



January 10, 2026

# Memorandum

**To:** SANDAG Board of Directors  
**From:** PFM Financial Advisors LLC  
**RE:** 2026 Refunding Opportunity

## INTRODUCTION

PFM Financial Advisors LLC (“PFM”), as the financial advisor to SANDAG, works with SANDAG staff to monitor the debt portfolio and track the financial markets to identify refunding opportunities. SANDAG’s Series 2016A bonds are callable on April 1, 2026, at par and present a “current refunding” opportunity (refunding up to 90 days before the call date) for debt service savings. SANDAG has other bonds outstanding with call dates in the future that may be “advance refunded” (refunding more than 90 days in advance of the call date) to capture incremental savings. Specifically, we reviewed SANDAG’s two taxable bonds Series 2019A and Series 2021A. These bonds have a 10-year call date and may be refunded prior to their final maturity for additional potential debt service savings.

As of November 2025, the current refunding of Series 2016A is estimated to produce nearly \$40 million in present value (PV) savings. Advance refunding of select maturities for Series 2019A and Series 2021A can generate another estimated \$3.4 million in PV savings. Based on the market conditions over the summer, Series 2016A refunding savings ranged from \$22 million to \$40 million on account of rate volatility. The advance refunding savings have ranged from \$2.0 million to \$3.4 million.

This memorandum discusses current bond market conditions, SANDAG’s existing debt portfolio, the refunding analysis and recommendation and outlines the next steps for successful execution.

## SANDAG’S OUTSTANDING DEBT OVERVIEW

SANDAG, serving as the San Diego County Regional Transportation Commission, has \$2.2 billion of outstanding long-term debt. It is comprised solely of fixed-rate bonds. A summary of the outstanding bonds is tabulated below.

Series	Lien	Tax Status	Coupon	Purpose	Original Par	Final Maturity	Outstanding Par	Call Date	Callable Par
2010A	Senior	Taxable	Fixed Rate	New Money	338,960,000	4/1/2048	338,960,000	Make-Whole	-
2016A	Senior	Tax-Exempt	Fixed Rate	New Money	325,000,000	4/1/2048	278,750,000	4/1/2026	272,020,000
2019A	Senior	Taxable	Fixed Rate	Refunding	442,620,000	4/1/2048	314,062,000	4/1/2030	314,062,000
2020A	Senior	Tax-Exempt	Fixed Rate	Multi-Purpose	74,820,000	4/1/2048	66,290,000	4/1/2030	55,495,000
2021A	Senior	Taxable	Fixed Rate	Refunding	149,840,000	4/1/2048	140,180,000	4/1/2031	84,800,000
2023A	Senior	Tax-Exempt	Fixed Rate	Refunding	433,355,000	4/1/2042	395,715,000	4/1/2033	178,840,000
2021B	Sub.	Tax-Exempt	Fixed Rate	Refunding	116,150,000	4/1/2039	116,150,000	4/1/2031	94,125,000
TIFIA*	Jr. Sub.	Taxable	Fixed Rate	New Money	537,484,439	10/1/2045	561,831,833	Anytime	561,831,833
<b>Total</b>							<b>2,211,938,833</b>		<b>1,561,173,833</b>

\*Accrued as of 10/1/2025

**Three Lien Structure.** SANDAG has debt obligations on three separate lien levels, providing different priority of sales tax payment to investors based on their respective lien level. Senior lien obligations are



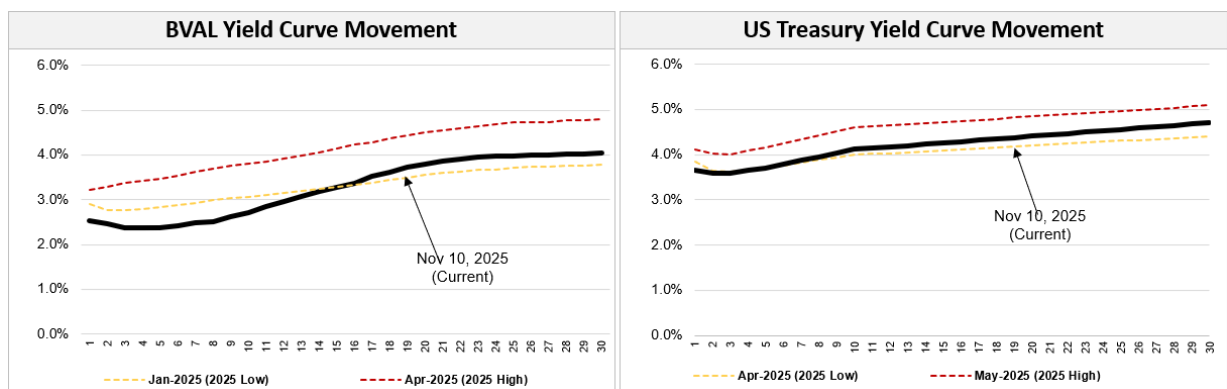
paid first, followed by subordinate lien obligations and then junior subordinate lien obligations (i.e., TIFIA loan). The TIFIA loan is repayable from a third lien that is subordinate to the senior lien bonds, the 2021B Bonds, and the commercial paper notes. This three-tiered lien structure has been developed by SANDAG to maximize program capacity, keep senior lien ratings as high as possible, and minimize borrowing costs.

**Annual Debt Service.** Excluding the TIFIA loan, SANDAG has a level debt service profile with senior lien annual debt service ranging from \$102.9 million to \$106.6 million per year through FY2048. The aggregate senior and subordinate lien debt service ranges from \$110.3 million to \$114.0 million. With the TIFIA loan, SANDAG’s aggregate debt service is ascending, with peak debt service of \$161.3 million in FY2045.

**Debt Service Coverage.** Senior lien debt service coverage, based on sales tax receipts of \$431.4 million for the 12 months ending September 30, 2025, is 4.05 times. Meaning, for every \$1 of senior lien debt service, SANDAG received \$4.05 of sales tax revenue providing ample coverage, supporting SANDAG senior lien triple-A ratings. Total coverage, when comparing the annual revenues for the 12 months ending September 30, 2025, to peak debt service in FY2045, is 2.56 times.

## MARKET UPDATE

The Bloomberg Valuation Service's AAA yield curve (or the “BVAL AAA” yield curve is a widely accepted benchmark for tax-exempt municipal bond rates) has been very volatile over the course of 2025 but is experiencing a period of stability since September. The two charts below show the current AAA BVAL yield curve and the current US Treasury yield curve (benchmark of taxable municipal bond rates) in comparison to the lowest and highest rates this year. As seen in the chart, the BVAL AAA curve has seen reductions along the curve and is currently at year-to-date lows on the short end as the result of recent Fed cuts and the additional expected cuts. The long end of the BVAL AAA yield curve has also seen reductions, impacted by various headline news, most pertinently the softening labor market and until recently the government shutdown. While Treasury rates have also backed off from the 2025 peak, they have stayed in a narrow band throughout 2025. On the short end, both yield curves maintain slight inversion in reaction to a variety of market uncertainties reigniting fears of a recession. In general, market volatility has eased since September, largely due to the emergence of a firm consensus around the Fed’s future rate path and a pause in new economic data releases following the government shutdown. Overall rates remain attractive: the current 30-year BVAL AAA bond yield is 4.05%, which is 9 bps lower than its long-term average of 4.14%. Despite a record municipal issuance year, there has been sufficient demand to absorb the supply.





## REFUNDING OPPORTUNITY

SANDAG has the opportunity to pursue two refundings that are described in greater detail below:

1. Tax-exempt *current* refunding of all of the tax-exempt Series 2016A
2. Tax-exempt *advance* refunding of a portion of the taxable Series 2019A and Series 2021A

**Current Refunding of Series 2016A:** SANDAG has about \$272 million of Series 2016A tax-exempt debt outstanding with a call date of April 1, 2026. That means, at the call date, SANDAG can “call” and refund the Series 2016A bonds *at par*, with proceeds from a new series of tax-exempt refunding bonds for debt service savings. Under the current tax law, so long as SANDAG issues the debt no more than 90 days ahead of the call date, it constitutes a “current refunding”, and the refunding bonds may be issued on a tax-exempt basis.

The bond proceeds of the refunding issue can be set-aside in an escrow and invested during the 90-day current refunding window. For a current refunding there are no yield restrictions on escrow earnings and SANDAG may retain any “positive arbitrage”, that is, earnings in excess of the arbitrage yield (or the borrowing rate) for the refunding bonds. Short-term investment rates are fairly high and provide SANDAG the opportunity to earn positive arbitrage in the current rate environment, enhancing the refunding savings.

Based on current market rates, through this refunding, SANDAG can achieve approximately \$55 million in debt service savings through 2048. In present value (PV) terms the savings amount to **\$39.7 million** or about **14.6%** when PV savings is divided by the \$272 million of bonds to be refunded. This includes over \$300,000 of positive arbitrage earner over a 50-day escrow period. On aggregate for Series 2016A, the total PV savings far exceed the minimum 3% target established in the Regional Transportation Commission’s debt policy, Board Policy No. 036<sup>1</sup>. All but one maturity produces 3% PV savings on a standalone basis. The 2027 maturity for Series 2016A has less than 3% PV savings. Short

Summary of the Series 2016A Refunding			
<b>Sources and Uses</b>		<b>Savings</b>	
Par	238,065,000	<b>FY</b>	<b>Prior Refunding Annual</b>
Premium	34,421,119		<b>Debt Service Debt Service Savings</b>
Prior Funds	5,667,083	2026	1,133,417 - 1,133,417
<b>Total Sources</b>	<b>278,153,203</b>	2027	20,666,000 18,209,544 2,456,456
Refunding Deposit	277,301,042	2028	20,667,750 18,212,250 2,455,500
Cost of Issuance	852,160	2029	20,666,750 18,210,250 2,456,500
<b>Total Uses</b>	<b>278,153,203</b>	2030	20,667,250 18,207,000 2,460,250
		2031	20,663,250 18,206,750 2,456,500
		2032	20,664,000 18,203,500 2,460,500
		2033	20,663,250 18,206,500 2,456,750
		2034	20,665,000 18,209,500 2,455,500
		2035	20,668,000 18,211,500 2,456,500
		2036	20,666,000 18,206,500 2,459,500
		2037	20,668,000 18,208,750 2,459,250
		2038	20,667,500 18,211,750 2,455,750
		2039	20,663,250 18,204,250 2,459,000
		2040	20,664,000 18,205,500 2,458,500
		2041	20,668,000 18,208,750 2,459,250
		2042	20,663,500 18,207,500 2,456,000
		2043	20,664,250 18,205,500 2,458,750
		2044	20,663,250 18,206,250 2,457,000
		2045	20,663,750 18,208,000 2,455,750
		2046	20,663,750 18,204,000 2,459,750
		2047	20,666,250 18,207,750 2,458,500
		2048	20,664,000 18,207,000 2,457,000
		<b>Total</b>	<b>455,770,167 400,568,294 55,201,873</b>
<b>Bond Statistics</b>			
<u>Refunded Bonds</u>			
Par	272,020,000		
Coupon	5.00%		
<u>Refunding Bonds</u>			
Par	238,065,000		
Coupon	5.00%		
All-in TIC	3.63%		
<u>Savings Statistics</u>			
<b>Cash Flow Savings</b>	<b>55,201,873</b>		
<b>Avg. Annual Savings</b>	<b>2,457,657</b>		
<b>NPV Savings (\$)</b>	<b>39,726,052</b>		
<b>NPV Savings (%)</b>	<b>14.60%</b>		
<u>Escrow Statistics</u>			
Arb. Yield	3.10%		
Escrow Yield	3.89%		
Positive Arb.	306,592		
Escrow Length	50		

<sup>1</sup> SANDAG Board Policy No. 36 provides with regards to refunding bonds: "As a general guideline, SANDAG will target a minimum debt service savings threshold goal of 3.0 percent of the refunded bond principal amount, on a maturity-by-maturity basis, unless there are other compelling reasons for defeasance." Here we state the compelling reasons for why that guideline should not apply in this scenario.



maturities like the 2027 maturity, typically do not generate significant dollar savings because the remaining term is brief, and the interest rate benefit is realized over a very limited period. Additionally, so long as even a single maturity is outstanding, SANDAG's obligation for continuing disclosure for the series remains. The staff time and effort required to prepare continuing disclosure would outweigh the benefit. For those reasons, SANDAG may consider refunding the only remaining 2027 maturity despite its modest savings. The estimated all-in true interest cost (TIC) on the fixed rate refunding bonds is 3.63%. Final TIC and savings are dependent on prevailing interest rates at the time of pricing. A summary of the bond sources and uses and the potential savings is detailed in the table.

### **Tax-exempt Advance Refunding of Series 2019A and Series 2021A:**

The IRS allows a tax-exempt current refunding of taxable bonds once the original escrow purchased with taxable proceeds has been fully retired (as one tax-exempt issuance can be outstanding at a time associated with the original tax-exempt asset). The taxable Series 2019A bonds refunded the tax-exempt Series 2012A bonds, callable April 1, 2022, and portion of the tax-exempt Series 2014A bonds, callable April 1, 2024. The taxable Series 2021A bonds advance refunded the remaining Series 2014A bonds. Since we are past the 2022 and 2024 call dates, SANDAG can advance refund the taxable Series 2019As and Series 2021As with tax-exempt debt.

The refunding escrow for such an advance refunding is typically invested to offset its carrying cost during the escrow period, but unlike a current refunding, the IRS limits the escrow yield at the borrowing rate, or more technically the arbitrage yield for the refunding bonds. But if the arbitrage yield of the transaction can be *raised*, the escrow can be invested up to that higher rate. The refunding of the Series 2016A bonds has a higher arbitrage yield. This provides an opportunity to combine the advance refunding of Series 2019A and Series 2021A bonds with the 2016A current refunding under a "common plan of finance" and *blend-up* the yield on the advance refunding piece.

Unlike a traditional refunding where savings are derived by replacing higher coupon debt with lower cost debt, savings here are generated through "positive carry" of the blended escrow investment rate over the standalone borrowing rate. Additionally, the prevailing interest rate environment supports this strategy as elevated short-term interest rates make it possible to achieve the high escrow yields essential to this strategy.

There is about \$314.1 million outstanding on the Series 2019A bonds and all of it is callable debt. There is about \$140.2 million outstanding on the Series 2021A bonds of which \$84.8 million is callable and the remaining \$55.4 million non-callable debt. A maturity-by-maturity analysis is performed to inform what portion of these bonds can be refunded. SANDAG should look at each individual maturity across both series of bonds and select those individual maturities that provide the most attractive candidates for savings in today's market. For non-callable debt, any maturities with positive savings, however modest, should be refunded. For any callable maturities, SANDAG has the option to wait till the call date in 2030 and 2031 to execute a current refunding for a possibility of higher savings. However, the two series being considered, carry relatively low coupon rates that have limited potential for refunding savings and are generally less attractive candidates. For that reason, any callable bonds that presently produce savings higher than a hypothetical future current refunding assuming rates remain unchanged, should be considered for an advance refunding.

Two maturities for Series 2019A bonds and 10 maturities for the Series 2021A bonds totaling about \$115 million produce positive savings that provide an additional PV savings of \$3.4 million or 3.1% of refunded par. SANDAG staff will continue to monitor the refunding candidates for savings and make the final decision closer to pricing in February.



## RECOMMENDATION

**Series 2016A Current Refunding Recommendation:** Our recommendation is to refund all of the Series 2016A bonds at their call date to capture the strong estimated PV savings of nearly \$40 million. There is potential to capture some positive arbitrage (estimated \$300,000 based on current rates and schedules) by executing the refunding a little in advance of the call date. Refunding *all* of the maturities, including the 2027 maturity with low savings, will conclude SANDAG's disclosure requirement for the Series 2016A upon execution. Short maturities, like the 2027 maturity, are unlikely to meet the 3% savings threshold due to their short term and we recommend taking the modest savings available presently.

**Advance Refunding Criteria:** A partial refunding of the Series 2019A bonds and Series 2021A bonds can provide some additional debt service savings. We recommend establishing clear and strategic refunding criteria in advance. Commission's debt policy has guidelines to target maturities with a minimum 3% PV savings. In addition, we think, the criteria ought to be different for non-callable and callable maturities.

- For non-callable maturities the minimum criteria should be anything more than 0% PV savings. Non-callable maturities are typically never refunded and the blending of the yields as previously described is the only reason these maturities are producing a positive savings. These maturities should be refunded if there are any positive savings to be had.
- For callable maturities, SANDAG should target the policy based 3% PV savings, but also factor in a future current refunding and breakeven rates in order to select refunding candidates. The final decision on refunding candidates can be made at the time of pricing based on the criteria. Specifically on the callable maturities for Series 2019A and 2021A, since these are low coupon bonds there is limited *option value* in waiting for the future call date. Waiting could result in improved savings if rates are lower in the future but that is offset by the risk of higher rates and lower savings. There is no way to predict future interest rates and no guarantee they will be lower than current rates. If SANDAG can achieve PV savings with an advance refunding that are in excess of a future current refunding, assuming current rates, we recommend locking in the savings today instead of waiting.

**Series 2019A Advance Refunding:** Based on the criteria discussed here, we recommend refunding two maturities for Series 2019A (2035-2036) that each produce PV savings of over 3%, demonstrate higher savings today relative to a future current refunding.

**Series 2021A Advance Refunding:** For the Series 2021A, 10 maturities produce positive savings. Five of these are non-callable and we recommend refunding all of them even though three have less than 3% PV savings on an individual basis. For non-callable maturities, any positive savings, however low, would not be available to SANDAG otherwise. Of the other five callable maturities, four have high breakeven rates, meaning interest rates would have to drop by more than 0.75% to 1.0%, between now and 2030, in order for SANDAG to realize higher PV savings on those maturities compared to the current market. We recommend refunding all four maturities even though two have less than 3% PV savings, on account of the high breakeven rates. Lastly the 2036 *callable* maturity has less than 3% PV savings and a moderately high breakeven rate. While it is included in the analysis in this memo in case the refunding economics improves, it could be excluded from the final refunding.



**Aggregate Advance Refunding Recommendation:** In summation, we recommend refunding the 12 maturities between Series 2019A and Series 2021A totaling \$115 million (which may change depending on marketing conditions at the time of pricing) for a PV savings of \$3.4 million. This still leaves \$330 million outstanding between the two series which may be refunded in the future. PFM believes this targeted approach both optimizes savings within the current rate environment while retaining future optionality on a large portion of the bonds.

The rate environment and the coupling with the 2016A refunding provide this unique opportunity for tax-exempt advance refunding to realize debt service savings on Series 2019A and Series 2021A. Although savings may be modest, this strategy would allow SANDAG to pick up incremental savings that might not otherwise have ever been available.

## NEXT STEPS FOR TRANSACTION EXECUTION

**Team Selection:** SANDAG has selected their underwriting team as well as their bond counsel and disclosure team through a competitive RFP process. SANDAG has also engaged a financial advisor to round out the team. All team members are engaged and working on the potential transaction.

**Size and Structure:** The proposed refunding will be executed to reduce debt service costs on existing bonds. The basic structure of the refunding bonds will be “matched” to the refunded bonds and result in uniformly lower annual debt service costs. The final maturity of the bonds will not be extended. The bonds will be issued as senior lien securities with a 10-year par call feature and will not be required to fund a debt service reserve fund. The financing team will continue to work with SANDAG as we approach pricing to evaluate any structural adjustments that would benefit SANDAG.

**Rating Agency Strategy:** SANDAG currently maintains senior lien long-term ratings of “AAA” from S&P and Fitch, and a rating of “Aa2” from Moody’s. SANDAG staff and the financing team met with S&P and Fitch to highlight SANDAG’s credit strengths to the rating analysts including the long-term strength and stability of San Diego’s regional economy, very strong debt service coverage, and the well-managed TransNet program. Ratings are expected the week of January 19th.

**Documents and Schedule:** Staff and the financing team have prepared documents for the Board’s consideration at their January 23, 2026, Board meeting. With Board approval, documents will be distributed to potential investors with a sale date in February 2026. If there are adverse changes in the market, SANDAG preserves the ability to delay the bond sale and monitor conditions until they are favorable and support SANDAG’s objective with the refunding.