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NOTICE REGARDING (COVID-19)

Before public comments are considered, the record will reflect that pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 19, 2020, this meeting will be conducted by teleconference only.



Call to Order

Board of Directors Workshop - Engineering
Tuesday, February 9, 2021

Chairperson – Director Harrison
Vice-Chair – Director Hayes



Introductions

Following the introduction of Directors and District staff, participants may use this time to state their name and agency/affiliation in order to be included in the formal record of attendees.



Public Comment

Any person may address the Board on matters within its jurisdiction.

Please use the chat feature on the Zoom toolbar or digitally raise your hand to let the moderator know you would like to make a comment.



Summary of Previous Meeting (Pg. 3)

Board of Directors Workshop – Engineering
January 12, 2021



Presentation Item 4.1 (Pg. 11)

Chris Jones, MESM– Project Manager II/ Biological Resources

Presentation of 2020 Results of Riparian Bird Surveys on
Behalf of the Upper Santa Ana River HCP

Staff Recommendation
Receive and file

Least Bell's Vireo (LBVI) Distribution, Abundance, and Breeding Ecology in the Upper Santa Ana River



Presenter: Anthony Locatelli

Melody Aimar, Allyson Beckman, Jess Burton, Jenna Carpenter, Florence Chan, PJ Falatek, Collin Farmer, Cameron MacBeth and Dick Zembal



Outline

Intro - LBVI Biology

LBVI Monitoring in Upper Santa Ana River

Brown-headed Cowbird (BHCO) Removal (Alternate Funding)

Conservation Issues



Least Bell's Vireo (*Vireo bellii pusillus*; LBVI)

Inhabits Riparian Vegetation

- Large population along Santa Ana River (SAR)
- Requires trees and shrubs for foraging and nesting

Endangered (State and Federal)

- Habitat loss
- Brown-headed Cowbird (*Molothrus ater*) parasitism

Photo by PJ Falatek



Outline

Intro - LBVI Biology

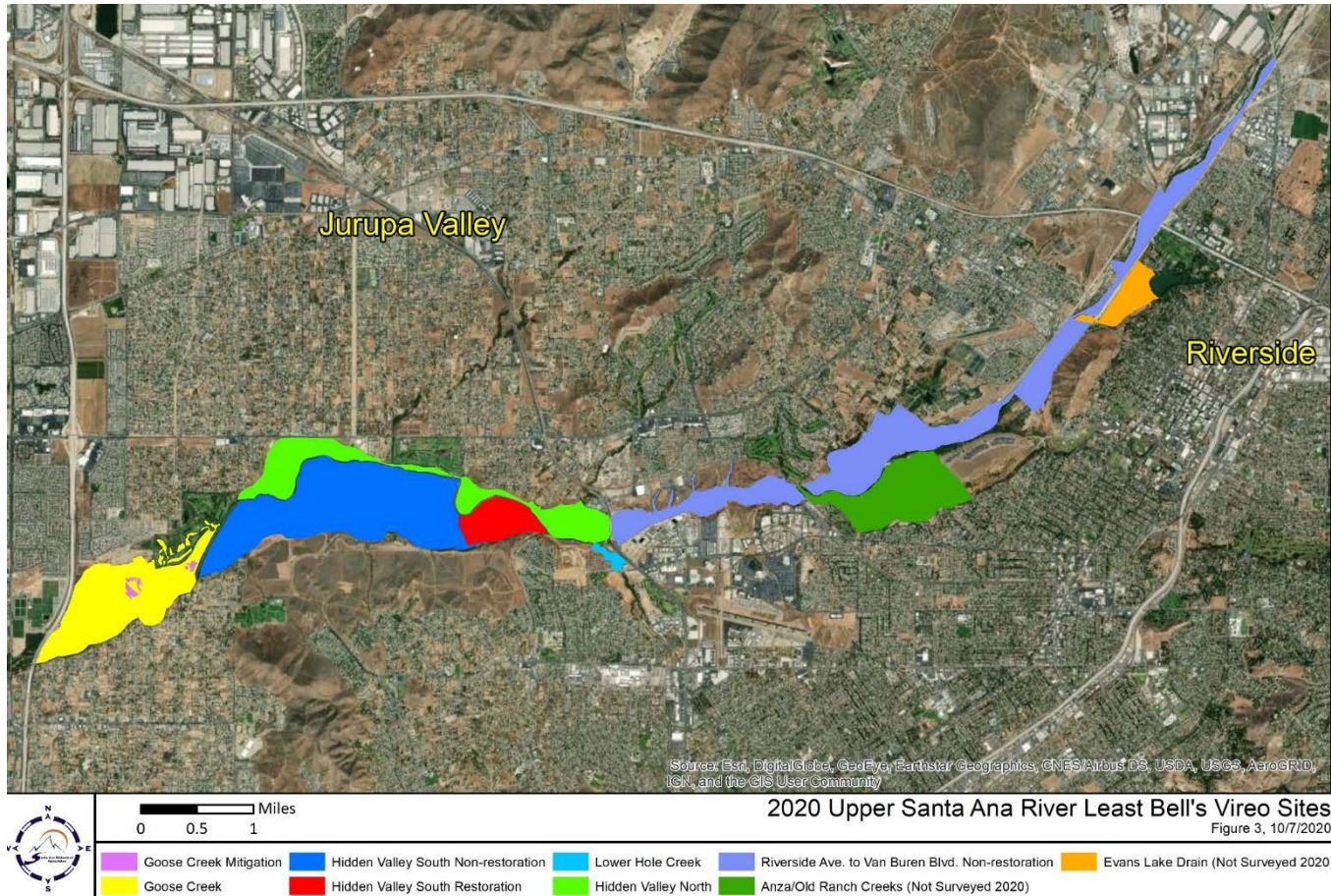
LBVI Monitoring in Upper Santa Ana River

Brown-headed Cowbird (BHCO) Removal (Alternate Funding)

Conservation Issues



LBVI Monitoring in Upper Santa Ana River - 2020 Sites



LBVI Monitoring in Upper Santa Ana River - Methods

Abundance

≥ 3 Surveys to quantify number of territories

Reproduction Monitoring

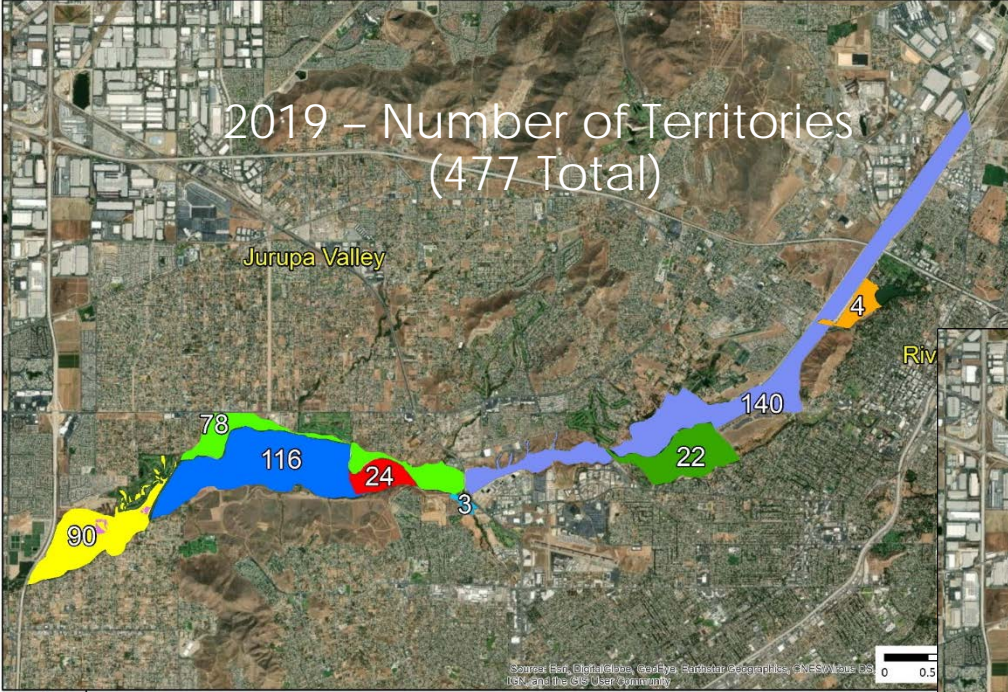
Individual territories visited ~once per week to:

- Survey for females
- Search for nests
- Monitor nests
- Survey for fledglings

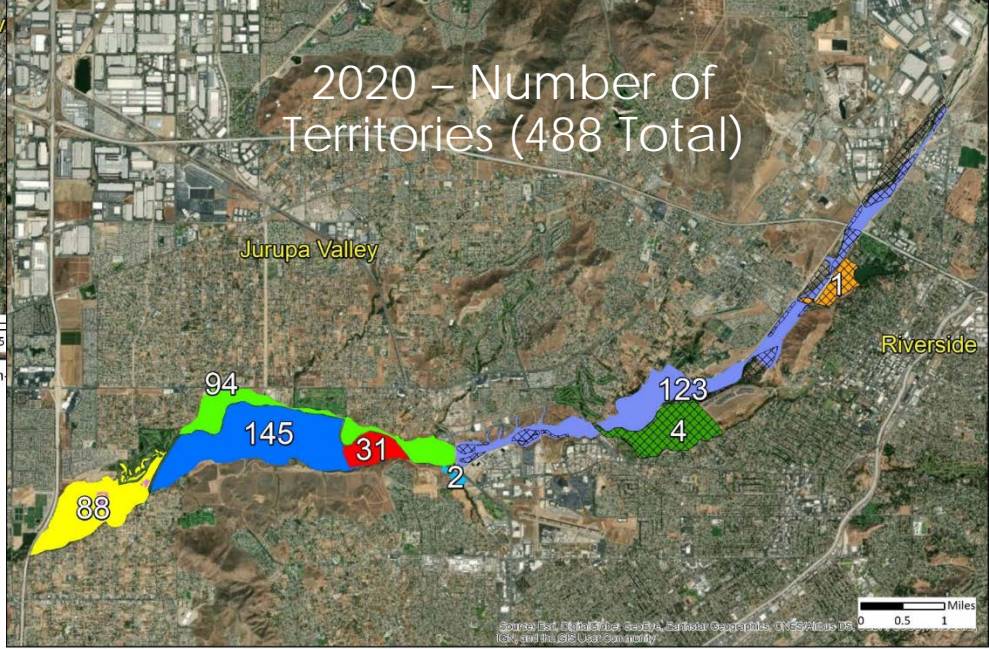


LBVI Monitoring in Upper SAR

2019 – Number of Territories (477 Total)



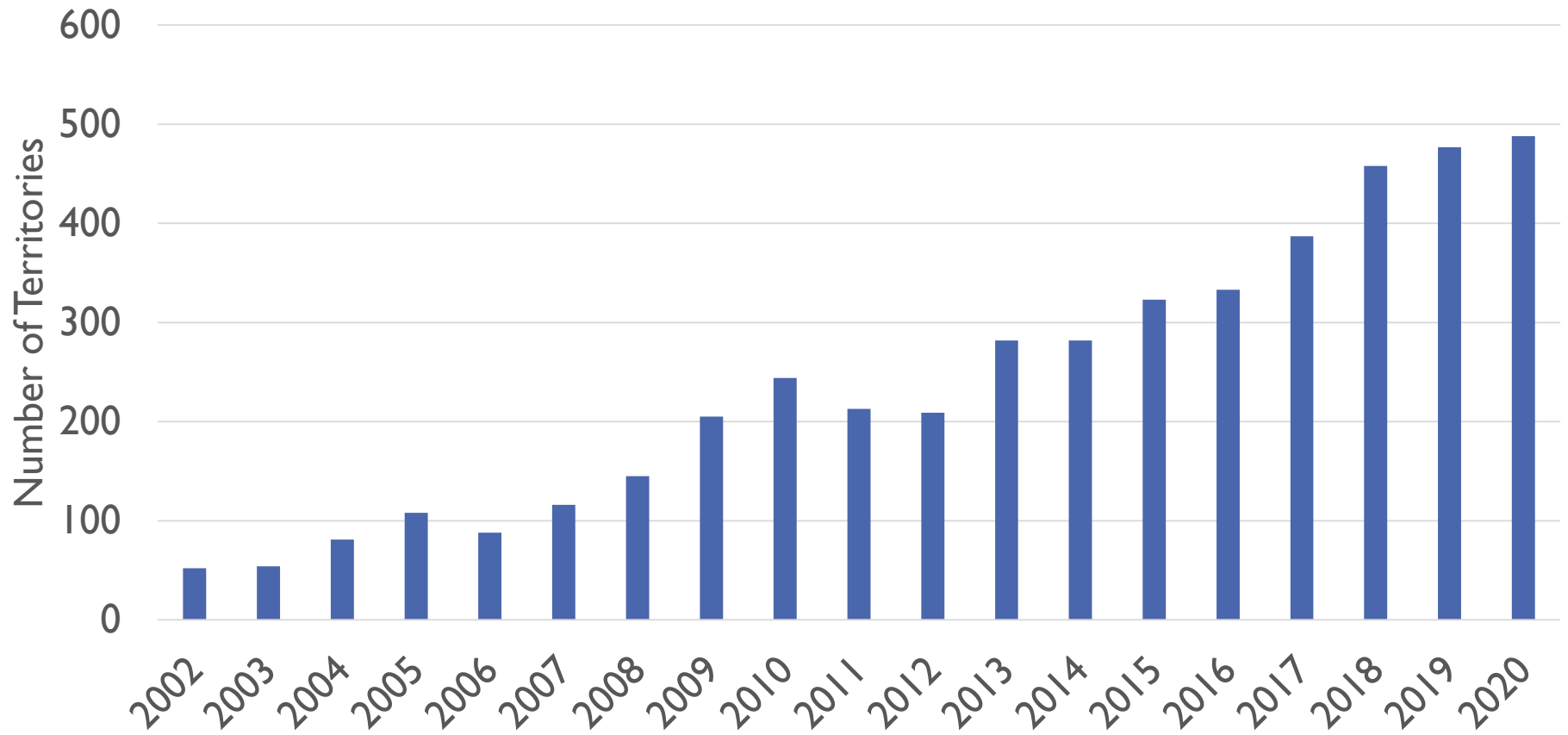
2020 – Number of Territories (488 Total)



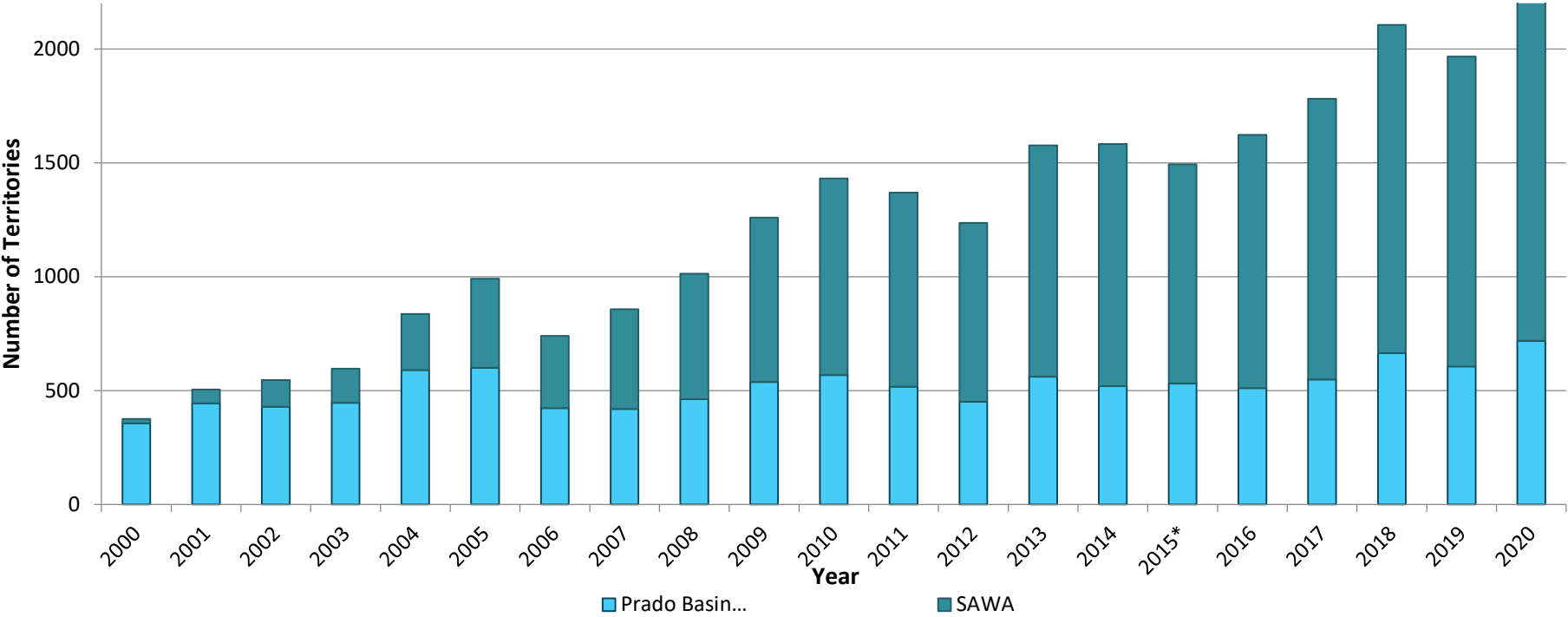
- Goose Creek Mitigation
- Hidden Valley South Restoration
- Riverside Ave. to Van Buren Blvd. Non-restoration
- Goose Creek
- Lower Hole Creek
- Anza/Old Ranch Creeks
- Hidden Valley South Non-restoration
- Hidden Valley North
- Evans Lake Drain

- Goose Creek Mitigation
- Hidden Valley South Restoration
- Riverside Ave. to Van Buren Blvd. Non-restoration
- Goose Creek
- Lower Hole Creek
- Anza/Old Ranch Creeks (Not Surveyed 2020)
- Hidden Valley South Non-restoration
- Hidden Valley North
- Evans Lake Drain (Not Surveyed 2020)
- Access/Safety Issues

LBVI Monitoring in Upper SAR 2002-2020 – Number of Territories



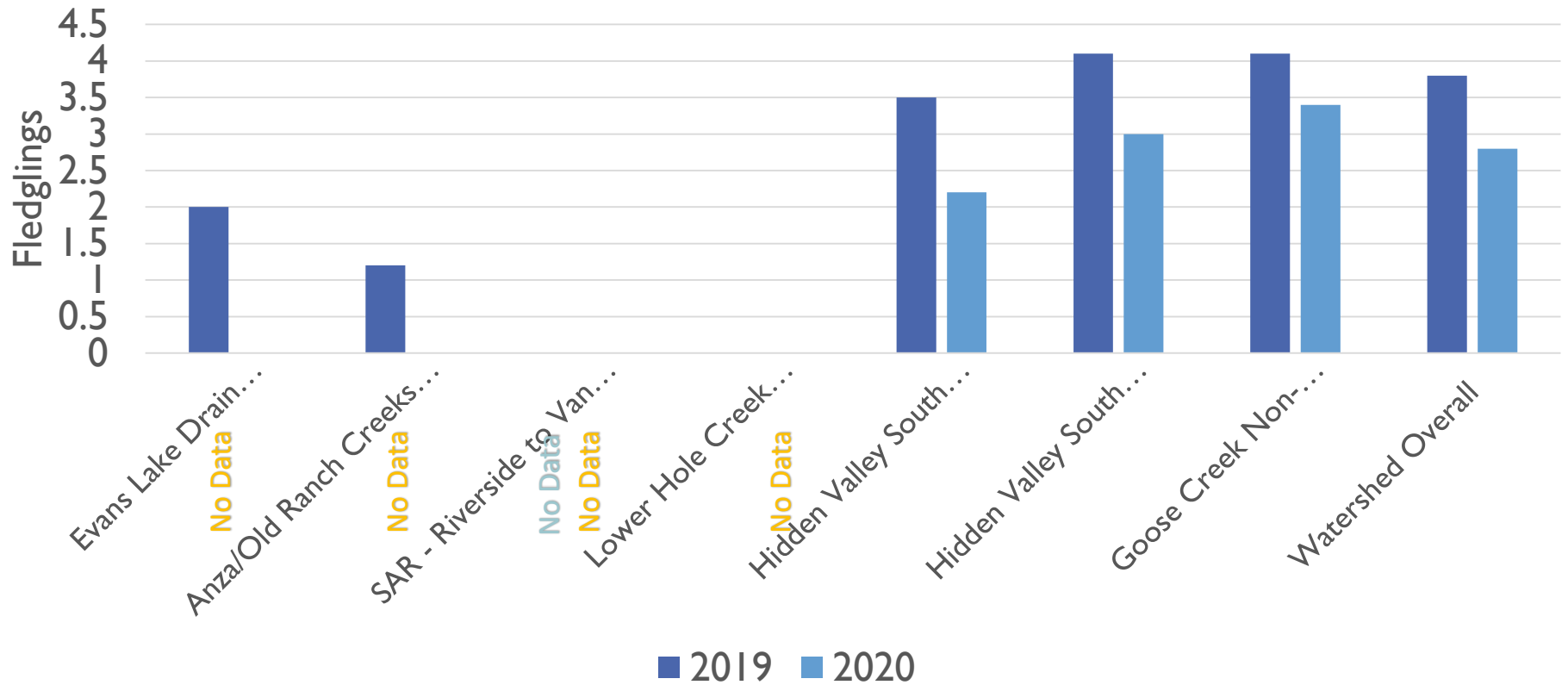
LBVI Monitoring Santa Ana Watershed 2000-2020 - Number of Territories



*Monitoring effort in 2015 reduced from previous years.

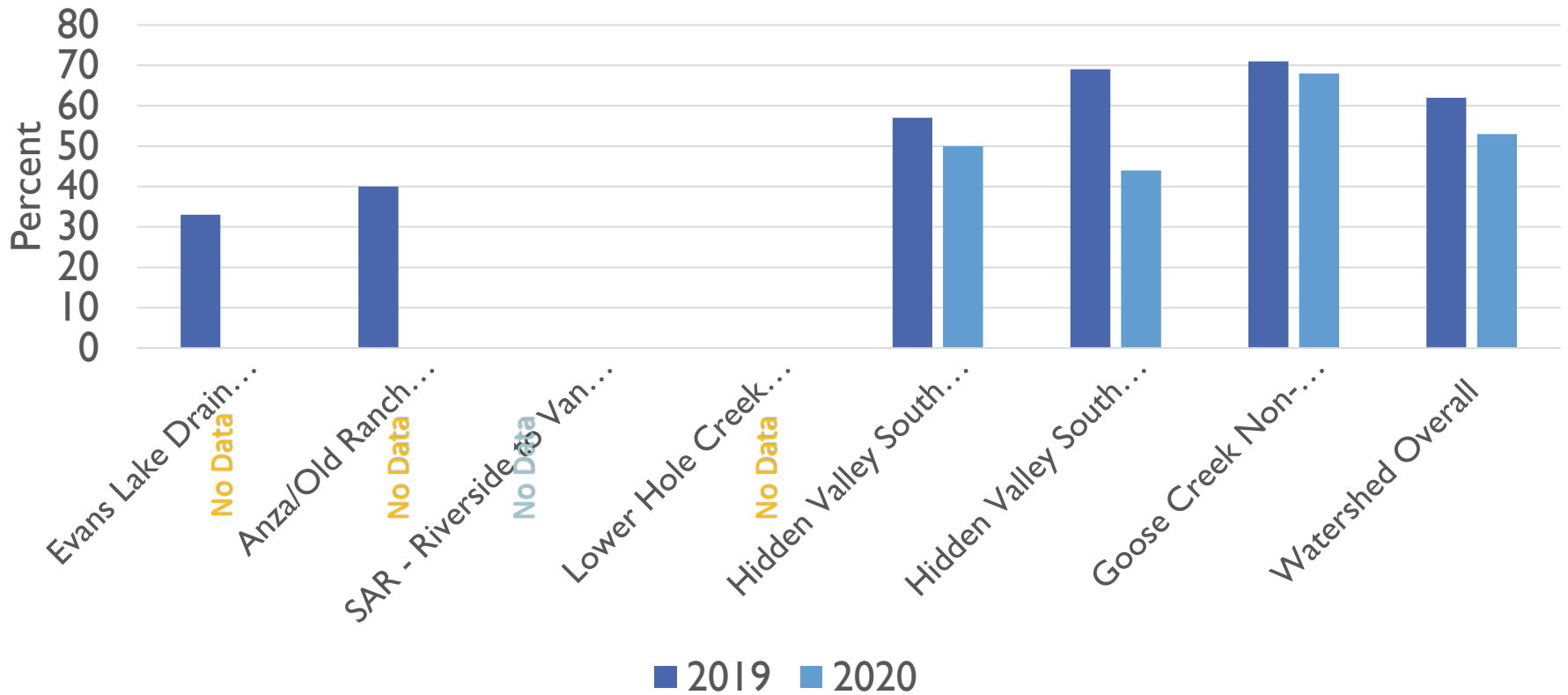
LBVI Monitoring in Upper SAR 2020

Average Number of Fledglings Produced by Well-monitored Pairs



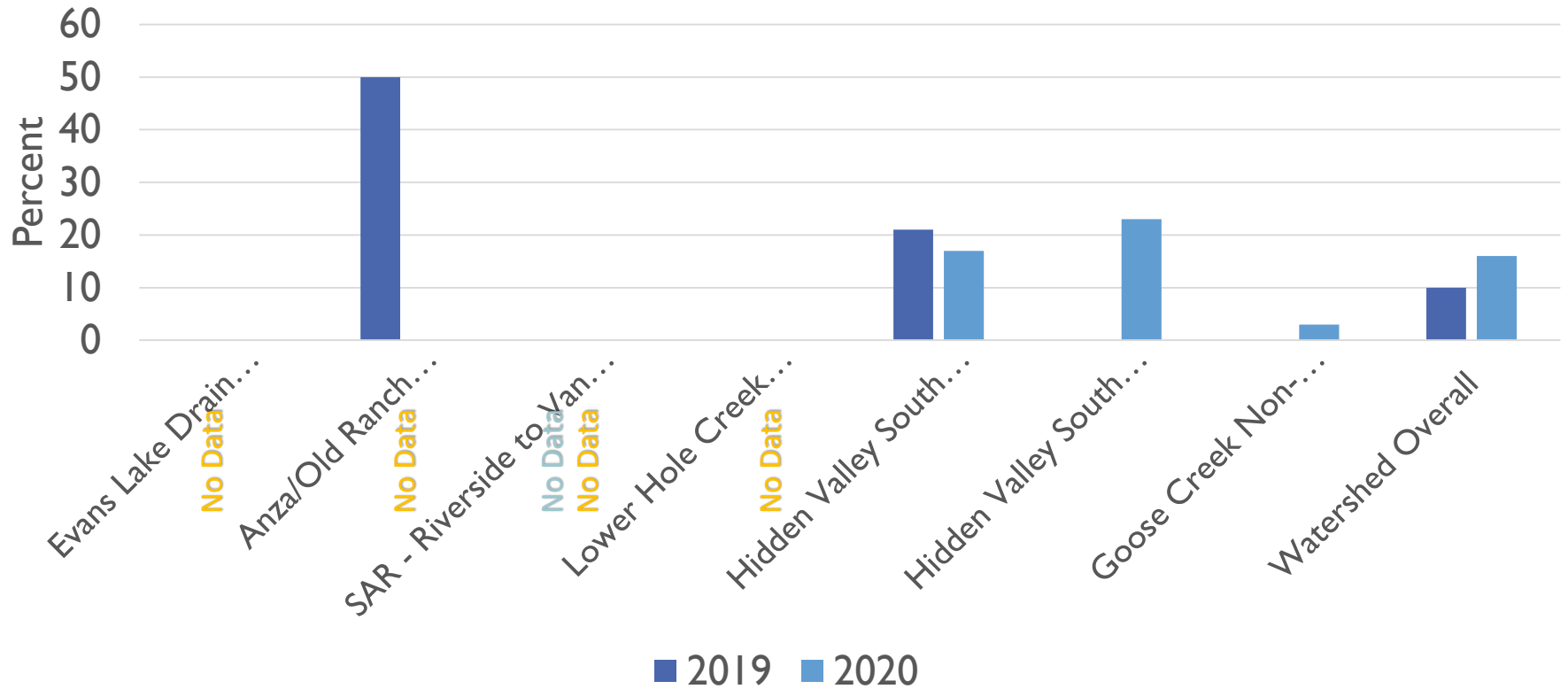
LBVI Monitoring in Upper SAR 2020

Apparent Nest Success



LBVI Monitoring in Upper SAR 2020

Parasitism Rate



Outline

Intro - LBVI Biology

LBVI Monitoring in Upper Santa Ana River

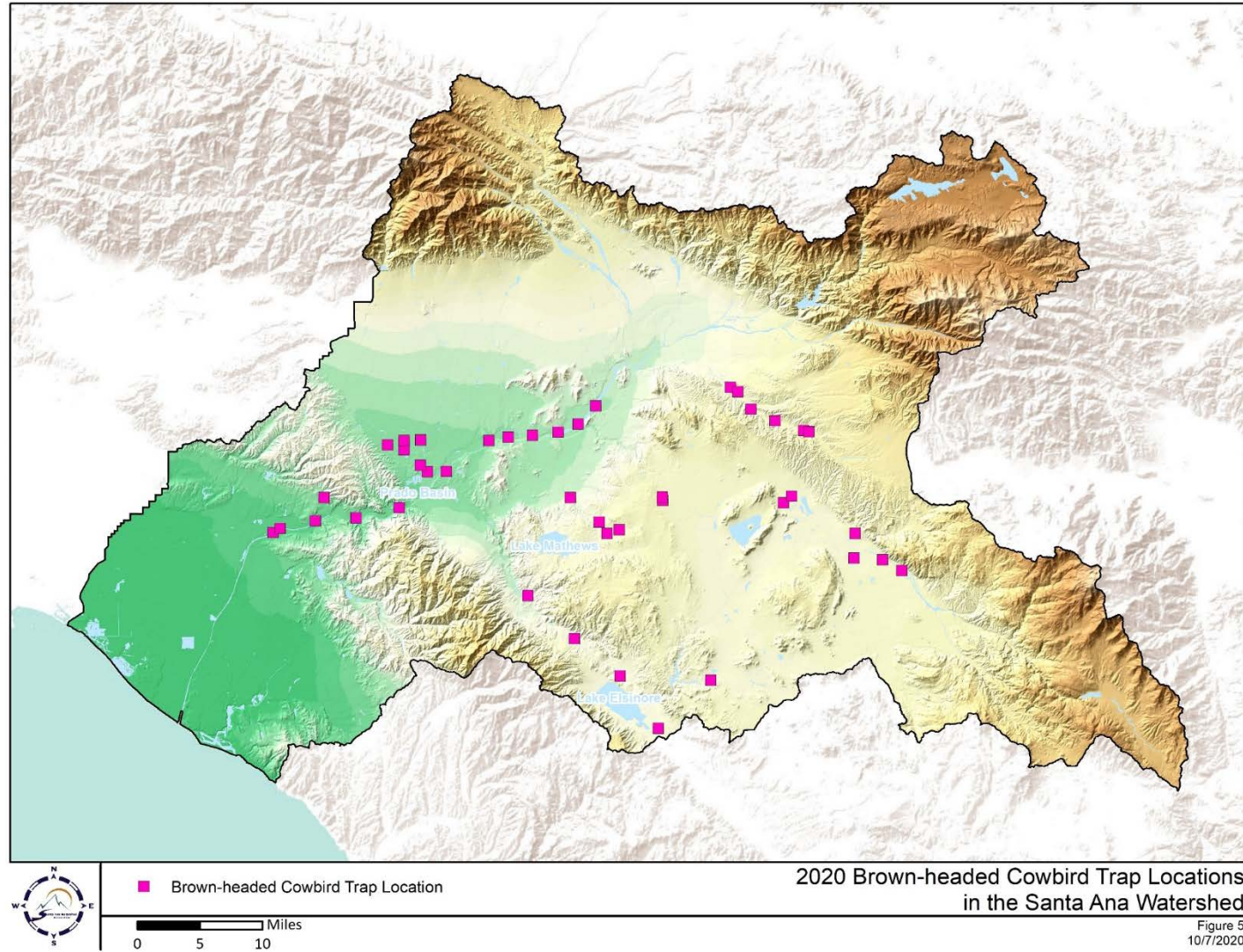
Brown-headed Cowbird (BHCO) Removal (Alternate Funding)

Conservation Issues



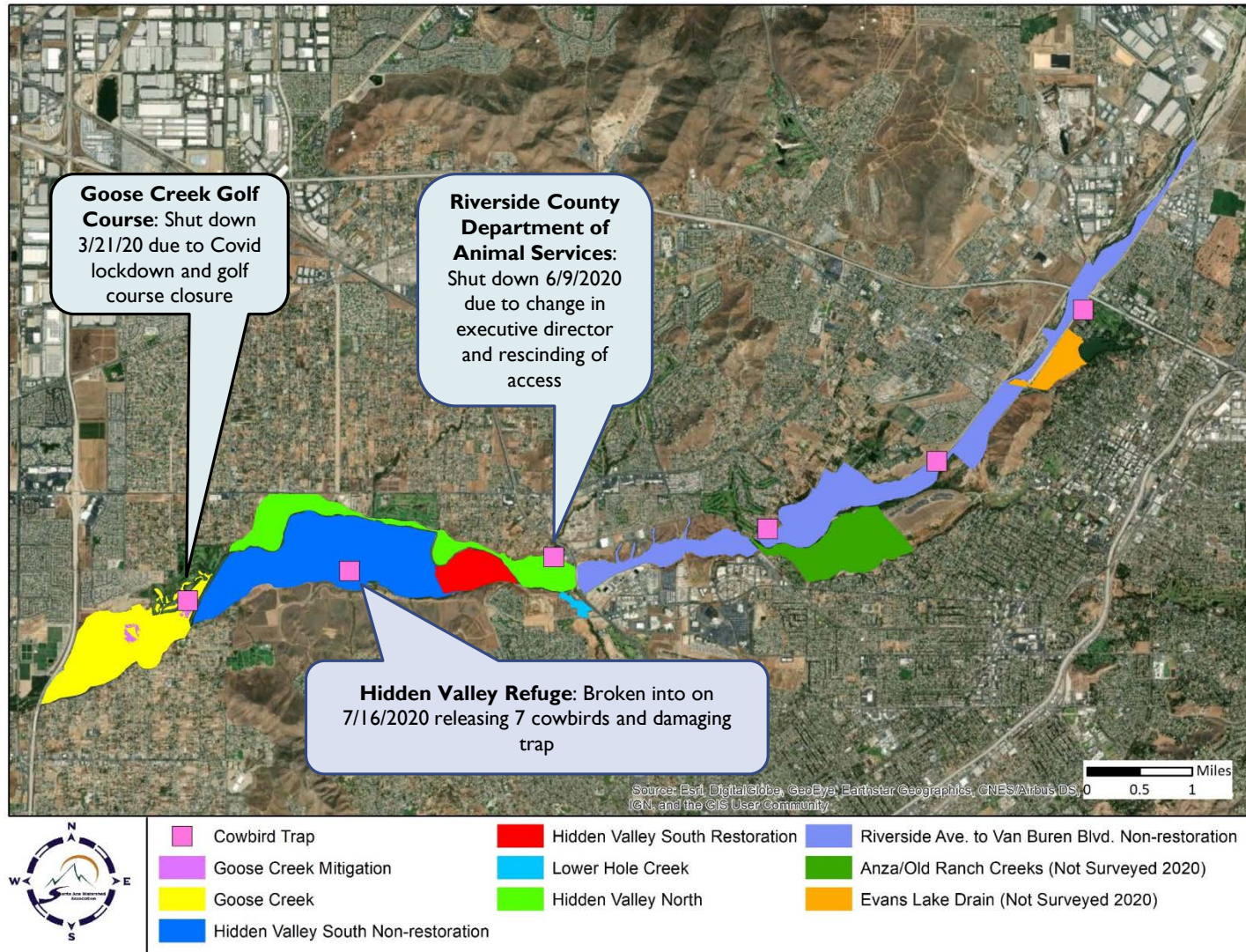
BHCO Removal

- 44 Traps in 2020

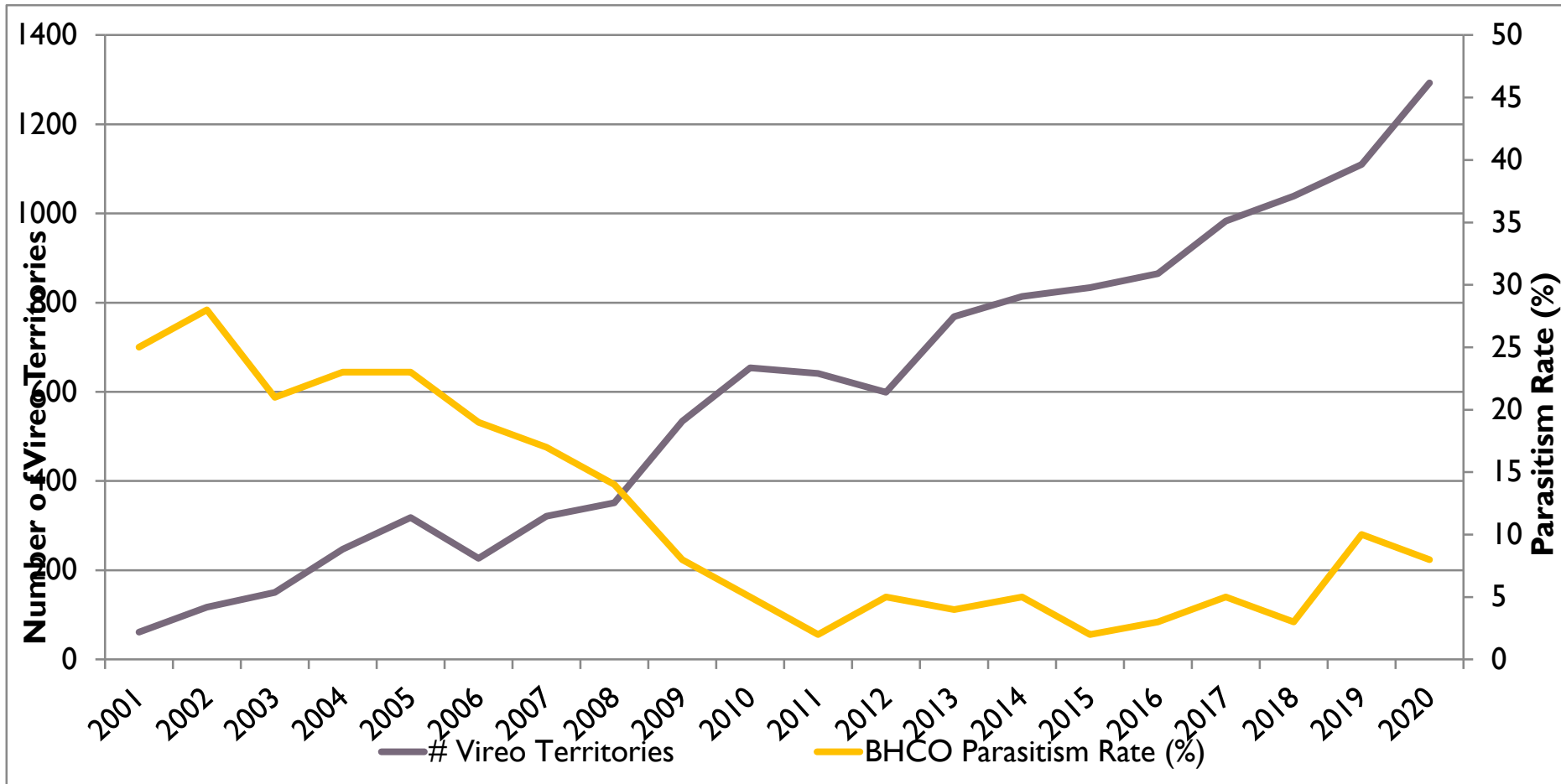


BHCO Removal

- 39 BHCO removed from Upper Santa Ana River in 2020



Santa Ana Watershed 2001-2020 Number of Territories & Parasitism Rate



Outline

Intro - LBVI Biology

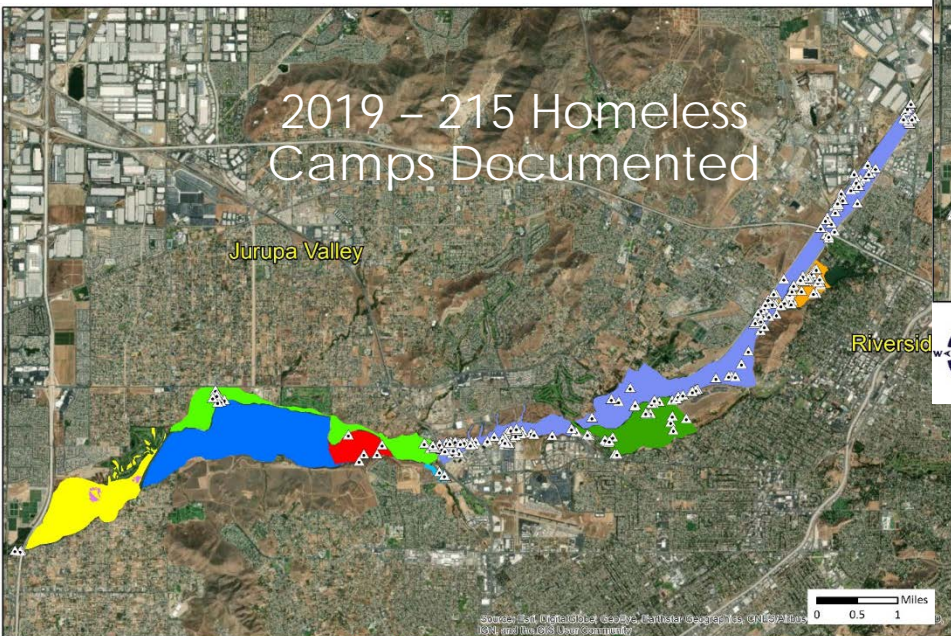
LBVI Monitoring in Upper Santa Ana River

Brown-headed Cowbird (BHCO) Removal (Alternate Funding)

Conservation Issues



Conservation Issues



Number of camps in 2020 most likely underestimated due to access/safety issues regarding COVID-19



Conservation Issues



Conservation Issues



Conservation Issues



Questions?



Funding Acknowledgements: San Bernardino Valley Municipal Water District, Inland Empire Resource Conservation District, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers



Discussion Item 5.1 (Pg. 35)

Cindy Saks, CPA-CFO / Deputy General Manager

Quarterly Investment Portfolio Update with PFM Asset Management

Staff Recommendation

Receive and file the portfolio update report from PFM



San Bernardino Valley Municipal Water District

Portfolio Update

Quarter Ending December 31, 2020

Richard Babbe, CCM, Senior Managing Consultant

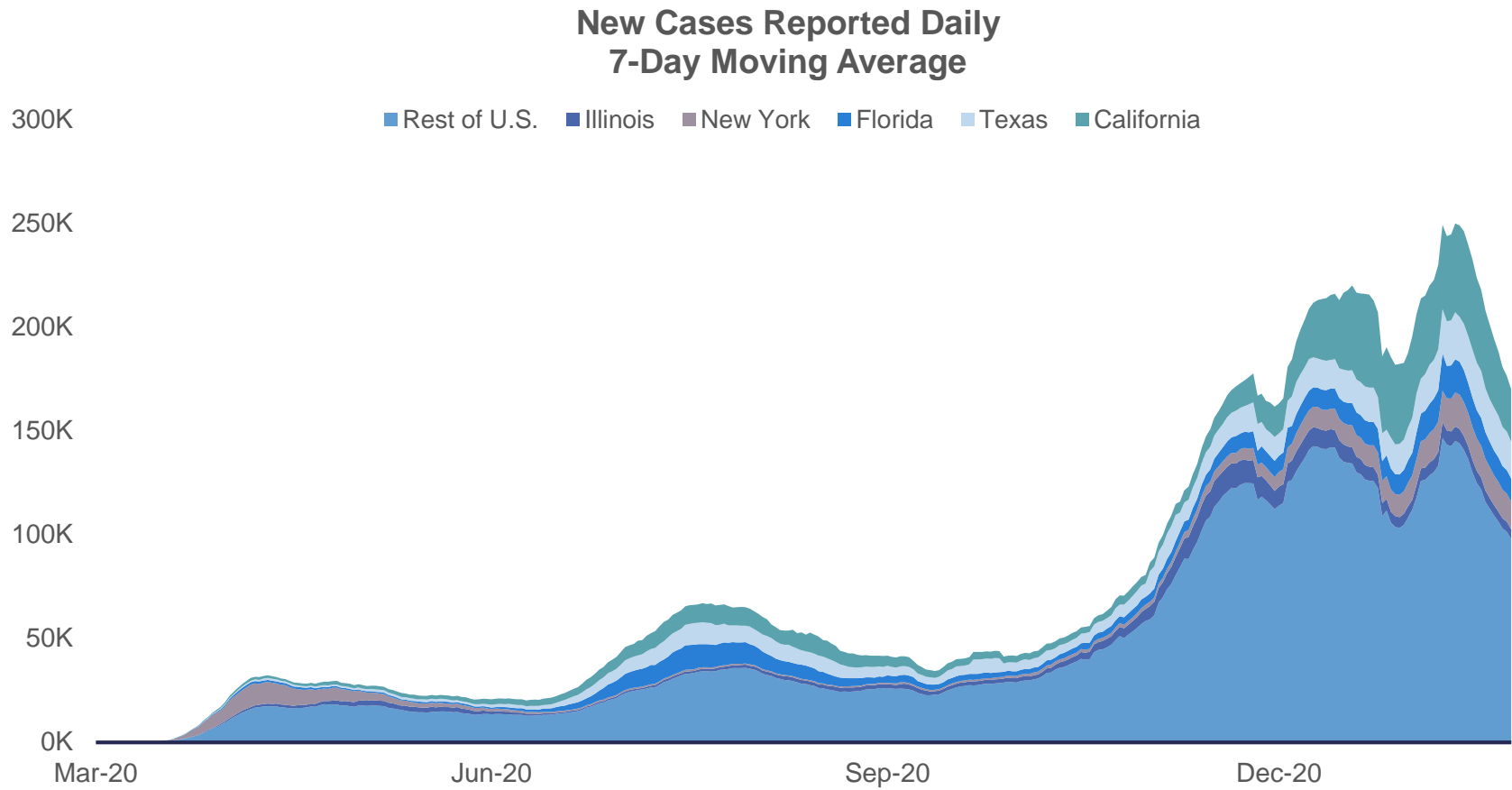
PFM Asset Management
LLC

601 South Figueroa Street,
Suite 4500
Los Angeles, CA 90017

(949) 230-6896

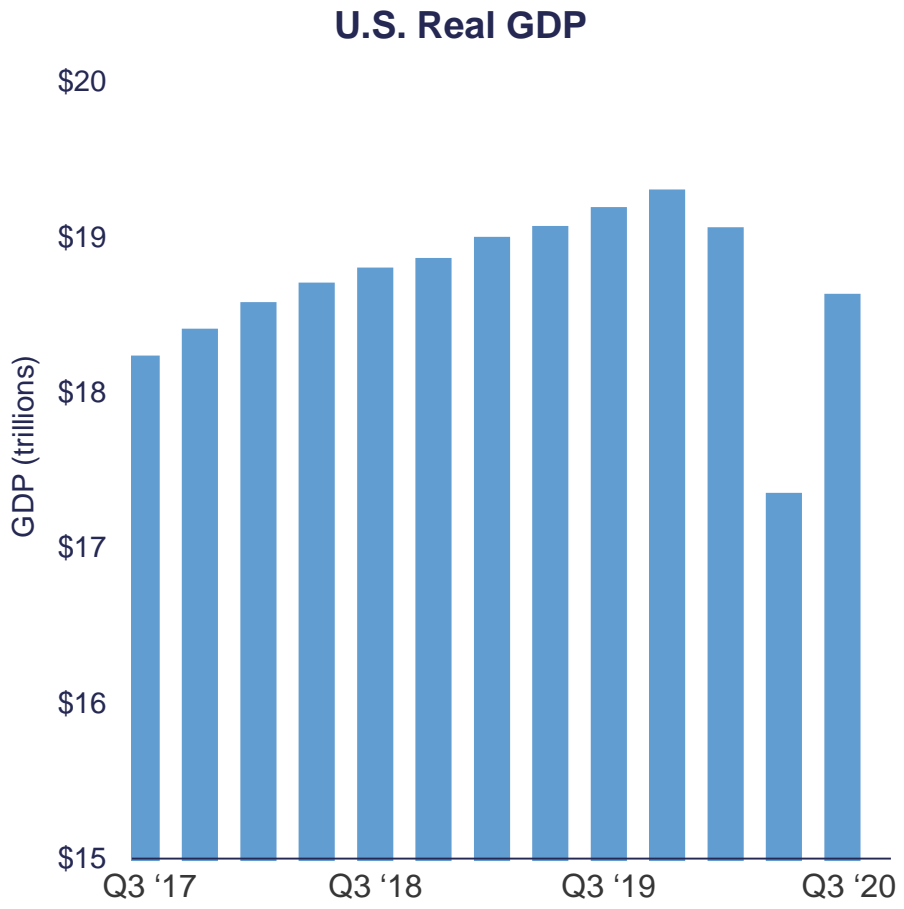
pfm.com

Average U.S. Coronavirus Cases Topped 25 Million



Source: John Hopkins University Coronavirus Resource Center, PFM calculations; as of 1/25/2021.

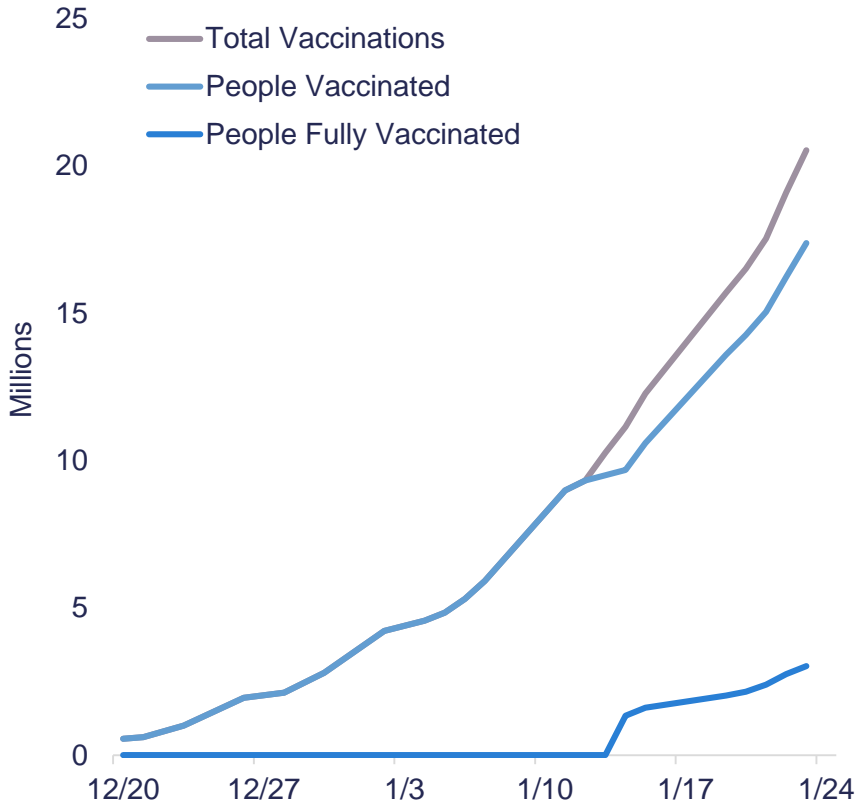
Economy Still Has a Long Road Ahead to Full Recovery



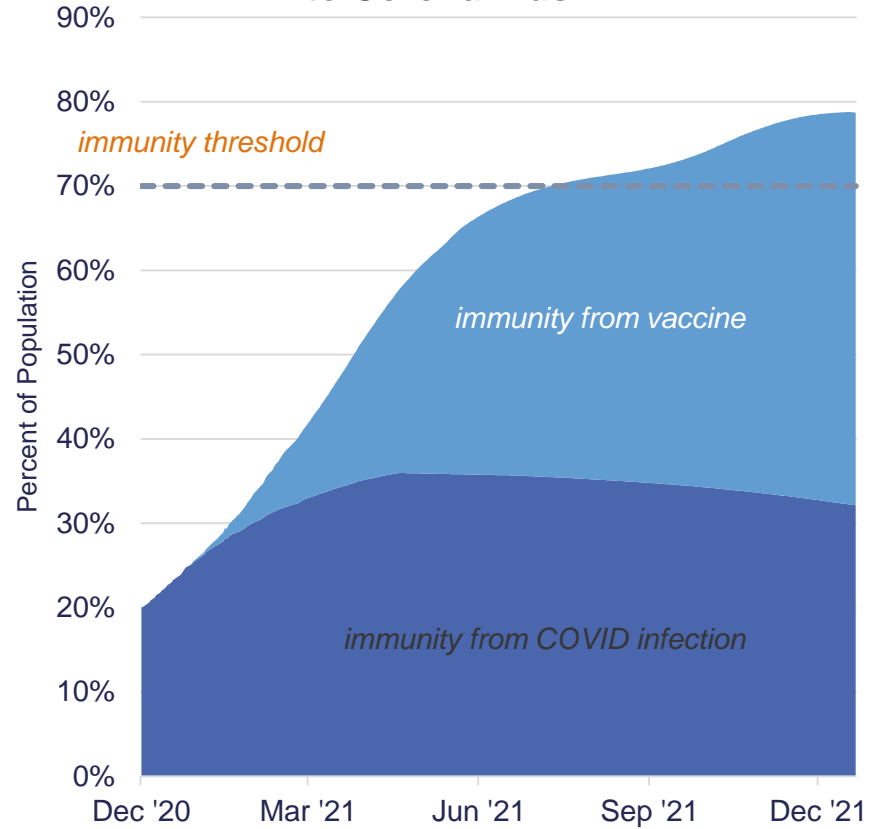
Source: Bloomberg, latest available data as of 12/30/2020. Total U.S. Employment is total non-farm payrolls.

Vaccine Inoculations Expected to Ramp Up Quickly

COVID-19 Vaccine Distribution in U.S.



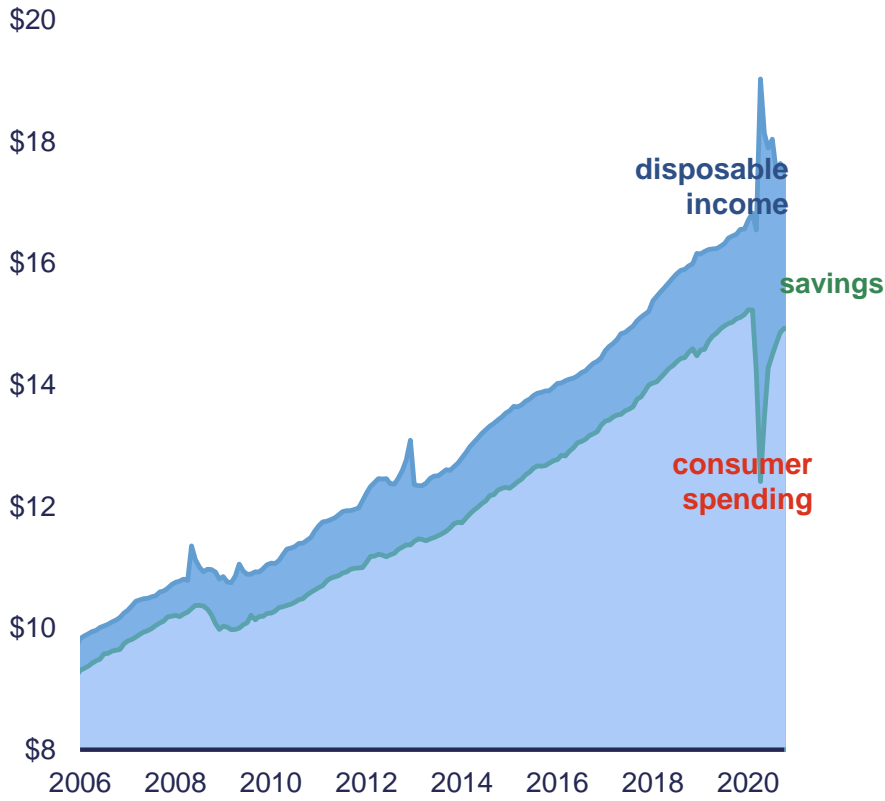
Projection of U.S. Population Immunity to Coronavirus



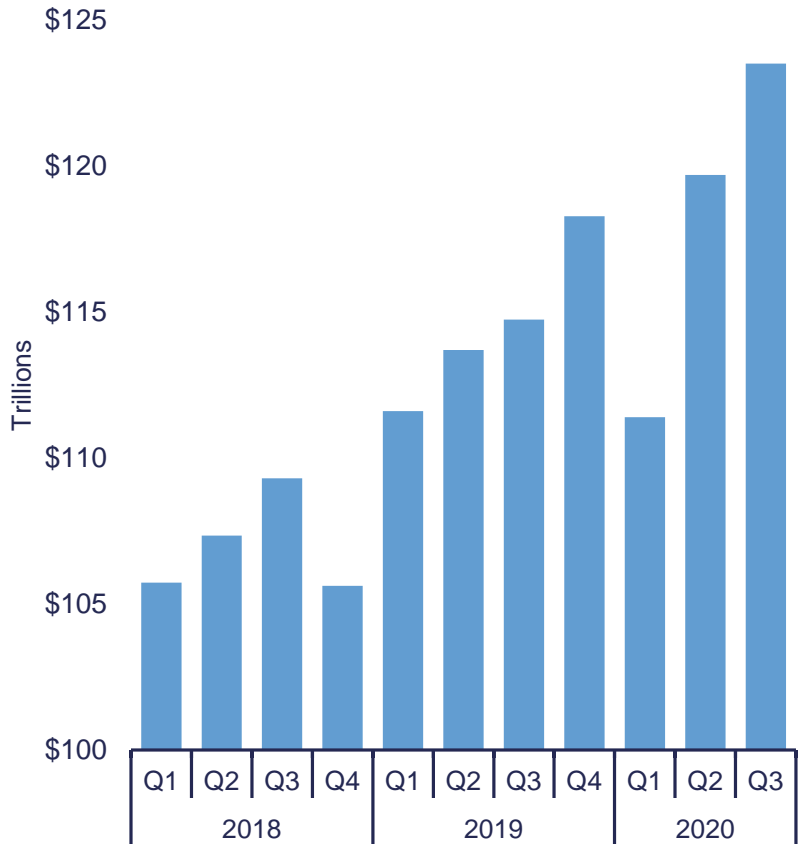
Source (left): Our World in Data, PFM calculations; as of 1/24/2021. Source (right): COVID-19 Vaccine Projections website, CDC, as of 1/22/2021.

Accumulated Savings and Wealth Are Likely to Fuel Consumer Spending

Personal Savings in U.S.
(trillions)

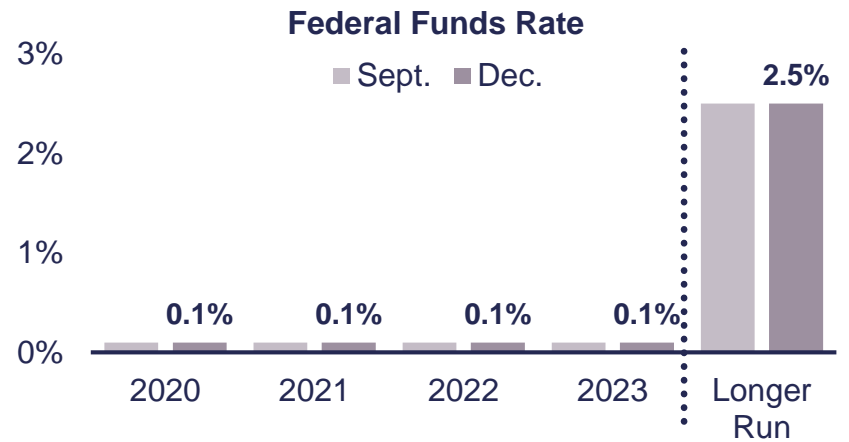
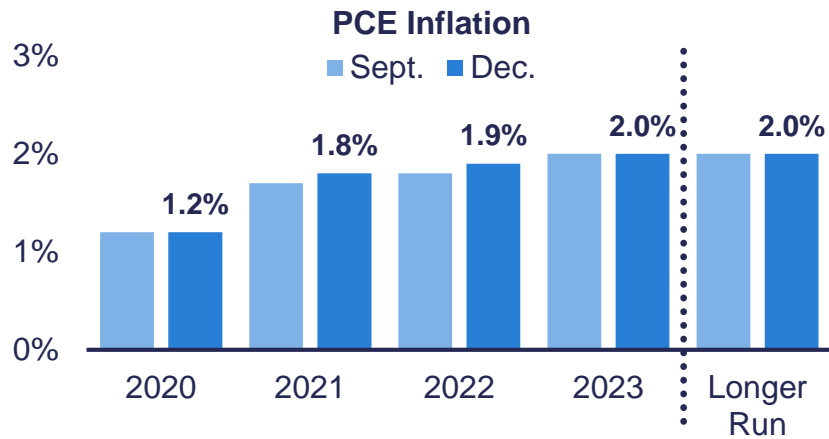
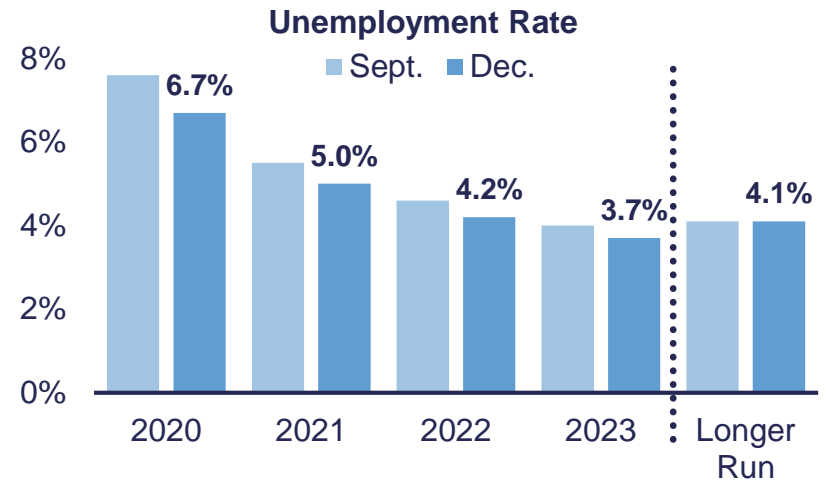
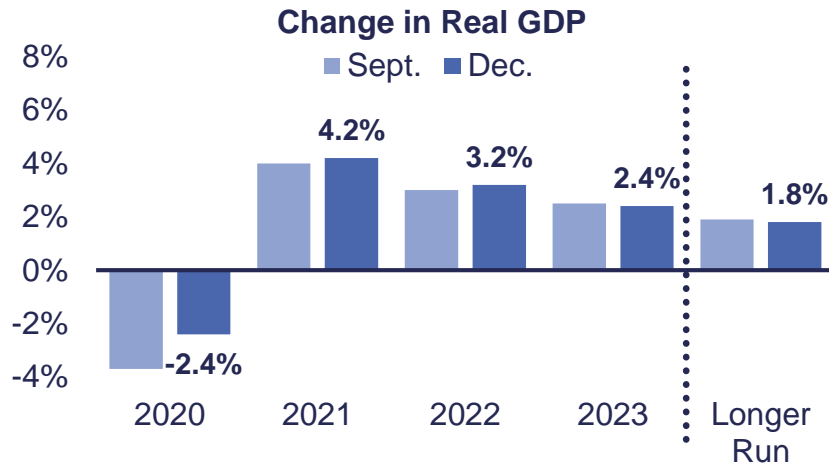


Household Net Worth



Source (left): Federal Reserve, as of December 2020. Sources (right): U.S. Bureau of Economic Analysis and FRED.

Fed's Updated December Projections



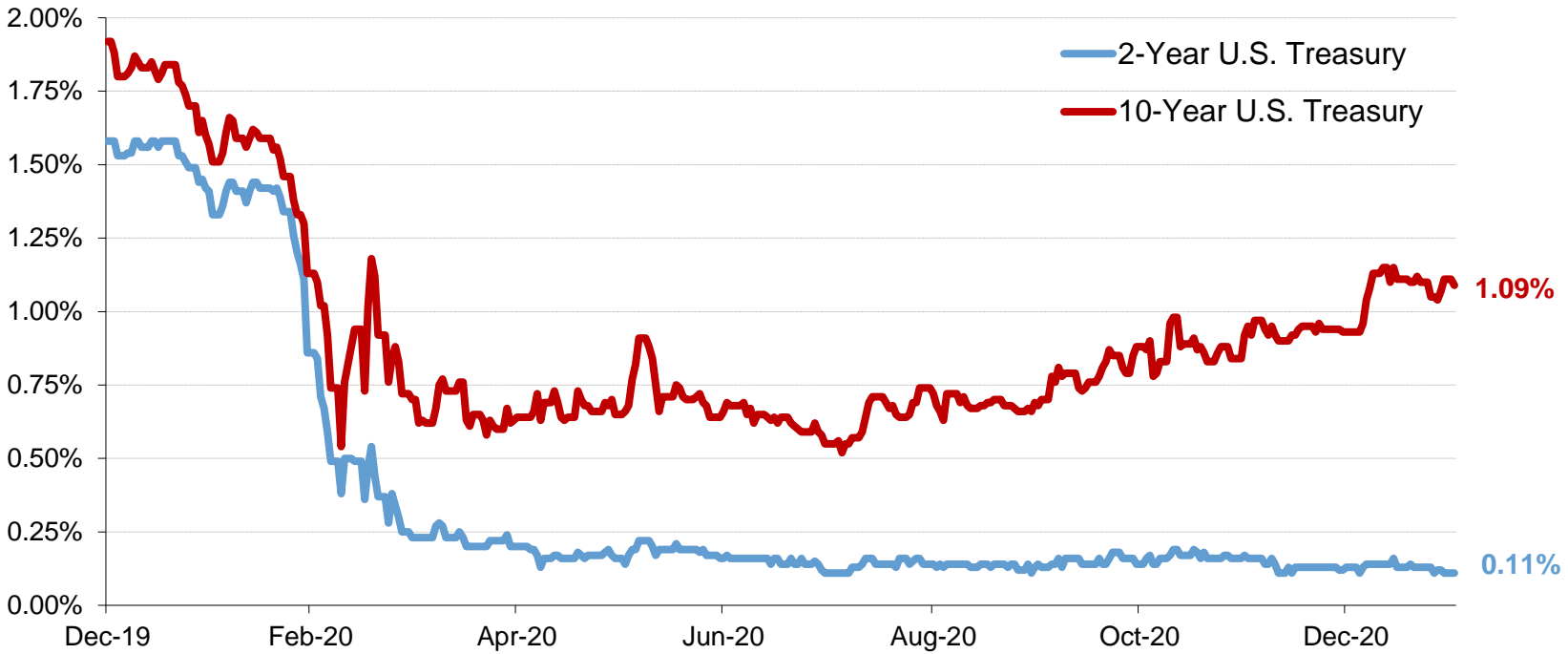
Source: Federal Reserve, economic projections as of December 2020.

U.S. Treasury Yields

Short-term Treasury yields were relatively unchanged while longer-term yields were up modestly.

Treasury Yields

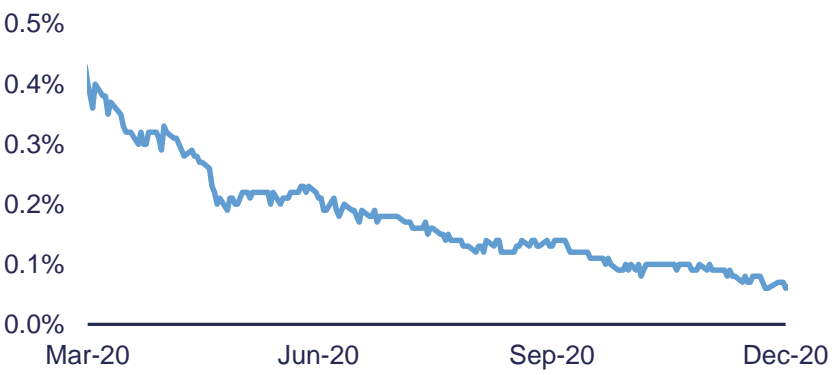
December 31, 2019 – February 1, 2021



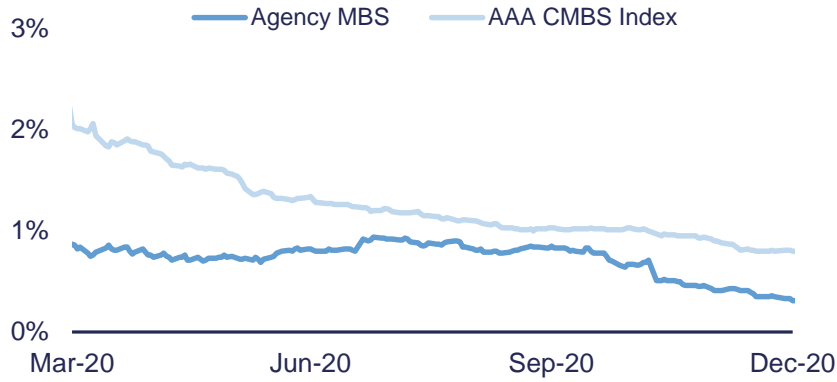
Source: Treasury yields via Bloomberg.

Sector Spreads Tighten Modestly in Fourth Quarter

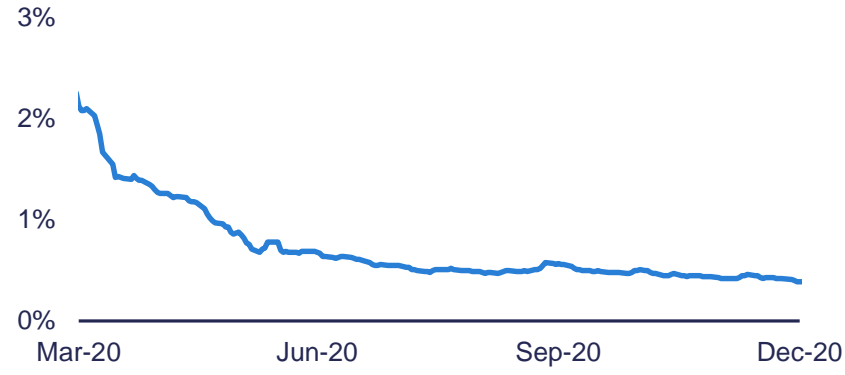
Federal Agency Yield Spreads



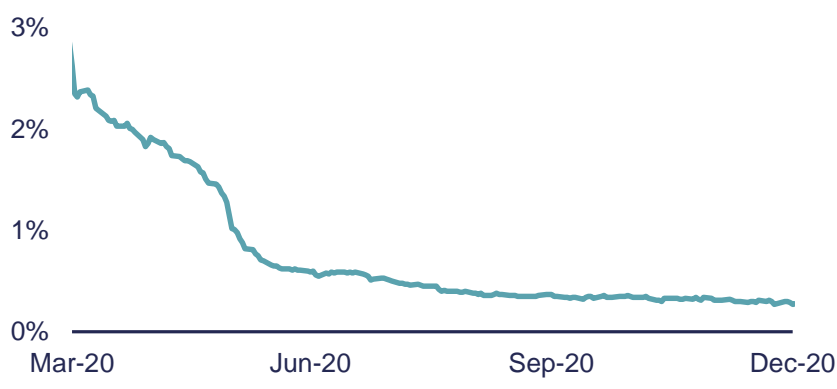
Mortgage-Backed Securities Yield Spreads



Corporate Notes A-AAA Yield Spreads



Asset-Backed Securities Yield Spreads



Source: ICE BofAML 1-5 year Indices via Bloomberg, MarketAxess and PFM as of 12/31/2020. Spreads on ABS and MBS are option-adjusted spreads of 0-5 year indices based on weighted average life; spreads on agencies are relative to comparable-maturity Treasuries. CMBS is Commercial Mortgage-Backed Securities.

Combined Portfolio Composition – By Fund

Fund	September 30, 2020	December 31, 2020
General Fund	\$136,526,976	\$129,703,265
State Water Contract Fund	\$354,292,692	\$352,921,060
Devil Canyon/Castaic Fund	\$4,077,409	\$3,986,166
Total	\$494,897,077	\$486,610,491

Individual securities shown at market value including accrued interest. Numbers may not add to total due to rounding.

Combined Portfolio Composition – By Sector

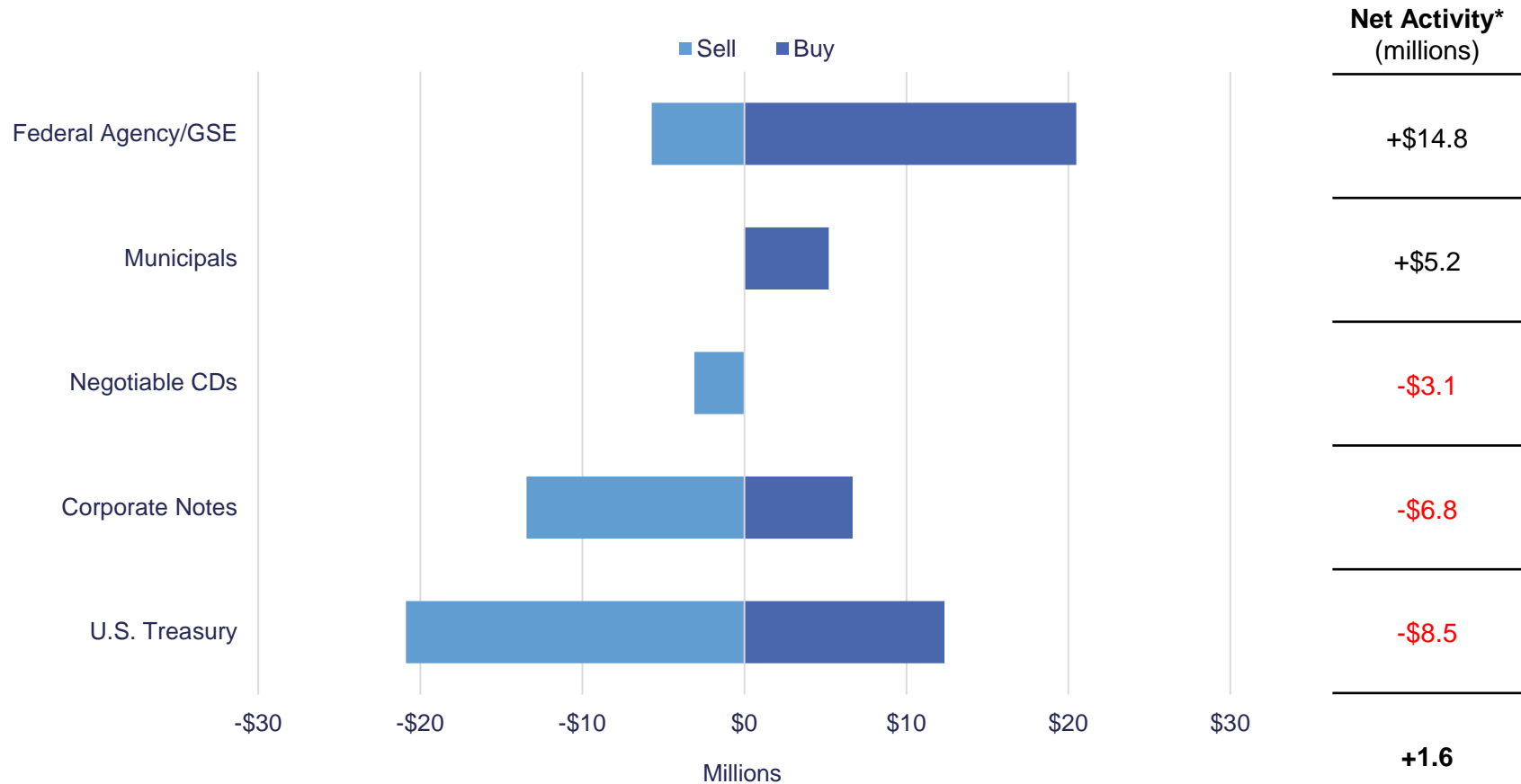
The portfolio is in compliance with the District’s Investment Policy and the California Government Code.

Security Type	Market Value as of September 30, 2020	% of Portfolio	Market Value as of December 31, 2020	% of Portfolios	% Change vs. 9/30/20	Permitted by Policy	In Compliance
U.S. Treasury	\$180,751,741	36.6%	\$171,797,920	35.4%	-1.2%	100%	✓
Federal Agency	\$71,811,594	14.6%	\$86,717,585	17.9%	3.3%	100%	✓
Municipal	\$7,381,507	1.5%	\$12,610,747	2.6%	1.1%	30%	✓
Negotiable CDs	\$30,782,685	6.2%	\$27,717,786	5.7%	-0.5%	30%	✓
Corporate Notes	\$78,879,444	16.0%	\$71,976,313	14.8%	-1.1%	30%	✓
Securities Sub-Total	\$369,606,970	74.9%	\$370,820,351	76.4%			
Accrued Interest	\$1,397,878		\$1,456,415				
Securities Total	\$371,004,849		\$372,276,766				
LAIF	\$69,589,720	14.1%	\$69,737,501	14.4%	0.3%	\$75 Million	✓
Money Market Fund	\$871,308	0.2%	\$146,091	<0.1%	-0.1%	20%	✓
CAMP	\$53,431,200	10.8%	\$44,450,133	9.2%	-1.7%	50%	✓
Total Liquidity	\$123,892,228	25.1%	\$114,333,725	23.6%			
Total Investments	\$494,897,077	100.0%	\$486,610,491	100.0%			

Numbers may not add to total due to rounding. Current investment policy as of August 2020.

Summary of Fourth Quarter Trade Activity

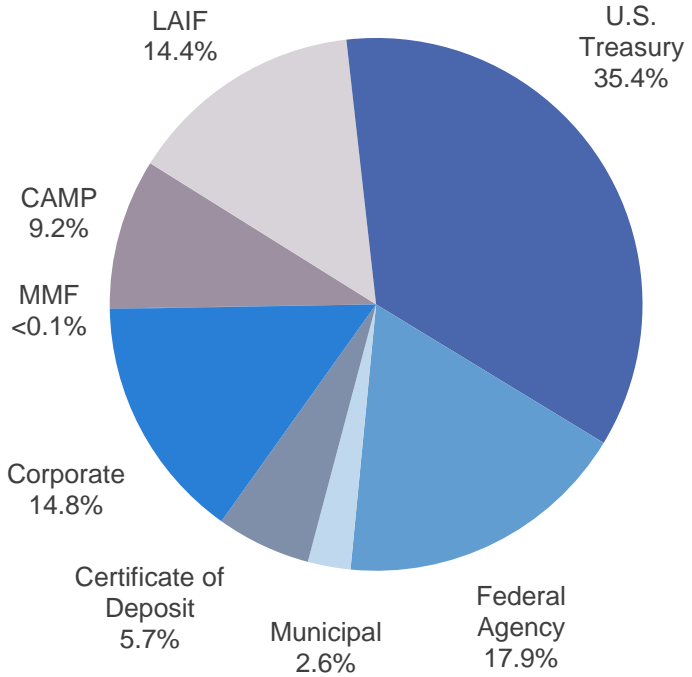
Gross Trading Activity



*Combined trade activity in the General Fund and State Water Contract Fund for the quarter ended 12/31/20. Numbers may not add to total due to rounding.

The District's Portfolios are Well Diversified

Issuer Allocations
December 31, 2020



Corporate Notes	14.8%
American Express	0.9%
Citigroup	0.8%
Apple	0.8%
Toyota Motor Credit	0.7%
Pcarr Financial	0.7%
Caterpillar Financial	0.7%
Honda	0.7%
Bank of America	0.7%
Morgan Stanley	0.5%
Honeywell International	0.5%
Branch Banking & Trust	0.5%
Pfizer	0.5%
JP Morgan	0.5%
John Deere	0.4%
Bank of NY Mellon	0.4%
Wal-Mart	0.4%
National Rural Utilities	0.4%
3M Company	0.4%
Amazon	0.4%
Bristol Myers Squibb	0.4%
Blackrock	0.3%
BNY Mellon	0.3%
Oracle	0.3%
Pepsi	0.3%
Us Bancorp	0.3%
Goldman Sachs	0.3%
Chevron	0.3%
Merck & Co	0.2%
Burlington North Santa Fe	0.2%

Corporate Notes	
Comcast	0.2%
Unilever	0.2%
Visa	0.2%
Adobe	0.2%
Charles Schwab	0.1%
PNC	0.1%
Hershey Co.	0.1%
Home Depot	0.1%

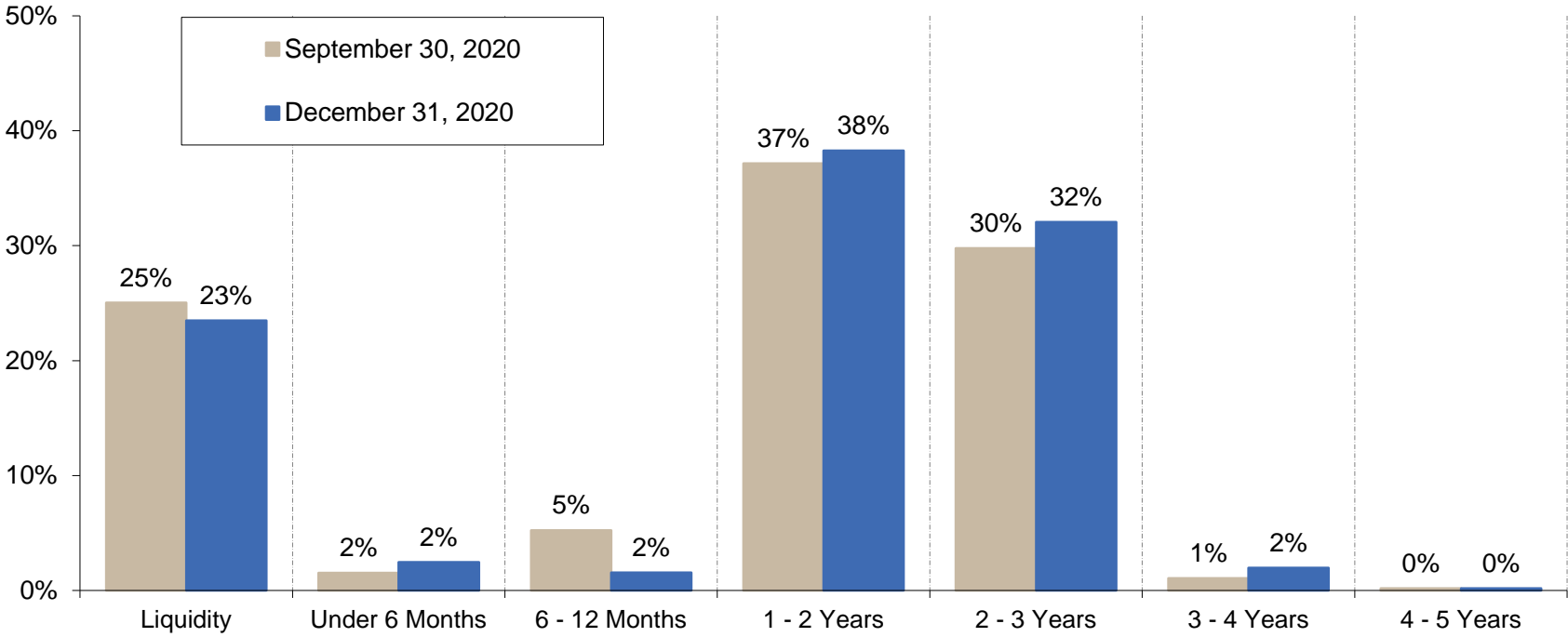
Negotiable CDs	5.7%
Royal Canadian Bank NY	0.8%
Nordea Bank NY	0.8%
DNB Bank	0.8%
Société Générale NY	0.8%
Credit Agricole CIB NY	0.8%
Skandinav Enskilda Bank	0.8%
Sumitomo Mitsui Bank NY	0.6%
Credit Suisse	0.6%
Royal Canadian Bank NY	0.8%

As of December 31, 2020. Numbers may not add to total due to rounding.

Combined Portfolio Maturity Distribution

◆ In an uncertain market environment, we looked to maintain the portfolio's duration in line with the benchmark's duration.

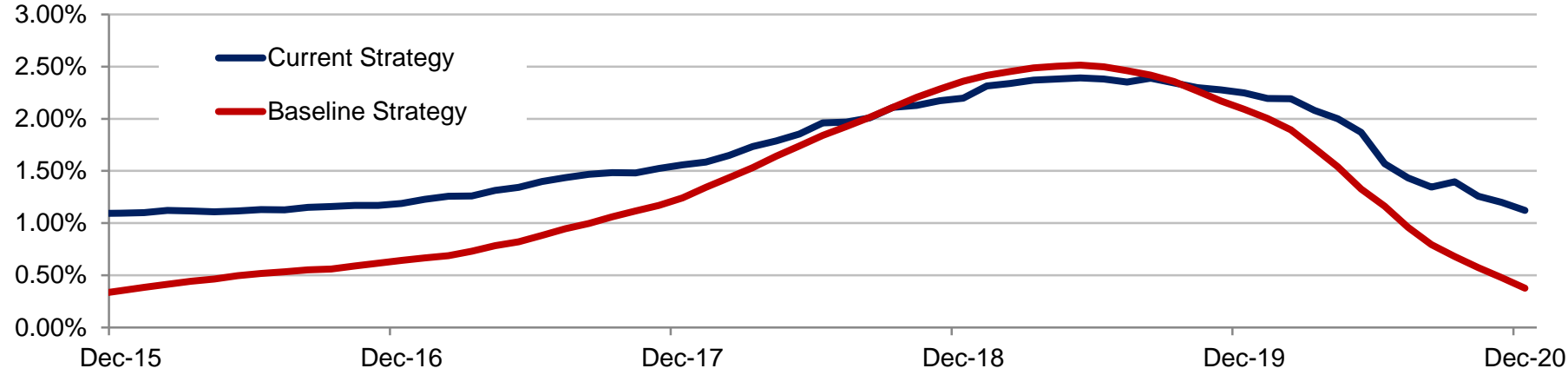
Portfolio Maturity Distribution
September 30, 2020 vs. December 31, 2020



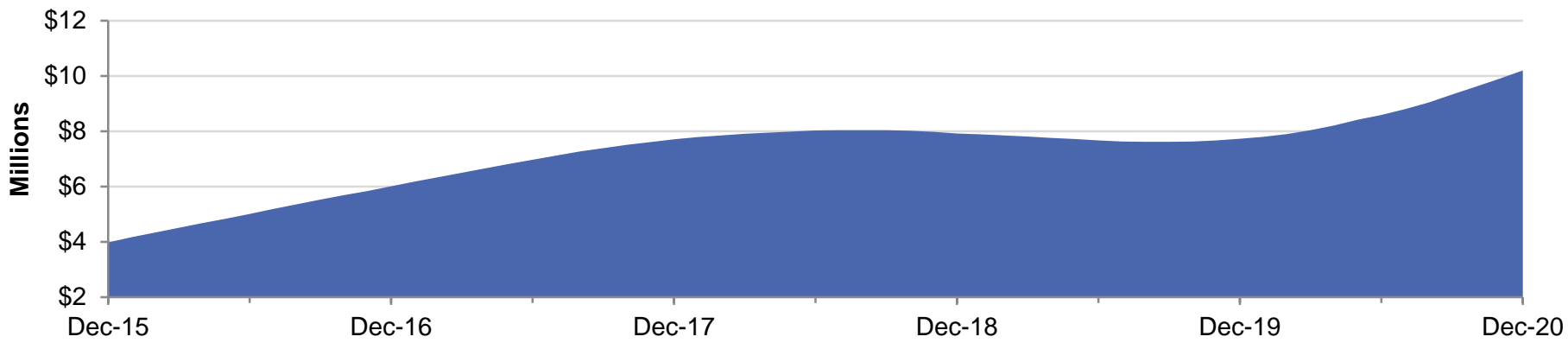
*Numbers may not add to total due to rounding.

Combined Portfolio Yield and Earnings Comparison

Portfolio Month End Yields - Current Strategy vs. Baseline Strategy
December 2015 – December 2020



Estimated Cumulative Incremental Earnings - Current Strategy vs. Baseline Strategy
December 2015 – December 2020



Managed Portfolio Total Return Performance

- Total return expresses annualized rate of return over a specified period and takes into account all changes in the portfolio, including market value changes, reinvestment rates, cash flows, and interest earned plus realized gains/losses.

Periods Ending December 31, 2020					
			Annualized		
BofAML Indices	Duration (years)	Quarter	Past 12 Months	Past 3 Years	Since Inception
State Water Contract Fund	1.86	0.16%	3.34%	3.00%	1.65%
General Fund	1.86	0.16%	3.34%	3.01%	1.67%
ICE BofAML 1 Year UST Index (GC03)	0.99	0.06%	1.82%	2.20%	1.02%
ICE BofAML 1-3 Year UST Index (G1O2)	1.83	0.05%	3.10%	2.74%	1.33%
ICE BofAML 1-5 Year UST Index (GVQ0)	2.66	0.02%	4.25%	3.32%	1.67%

ICE BofAML Indices provided by Bloomberg Financial Markets.

The District's portfolios are not managed on a total return basis, so the indices are shown for information only. Performance on trade-date basis, gross (i.e., before fees), in accordance with the CFA Institute's Global Investment Performance Standards (GIPS).

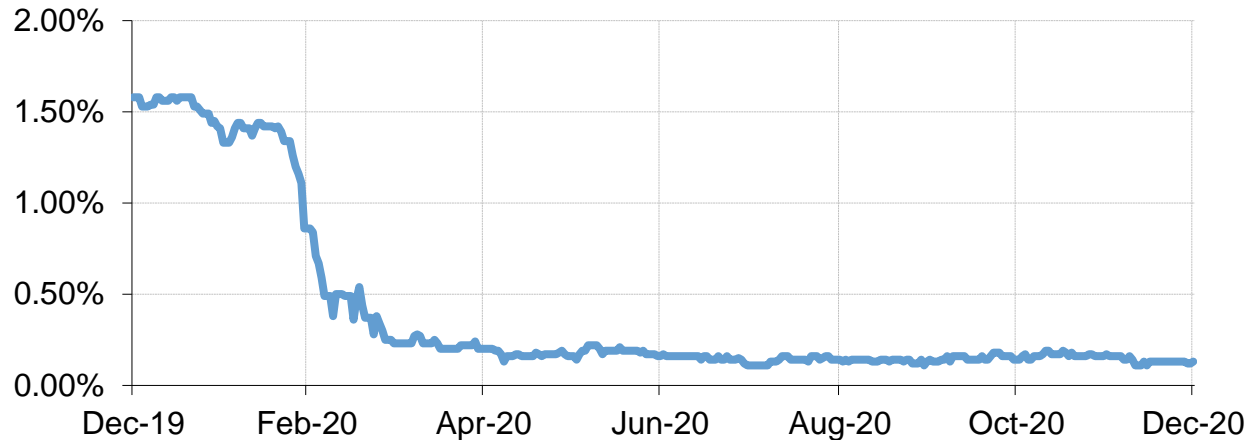
Periods less than one year are on an unannualized basis. Periods greater than one year are on an annualized basis.

Portfolio inception date as of June 30, 2012

Managed Portfolio Earnings

2-Year Treasury Yields

December 31, 2019 – December 31, 2020



Period	Q1 20	Q2 20	Q3 20	Q4 20	12-Mo. Totals
Change in 2-Yr Treasury	-1.32%	-0.10%	-0.02%	-0.02%	-1.49%
Market Value Earnings					
Interest Earned	\$1,964,733	\$1,854,825	\$1,559,911	\$1,343,466	\$6,722,935
Change in Value	\$4,969,835	\$1,748,848	(\$762,844)	(\$735,960)	\$5,219,878
Portfolio Earnings	\$6,934,569	\$3,603,672	\$797,067	\$607,506	\$11,942,813
Accrual Earnings					
Interest Earned	\$1,964,733	\$1,854,825	\$1,559,911	\$1,343,466	\$6,722,935
Change in Value	\$330,777	\$1,224,606	\$755,572	\$792,350	\$3,103,306
Portfolio Earnings	\$2,295,511	\$3,079,431	\$2,315,484	\$2,135,816	\$9,826,241

Note: Earnings are for the PFM managed portion of the District's portfolio only. Accrual earnings calculated on a trade date basis. Change in value calculated as the ending period value (market or amortized cost) less the beginning period value, plus net principal activity. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.

Portfolio Yield and Earnings Notes

• Portfolio Month End Yield

- The “Baseline Strategy” yield is a weighted average calculated by assuming 29% of the portfolio is invested in LAIF (at the average monthly yield) and the remainder of the portfolio invested in 1-year federal agencies (12-month rolling average of the month-end yield). The Baseline Strategy was reflective of the District’s investment strategy at the time PFM assumed management of the portfolio.
- The “Current Strategy” yield is a weighted average of the current yield of all of the investments in the portfolio. In aggregate, the Current Strategy represents a fundamentally different investment than the Baseline Strategy approach with a different risk profile.

• Estimated Cumulative Incremental Earnings

- The earnings are on a yield basis and do not include realized or unrealized market value gains or losses.
- The chart shows an estimate of the cumulative additional earnings being generated by the Current Strategy versus what the Baseline Strategy would have earned over the same period.
- The estimated monthly earnings for each of the strategies is calculated by multiplying the monthly yield of the strategy by the current balance of the overall portfolio.
- The incremental earnings is simply the difference between the Current Strategy estimated monthly earnings and the Baseline Strategy estimated monthly earnings on a cumulative basis over the period shown.
- The estimates are approximations to illustrate differences in investment approaches. The District’s actual earnings will vary.

Disclosures

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The views expressed within this material constitute the perspective and judgment of PFM Asset Management LLC at the time of distribution and are subject to change. Any forecast, projection, or prediction of the market, the economy, economic trends, and equity or fixed-income markets are based upon current opinion as of the date of issue, and are also subject to change. Opinions and data presented are not necessarily indicative of future events or expected performance. Information contained herein is based on data obtained from recognized statistical services, issuer reports or communications, or other sources believed to be reliable. No representation is made as to its accuracy or completeness. This material is intended for informational purposes only and should not be relied upon to make an investment decision, as it was prepared without regard to any specific objectives or financial circumstances. It should not be construed as an offer to purchase/sell any investment. References to particular issuers are for illustrative purposes only, and are not intended to be recommendations or advice regarding such issuers.

It is not possible to invest directly in an index. The index returns shown throughout this material do not represent the results of actual trading of investor assets. Third-party providers maintain the indices shown and calculate the index levels and performance shown or discussed. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause investment performance to be lower than the performance shown.

PFM Asset Management LLC has exercised reasonable professional care in the preparation of this performance report. However, information in this report on market indices and security characteristics, as well as information incorporated in the Market Commentary section, is received from sources external to PFM Asset Management LLC.

PFM Asset Management LLC relies on the client's custodian for security holdings and market values. Transaction dates reported by the custodian may differ from money manager statements. While efforts are made to ensure the data contained herein is accurate and complete, we disclaim all responsibility for any errors that may occur.

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Director Comments and Discussion



**Paul
Kielhold**
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



**Gil J.
Botello**
Director



**Susan
Longville**
Director

Staff Recommendation
Receive and file.

Discussion Item 5.2 (Pg. 54)

Chris Jones, MESM– Project Manager II/ Biological Resources

Consider Consulting Agreement for Monitoring Riparian Bird Species Covered by the Upper Santa Ana River HCP

Staff Recommendation

Place an amendment to the existing SAWA agreement on a future Board of Directors meeting for consideration.

Background

Purpose and Need: Establish baseline data to look at location and number of territories of riparian bird species covered by the Upper SAR HCP within the HCP Area

- Enable future comparisons of project impacts and benefits:

March 2019: Awarded 2-Year Contract to SAWA

- Scope of Work
 - Surveys and reporting to document presence and location of riparian bird species covered by the HCP
 - Least Bell's vireo (*Vireo bellii pusillus*)
 - Southwestern willow flycatcher (*Empidonax traillii extimus*)
 - Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
 - Yellow-breasted chat (*Icteria virens*)



Least Bell's Vireo



Southwestern Willow Flycatcher



Yellow-Breasted Chat



Western Yellow-Billed Cuckoo

*All photos are courtesy of SAWA 2019, with the exception of the yellow-breasted chat photo (2014 Christopher L. Christie)

Project Area: HCP Effects Area



Project Area: Tributary Restoration Projects



Selection Process

January 2019: RFP and Competitive Bid Process

- 7 Firms Proposed
- 3 Firms Interviewed

SAWA Selected

- Over 20 years of experience in the watershed with the species of interest
- Continuity of trusted data
 - Valley District interests
 - Regional integration
- Realistic, efficient price

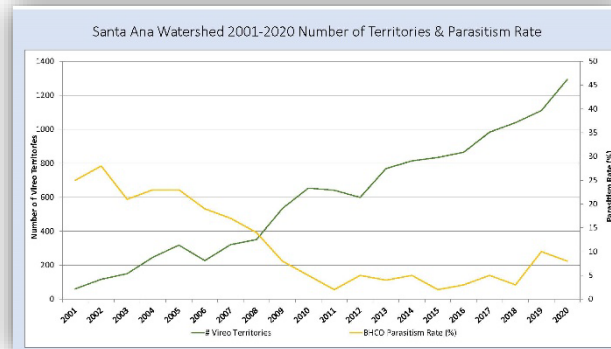
Consulting Firm	Phase 1 and 2 Site Evaluations and TM
Santa Ana Watershed Association	\$ 296,565.89
Firm A	\$ 282,335.24
Firm B	\$ 288,649.00
Firm C (not interviewed)	\$ 341,960.00
Firm D (not interviewed)	\$ 396,739.12
Firm E (not interviewed)	\$ 491,614.00 to \$652,339.00
Firm F (not interviewed)	\$ 829,850.00

2021 Amendment

Purpose and Need: Continue to update baseline population information for covered riparian bird species and manage identified threats

2021 Scope of Work

- Census data and reporting
 - Number of territories in the upper watershed
- Vireo nest siting and productivity study
 - Details on habitat components and structure that vireos select for when placing a nest
 - Nest productivity in tributary restoration sites before and after restoration
- Cowbird trapping
 - Operation and management of up to 10 traps

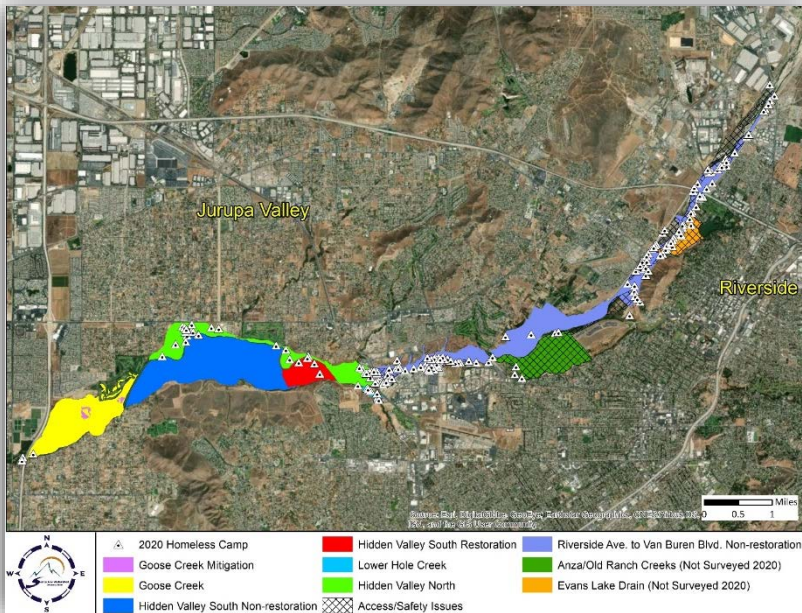


Fiscal Impact

2021 SOW Budget Estimate: \$210,175.46

HCP Cost Share:

- HCP Partner Share (60%): \$126,105.28
- Valley District Share (40%): \$84,070.18



Director Comments and Discussion



**Paul
Kielhold**
President



June Hayes
Vice President



**T. Milford
Harrison**
Treasurer



**Gil J.
Botello**
Director



**Susan
Longville**
Director

Staff Recommendation

Place an amendment to the existing SAWA agreement on a future Board of Directors meeting for consideration.



Future Business



Adjournment
