	\$5,786	\$6,307	\$6,875	\$7,494	\$8,168	\$8,413
3/4" non-residential meter size	4,870	5,308	5,786	6,307	6,875	7,494	8,168	8,413
1" non-residential meter size	9,610	10,475	11,418	12,446	13,566	14,787	16,118	16,602
1.5" non-residential meter size	19,170	20,895	22,776	24,826	27,060	29,495	32,150	33,115
2" non-residential meter size	64,260	70,043	76,347	83,218	90,708	98,872	107,770	111,003
3" non-residential meter size	237,900	259,311	282,649	308,087	335,815	366,038	398,981	410,950
4" non-residential meter size	353,100	384,879	419,518	457,275	498,430	543,289	592,185	609,951

Rates based on factors other than meter size

Non-Residential: 6" and Larger, excluding Hotels, Motels, Golf Courses, and Laundries (Based on Annual Usage in 1,000 gallons)	\$29.20	\$31.83	\$34.69	\$37.81	\$41.21	\$44.92	\$48.96	\$50.43
Hotels & Motels (per Room)	2,780	3,030	3,303	3,600	3,924	4,277	4,662	4,802
Golf Course (per Acre)	45,640	49,748	54,225	59,105	64,424	70,222	76,542	78,838
RV Parks (per Space)	1,380	1,504	1,639	1,787	1,948	2,123	2,314	2,383

APPENDIX F

Total Capital Cost Assumptions

Horizon Lateral	\$1,596.7 million
Garnet Valley Water System	129.8
Garnet Valley Wastewater System	120.0
Boulder City Wastewater System	26.0
Solar PV Project	20.8
Asset Management	<u>229.7</u>
Total MCCP Facility Projects	\$2,123.0
Future Water Supplies	587.7
Virgin & Muddy River Water	98.4
Minute 323	36.4
Arizona Water Banking	<u>5.5</u>
Total MCCP Water Supplies	\$728.0
Water Smart Landscaping	152.3
Resources/Conservation Contingency	<u>162.3</u>
TOTAL MCCP EXPENDITURES AS PROPOSED	\$3,165.6
Operating Capital	176.7
Capital Equipment	50.0
Lower Las Vegas Wash	<u>122.5</u>
TOTAL CAPITAL	\$3,514.8 million*

** Amount shown above in today's dollars*