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Senior VP

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BURGER
Vice President

MARK
JERETINA
Vice President

April 4, 2018

The Honorable Aaron Lawlor and
and Members of the County Board
County of Lake
18 North County Street
Waukegan, Illinois 60085

Dear Chairman Lawlor and County Board Members:

Bids were received today for the \$23,465,000 General Obligation Refunding Bonds (Sales Tax Alternate Revenue Source), Series 2018. There were 11 bidders who submitted a total of 49 bids. The best bid from each bidder is listed at the bottom of this letter.

Upon examination, it is our opinion that the bid of Janney Montgomery Scott LLC, Philadelphia, Pennsylvania, is the best bid received, and it is further our opinion that the bid is favorable to the County and should be accepted. After the sale, in order to accomplish the refunding, the par amount of the Bonds was adjusted to \$20,700,000. The proceeds of the Bonds will be used to refund the County's General Obligation Bonds (Sales Tax Alternate Revenue Source), Series 2008A, due November 30, 2018-2027, and to pay the costs of issuing the Bonds. The sale will result in a savings of \$2,758,275.02, worth \$2,404,435.40 on a net present value basis or 10.609% of refunded principal. We therefore recommend that the Bonds be awarded to that bidder at a revised price of \$23,315,014.35, being at a revised true interest rate of 2.4280%. The bidders are listed below.

| <u>Account Managers</u> | <u>True Interest Rate</u> |
|---|---------------------------|
| Janney Montgomery Scott LLC, Philadelphia, PA (Revised - 2.4280%)..... | 2.4178% (Original) |
| Mesirow Financial, Inc., New York, NY | 2.4284% |
| JP Morgan Securities, New York, NY | 2.4326% |
| Citigroup, Inc., Denver, CO..... | 2.4342% |
| Piper Jaffray & Co., Minneapolis, MN | 2.4422% |
| Raymond James & Associates, Inc., New York, NY | 2.4490% |
| Fifth Third Securities, Inc., Cincinnati, OH | 2.4512% |
| Wells Fargo Bank, Charlotte, NC..... | 2.4563% |
| Hutchinson, Shockey, Erley & Co., Chicago, IL | 2.4585% |
| Robert W. Baird & Co. Incorporated, Milwaukee, WI..... | 2.4730% |
| BOK Financial Securities, Inc., Oklahoma City, OK | 2.7681% |

Respectfully submitted,



Kevin W. McCanna
Chairman

KWM/rmr
Enclosures



Auction Date **Type** **Start** **End** **Time Now** **Status**
 Wed., Apr 4, 2018 AON 10:45:00 am 11:04:25 am 11:12:18 am EDT Over
 Connected to server

Reoffering Information is now available on the [Best Bid](#) Page

\$23,465,000*
 The County of Lake, Illinois
 General Obligation Refunding Bonds
 (Sales Tax Alternate Revenue Source),
 Series 2018

| | Bidder | Firm | TIC | Time | Gross Interest | + Discount/ (Premium) | Total Interest | Bid No. | Cumulative Improvement | Open Auction Savings |
|------|---------|-------------------------------|-----------|-------------|----------------|--------------------------|----------------|--------------------|------------------------|----------------------|
| 1st | JANN-MD | Janney | 2.417776% | 11:02:25 am | \$6,142,959.03 | (2,908,002.59) | \$3,234,956.44 | 4 | 0.072201% | \$ 34,545.25 |
| 2nd | MESI-JM | Mesirow | 2.428441% | 11:01:31 am | \$6,142,959.03 | (2,894,902.95) | \$3,248,056.08 | 5 | 0.058966% | - |
| 3rd | JPMO-JM | JP Morgan | 2.432599% | 11:00:28 am | \$6,142,959.03 | (2,889,799.34) | \$3,253,159.69 | 3 | 0.013320% | - |
| 4th | CITI-EF | Citigroup | 2.434225% | 11:03:37 am | \$6,142,959.03 | (2,887,803.89) | \$3,255,155.14 | 6 | 0.019496% | - |
| 5th | PIPE-MF | Piper Jaffray | 2.442206% | 11:00:25 am | \$6,142,959.03 | (2,878,011.41) | \$3,264,947.62 | 3 | 0.036784% | - |
| 6th | RAYM-RS | Raymond James | 2.449041% | 10:59:42 am | \$6,142,959.03 | (2,869,629.55) | \$3,273,329.48 | 4 | 0.011488% | - |
| 7th | FIFT-GK | Fifth Third | 2.451207% | 10:58:57 am | \$6,142,959.03 | (2,866,973.44) | \$3,275,985.59 | 8 | 0.096453% | - |
| 8th | WACH-WI | Wells Fargo | 2.456276% | 10:57:37 am | \$6,142,959.03 | (2,860,761.55) | \$3,282,197.48 | 10 | 0.096059% | - |
| 9th | HUTC-JV | Hutchinson | 2.458482% | 10:58:43 am | \$6,097,931.53 | (2,813,689.00) | \$3,284,242.53 | 1 | - | - |
| 10th | RWBA-DK | Robert Baird | 2.472955% | 10:58:02 am | \$6,142,959.03 | (2,840,334.35) | \$3,302,624.68 | 1 | - | - |
| 11th | BOSC-AM | BOK Financial | 2.768140% | 10:59:47 am | \$4,914,367.22 | (1,370,042.71) | \$3,544,324.51 | 4 | 0.213092% | - |
| | | | | | | | | Total Bids: | 49 | |

*Preliminary, subject to change

Investment Ratings:
Moody's Investors Service ... Aaa
S&P Global Ratings ... AAA/Stable

\$20,700,000
THE COUNTY OF LAKE, ILLINOIS
General Obligation Refunding Bonds
(Sales Tax Alternate Revenue Source), Series 2018

Date of Sale: April 4, 2018
Revised Average Life: 5.368 Years
Bond Buyer Index: 3.89
(Based on TIC)

| <u>Bidders*</u> | <u>Price</u> | <u>Maturities</u> | <u>Original Par Amounts</u> | <u>Revised Par Amounts</u> | <u>Rates</u> | <u>True Interest**</u> |
|---|--|--|---|--|--|---|
| Janney Montgomery Scott LLC, Philadelphia, PA | <u>Original Bid</u> 112.393% \$26,373,002.59 | 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 | \$ 2,490,000 2,080,000 2,140,000 2,200,000 2,260,000 2,325,000 2,400,000 2,460,000 2,520,000 2,590,000 \$23,465,000 | \$ 2,235,000 1,640,000 1,740,000 1,835,000 1,940,000 2,045,000 2,160,000 2,260,000 2,365,000 2,480,000 \$20,700,000 | 5.000% 5.000% 5.000% 5.000% 5.000% 5.000% 5.000% 5.000% 5.000% 5.000% | <u>Original Bid</u> 2.4178% \$3,234,956.44 <u>Revised Bid</u> 2.4280% \$2,940,360.65 |

| <u>Bidders*</u> | <u>Price</u> | <u>Maturities</u> | <u>Rates</u> | <u>True Interest**</u> |
|--|-----------------------------|-------------------|--------------|----------------------------|
| Mesirow Financial, Inc., New York, NY | 112.337% \$26,359,902.95 | 2018-2027 | 5.000% | 2.4284% \$3,248,056.08 |
| JP Morgan Securities, New York, NY Estrada Hinojosa & Company Academy Securities | 112.315% \$26,354,799.34 | 2018-2027 | 5.000% | 2.4326% \$3,253,159.69 |
| Citigroup, Inc., Denver, CO | 112.307% \$26,352,803.89 | 2018-2027 | 5.000% | 2.4342% \$3,255,155.14 |
| Piper Jaffray & Co., Minneapolis, MN | 112.265% \$26,343,011.41 | 2018-2027 | 5.000% | 2.4422% \$3,264,947.62 |

*Syndicate information is provided by the underwriter. The information contained in this report is the most current available.

**The winning bid was adjusted to reflect the new amount of \$20,700,000. All other bids were based on the pre-sale amount of \$23,465,000. The original interest on the winning bid was \$3,234,956.44 and the true interest rate was 2.4178%. The true interest rate reflects the time value of money where dollars spent in early years have a greater weight than dollars spent in later years.

\$20,700,000
THE COUNTY OF LAKE, ILLINOIS
General Obligation Refunding Bonds
(Sales Tax Alternate Revenue Source), Series 2018

| <u>Bidders*</u> | <u>Price</u> | <u>Maturities</u> | <u>Rates</u> | <u>True Interest**</u> |
|---|-----------------|-------------------|--------------|----------------------------|
| Raymond James & Associates, Inc., New York, NY | 112.229% | 2018-2027 | 5.000% | 2.4490% |
| Morgan Stanley | \$26,334,629.55 | | | \$3,273,329.48 |
| FTN | | | | |
| Rameriz | | | | |
| Fifth Third Securities, Inc., Cincinnati, OH | 112.218% | 2018-2027 | 5.000% | 2.4512% |
| | \$26,331,973.44 | | | \$3,275,985.59 |
| Wells Fargo Bank, Charlotte, NC | 112.192% | 2018-2027 | 5.000% | 2.4563% |
| | \$26,325,761.55 | | | \$3,282,197.48 |
| Hutchinson, Shockey, Erley & Co., Chicago, IL | 111.991% | 2018 | 2.000% | 2.4585% |
| | \$26,278,689.00 | 2019-2027 | 5.000% | \$3,284,242.53 |
| Robert W. Baird & Co. Incorporated, Milwaukee, WI | 112.105% | 2018-2027 | 5.000% | 2.4730% |
| | \$26,305,334.35 | | | \$3,302,624.68 |
| BOK Financial Securities, Inc., Oklahoma City, OK | 105.839% | 2018-2027 | 4.000% | 2.7681% |
| Northland | \$24,835,042.71 | | | \$3,544,324.51 |
| Hilliard | | | | |
| Tribal | | | | |

*Syndicate information is provided by the underwriter. The information contained in this report is the most current available.

**The winning bid was adjusted to reflect the new amount of \$20,700,000. All other bids were based on the pre-sale amount of \$23,465,000. The original interest on the winning bid was \$3,234,956.44 and the true interest rate was 2.4178%. The true interest rate reflects the time value of money where dollars spent in early years have a greater weight than dollars spent in later years.

\$20,700,000 *

The County of Lake, Illinois
General Obligation Refunding Bonds
(Sales Tax Alternate Revenue Source),
Series 2018

| Best AON Bidder: | Best AON TIC: | Best Revised AON TIC |
|--------------------------------|-------------------|----------------------|
| Janney Montgomery Scott | 2.417776 % | 2.427953 % |

| Due | Principal Amount * | Resized Principal Amount | Serial/ Sinker/ Term | Coupon |
|--------------|-----------------------|--------------------------------|----------------------------|--------|
| Nov 30, 2018 | \$2,490,000 | \$2,235,000 | Serial | 5.000% |
| Nov 30, 2019 | \$2,080,000 | \$1,640,000 | Serial | 5.000% |
| Nov 30, 2020 | \$2,140,000 | \$1,740,000 | Serial | 5.000% |
| Nov 30, 2021 | \$2,200,000 | \$1,835,000 | Serial | 5.000% |
| Nov 30, 2022 | \$2,260,000 | \$1,940,000 | Serial | 5.000% |
| Nov 30, 2023 | \$2,325,000 | \$2,045,000 | Serial | 5.000% |
| Nov 30, 2024 | \$2,400,000 | \$2,160,000 | Serial | 5.000% |
| Nov 30, 2025 | \$2,460,000 | \$2,260,000 | Serial | 5.000% |
| Nov 30, 2026 | \$2,520,000 | \$2,365,000 | Serial | 5.000% |
| Nov 30, 2027 | \$2,590,000 | \$2,480,000 | Serial | 5.000% |

Original Purchase Price: \$26,373,002.59

Resized Purchase Price: \$23,315,014.35

Spread: None Entered

Time Submitted: April 4, 2018 at 11:02:25 AM
EDT

* Numbers displayed in blue are post sale
adjustments.

| SpeerAuction Interest Cost Calculations (for informational purposes only) | | |
|--|----------------|----------------|
| | Original | Resized |
| Issue Size | \$23,465,000 | \$20,700,000 |
| Gross Interest | \$6,142,959.03 | \$5,555,375.00 |
| Plus Discount/(Less Premium) | (2,908,002.59) | (2,615,014.35) |
| Total Interest Cost | \$3,234,956.44 | \$2,940,360.65 |
| True Interest Rate | 2.417776% | 2.427953% |
| Total Bond Years | 122,859.18 | 111,107.50 |
| Average Life | 5.236 Years | 5.368 Years |

Firm: Janney Montgomery Scott

*Preliminary, subject to change

The foregoing bid as submitted or as revised post sale, if appropriate, was accepted and the Securities sold by action of this Board, and receipt is hereby acknowledged of the good faith Deposit, if any, which is being held in accordance with the terms of the annexed Official Notice of Sale.

Signature: _____

Title: _____

The County of Lake, Illinois

General Obligation Refunding Bonds (Sales Tax Alternate Revenue Source),

Series 2018

Dated: April 23, 2018 / Final

Debt Service Schedule

| Date | Principal | Coupon | Interest | Total P+I | Fiscal Total |
|--------------|------------------------|----------|-----------------------|------------------------|--------------|
| 04/23/2018 | - | - | - | - | - |
| 11/30/2018 | 2,235,000.00 | 5.000% | 623,875.00 | 2,858,875.00 | 2,858,875.00 |
| 05/30/2019 | - | - | 461,625.00 | 461,625.00 | - |
| 11/30/2019 | 1,640,000.00 | 5.000% | 461,625.00 | 2,101,625.00 | 2,563,250.00 |
| 05/30/2020 | - | - | 420,625.00 | 420,625.00 | - |
| 11/30/2020 | 1,740,000.00 | 5.000% | 420,625.00 | 2,160,625.00 | 2,581,250.00 |
| 05/30/2021 | - | - | 377,125.00 | 377,125.00 | - |
| 11/30/2021 | 1,835,000.00 | 5.000% | 377,125.00 | 2,212,125.00 | 2,589,250.00 |
| 05/30/2022 | - | - | 331,250.00 | 331,250.00 | - |
| 11/30/2022 | 1,940,000.00 | 5.000% | 331,250.00 | 2,271,250.00 | 2,602,500.00 |
| 05/30/2023 | - | - | 282,750.00 | 282,750.00 | - |
| 11/30/2023 | 2,045,000.00 | 5.000% | 282,750.00 | 2,327,750.00 | 2,610,500.00 |
| 05/30/2024 | - | - | 231,625.00 | 231,625.00 | - |
| 11/30/2024 | 2,160,000.00 | 5.000% | 231,625.00 | 2,391,625.00 | 2,623,250.00 |
| 05/30/2025 | - | - | 177,625.00 | 177,625.00 | - |
| 11/30/2025 | 2,260,000.00 | 5.000% | 177,625.00 | 2,437,625.00 | 2,615,250.00 |
| 05/30/2026 | - | - | 121,125.00 | 121,125.00 | - |
| 11/30/2026 | 2,365,000.00 | 5.000% | 121,125.00 | 2,486,125.00 | 2,607,250.00 |
| 05/30/2027 | - | - | 62,000.00 | 62,000.00 | - |
| 11/30/2027 | 2,480,000.00 | 5.000% | 62,000.00 | 2,542,000.00 | 2,604,000.00 |
| Total | \$20,700,000.00 | - | \$5,555,375.00 | \$26,255,375.00 | - |

Yield Statistics

| | |
|-----------------------------------|--------------|
| Bond Year Dollars | \$111,107.50 |
| Average Life | 5.368 Years |
| Average Coupon | 5.0000000% |
| Net Interest Cost (NIC) | 2.6464106% |
| True Interest Cost (TIC) | 2.4279531% |
| Bond Yield for Arbitrage Purposes | 2.3869950% |
| All Inclusive Cost (AIC) | 2.5818913% |

IRS Form 8038

| | |
|---------------------------|-------------|
| Net Interest Cost | 2.2457921% |
| Weighted Average Maturity | 5.518 Years |

The County of Lake, Illinois

General Obligation Refunding Bonds (Sales Tax Alternate Revenue Source),

Series 2018

Dated: April 23, 2018 / Final

Debt Service Comparison

| Date | Total P+I | Net New D/S | Old Net D/S | Savings |
|--------------|------------------------|------------------------|------------------------|-----------------------|
| 11/30/2018 | 2,858,875.00 | 2,858,875.00 | 2,862,181.26 | 3,306.26 |
| 11/30/2019 | 2,563,250.00 | 2,563,250.00 | 2,869,181.26 | 305,931.26 |
| 11/30/2020 | 2,581,250.00 | 2,581,250.00 | 2,885,600.00 | 304,350.00 |
| 11/30/2021 | 2,589,250.00 | 2,589,250.00 | 2,898,100.00 | 308,850.00 |
| 11/30/2022 | 2,602,500.00 | 2,602,500.00 | 2,909,062.50 | 306,562.50 |
| 11/30/2023 | 2,610,500.00 | 2,610,500.00 | 2,915,775.00 | 305,275.00 |
| 11/30/2024 | 2,623,250.00 | 2,623,250.00 | 2,927,500.00 | 304,250.00 |
| 11/30/2025 | 2,615,250.00 | 2,615,250.00 | 2,922,000.00 | 306,750.00 |
| 11/30/2026 | 2,607,250.00 | 2,607,250.00 | 2,915,750.00 | 308,500.00 |
| 11/30/2027 | 2,604,000.00 | 2,604,000.00 | 2,908,500.00 | 304,500.00 |
| Total | \$26,255,375.00 | \$26,255,375.00 | \$29,013,650.02 | \$2,758,275.02 |

PV Analysis Summary (Net to Net)

| | |
|--|----------------|
| Gross PV Debt Service Savings | 2,403,362.63 |
| Net PV Cashflow Savings @ 2.582%(AIC) | 2,403,362.63 |
| Contingency or Rounding Amount | 1,072.77 |
| Net Present Value Benefit | \$2,404,435.40 |
| Net PV Benefit / \$22,665,000 Refunded Principal | 10.609% |

Refunding Bond Information

| | |
|-------------------------|-----------|
| Refunding Dated Date | 4/23/2018 |
| Refunding Delivery Date | 4/23/2018 |

CREDIT OPINION

20 March 2018

Rate this Research



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 Asia Pacific 852-3551-3077
 Japan 81-3-5408-4100
 EMEA 44-20-7772-5454

Lake (County of) IL

Update to credit analysis

Summary

Lake County's (Aaa) stable credit profile is supported by a large, affluent tax base and a healthy financial position. Overall leverage is modest given a low debt burden and moderate pension burden, though principal amortization is somewhat below average. The county's main challenges include slow rebounding of taxable values and a modest exposure to economically sensitive sales tax revenues.

Credit strengths

- » Large, diverse tax base with above average resident income indices
- » Healthy operating reserves
- » Modest debt and pension burdens

Credit challenges

- » Though recovering, taxable values remains well below pre-recession high

Rating outlook

Outlooks are usually not assigned to local governments with this amount of debt.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Deterioration of tax base or weakening of resident income indices
- » Significant declines in fund balance or liquidity
- » Material growth in the county's debt or pension burden

Key indicators

Exhibit 1

| Lake (County of) IL | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|--------------|--------------|--------------|--------------|--------------|
| Economy/Tax Base | | | | | |
| Total Full Value (\$000) | \$80,217,258 | \$73,491,522 | \$68,972,791 | \$68,008,541 | \$70,380,510 |
| Population | 701,282 | 702,099 | 703,170 | 702,898 | 710,368 |
| Full Value Per Capita | \$114,387 | \$104,674 | \$98,088 | \$96,754 | \$99,076 |
| Median Family Income (% of USMedian) | 143.9% | 142.3% | 142.0% | 141.9% | 141.9% |
| Finances | | | | | |
| Operating Revenue (\$000) | \$241,629 | \$241,633 | \$252,953 | \$256,875 | \$262,771 |
| Fund Balance (\$000) | \$171,097 | \$175,091 | \$165,648 | \$166,473 | \$169,061 |
| Cash Balance (\$000) | \$162,735 | \$168,486 | \$158,482 | \$155,753 | \$166,844 |
| Fund Balance as a % of Revenues | 70.8% | 72.5% | 65.5% | 64.8% | 64.3% |
| Cash Balance as a % of Revenues | 67.3% | 69.7% | 62.7% | 60.6% | 63.5% |
| Debt/Pensions | | | | | |
| Net Direct Debt (\$000) | \$85,940 | \$113,865 | \$113,085 | \$199,755 | \$195,595 |
| 3-Year Average of Moody's ANPL (\$000) | \$230,653 | \$283,126 | \$293,096 | \$396,779 | \$500,840 |
| Net Direct Debt / Operating Revenues (x) | 0.4x | 0.5x | 0.4x | 0.8x | 0.7x |
| Net Direct Debt / Full Value (%) | 0.1% | 0.2% | 0.2% | 0.3% | 0.3% |
| Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x) | 1.0x | 1.2x | 1.2x | 1.5x | 1.9x |
| Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%) | 0.3% | 0.4% | 0.4% | 0.6% | 0.7% |

Source: Moody's Investors Service, the county's audited financial statements, US Census Bureau

Profile

Lake County encompasses 447 square miles in northeastern [Illinois](#) (Baa3 negative). It is the third largest county in the state, and provides a full range of governmental services to approximately 703,000 residents.

Detailed credit considerations

Economy and tax base: large, affluent tax base north of Chicago and south of Milwaukee

The county's economic stability will likely remain a credit strength given its favorable location within commuting distance to both the [Chicago](#) (Ba1 negative) and [Milwaukee](#) (A1 stable) metropolitan areas and strong resident income levels. Following several years of declines coinciding with the most recent economic downturn, Lake County's tax base has grown by a cumulative 10% over the last two years to a 2017 valuation of \$74.8 billion. Despite recent growth, the tax base remains well below its pre-recession high of \$91.6 billion. County officials anticipate growth of roughly 3% in the upcoming year, driven by modest retail and residential developments. Median family income is estimated at 141.9% of the national median.

Financial operations and reserves: financial position to remain healthy

Despite recent general fund deficits, we anticipate the county's financial position will remain stable given healthy reserves and proactive management. Following three years of moderate draws, the county closed fiscal 2016 with an available general fund balance of \$118.8 million, or a still healthy 67.3% of revenue. The shortfalls are largely attributed to rising public safety and judicial costs, as well as the planned spend down of reserves for various capital improvements. Across all operating funds (general, FICA, IMRF, health, and debt service funds), available fund balance totaled \$169.1 million or a solid 64.3% of 2016 operating revenue.

Unaudited results for fiscal 2017 project a \$1.1 million operating deficit across operating funds, largely due to a planned \$3 million use of fund balance in the health fund for capital projects. The general fund financial operations stabilized due to increased property tax receipts as the county shifted a portion of its tax levy from the health fund to the general fund. The fiscal 2018 budget reflects a \$3

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

million surplus across operating funds driven primarily by an increase in the property tax levy and increased fee and surcharge revenues, with no significant variances reported.

LIQUIDITY

The county closed fiscal 2016 with a cash position of \$166.8 million across all operating funds, equivalent to a strong 63.5% of revenue.

Debt and pensions: low debt and modest pension burden

The county's debt burden will remain modest given no additional borrowing plans. Following a planned issuance in April, Lake County's direct debt will be a modest 0.3% of full value and 0.7x operating revenues.

Moody's three-year average adjusted net pension liability (ANPL) for the county, our measure of a local government's pension burden that uses a market-based interest rate to value accrued liabilities, is \$500.8 million, equivalent to a moderate 0.7% of full value and 1.9x operating revenue. Fixed costs, inclusive of debt service and retirement contributions, were 14.3% of operating revenue in fiscal 2016.

DEBT STRUCTURE

All of the county's debt is fixed rate. Amortization is below average with 61.2% of principal retired in ten years.

DEBT-RELATED DERIVATIVES

The county is not a party to any debt-related derivatives.

PENSIONS AND OPEB

County employees participate in the Illinois Municipal Retirement Fund (IMRF), a defined benefit agent plan. For fiscal 2016, county contributions were 147.7% of the tread water¹ payment. Our tread water analysis measures whether or not a government's annual pension contributions are sufficient to pay down a portion of reported unfunded pension liabilities. After accounting for employee contributions, annual government contributions that tread water equal the sum of employer service cost and interest on the reported net pension liability at the start of the fiscal year.

The county's other post-employment benefits (OPEB) liabilities is funded on a pay as you go basis, with the county making contributions of \$1.1 million in fiscal 2016. As of December 1, 2015, the most recent actuarial valuation date, the unfunded actuarial accrued liability (UAAL) for OPEB benefits totaled \$21.8 million, or a modest 0.08x operating revenue.

Management and governance: moderate institutional framework

Illinois counties have an Institutional Framework score of A, which is moderate compared to the nation. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. Lake County is non-home rule and is subject to the Property Extension Limitation Law (PTELL), which caps property tax revenue growth to the lesser of 5% or CPI growth, plus new construction. Revenue predictability is moderate, with varying dependence on property, sales, and state-distributed income taxes. Expenditures, which are primarily for criminal justice, are moderately predictable. Counties have limited ability to reduce expenditures given strong public sector unions and pension benefits that enjoy strong constitutional protections.

Lake County's largest source of operating revenue is property taxes, which accounted for 63.3% of fiscal 2016 revenue. Though limited by PTELL, the county maintains margin under all of its capped funds. Therefore, it was able to offset valuation losses with tax rate increases and capture continuous growth in receipts. There is some exposure to economically sensitive revenues as roughly 16% of all governmental revenue comes in the form of sales taxes and 2% from income tax distributions from the state, which totaled \$61.6 million and \$8 million, respectively, in fiscal 2016. Sales tax receipts have averaged annual growth of 3.9% over the past five years, though management conservatively budgets for no increase. Additionally, county officials have budgeted for a \$1 million decrease in income tax receipts in fiscal 2018 as the state cut distributions by 10%, though we anticipate this will have minimal impact on the county's overall financial position as increases to the property tax levy will offset this loss.

Endnotes

¹ Our "tread water" indicator measures the annual government contribution required to prevent reported net pension liabilities from growing, given the entity's actuarial assumptions. An annual government contribution that treads water equals the sum of employer service cost and interest on the reported net pension liability at the start of the fiscal year. A pension plan that receives an employer contribution equal to the tread water indicator will end the

year with an unchanged net pension liability relative to the beginning of the year if all plan assumptions hold. Net liabilities may decrease or increase in a given year due to factors other than the contribution amount, such as investment performance that exceeds or falls short of a plan's assumed rate of return. Still, higher contributions will always reduce unfunded liabilities faster, or will allow unfunded liabilities to grow more slowly than lower contributions.

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RatingsDirect®

Summary:

Lake County, Illinois; General Obligation

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Summary:

Lake County, Illinois; General Obligation

| Credit Profile | | |
|--|------------|----------|
| US\$23.465 mil GO rfdg bnds (sales tax alternate rev source) ser 2018 due 11/30/2027 | | |
| Long Term Rating | AAA/Stable | New |
| Lake Cnty | | |
| Long Term Rating | AAA/Stable | Affirmed |

Rationale

S&P Global Ratings assigned its 'AAA' rating to Lake County, Ill.'s series 2018 general obligation (GO) sales tax alternate revenue source bonds. We also affirmed our 'AAA' rating on the county's outstanding GO bonds. The outlook is stable.

The series 2018 GO bonds are alternate revenue source bonds secured by the county's sales tax revenues, and by unlimited ad valorem property taxes to the extent that pledged revenues are insufficient. The county will abate the debt service levy after pledged revenues have been deposited into a debt service account. The 2018 GO bonds will be used to refund series 2008A bonds for interest cost savings.

Lake County's GO bonds are eligible to be rated above the sovereign because we believe the county can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria "Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions" (published Nov. 19, 2013, on RatingsDirect), U.S. local governments are considered to have moderate sensitivity to country risk. The institutional framework in the U.S. is predictable for local governments, allowing them significant autonomy, independent treasury management, and no history of government intervention, and we believe Lake County's very strong budgetary reserves and liquidity sufficiently demonstrate financial flexibility.

The rating reflects our assessment of the following factors for the county:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Strong management, with "good" financial policies and practices under our financial management assessment (FMA) methodology;
- Adequate budgetary performance, with an operating deficit in the general fund but break-even operating results at the total governmental fund level in fiscal 2016;
- Very strong budgetary flexibility, with an available fund balance in fiscal 2016 of 65% of operating expenditures;
- Very strong liquidity, with total government available cash at 100.3% of total governmental fund expenditures and 25.6x governmental debt service, and access to external liquidity we consider strong;
- Very strong debt and contingent liability position, with debt service carrying charges at 3.9% of expenditures and net direct debt that is 50.2% of total governmental fund revenue, as well as low overall net debt at less than 3% of

market value; and

- Strong institutional framework score.

Very strong economy

We consider the county's economy very strong. Lake County, with an estimated population of 707,030, is located in the Chicago-Naperville-Elgin, IL-IN-WI MSA, which we consider to be broad and diverse. The county has a projected per capita effective buying income of 134% of the national level and per capita market value of \$105,661. Overall, the county's market value grew by 6.3% over the past year to \$74.7 billion in 2017. The county unemployment rate was 5.2% in 2016.

Lake County is north of Chicago between Cook County and the Wisconsin state line. Lake Michigan forms the county's eastern boundary.

Lake County is one of Chicago's "collar counties" and its economy benefits from being part of the broad and diverse Chicago metropolitan area. The county's preliminary 2017 unemployment rate is 4.6%, which is below the state's 5.0% rate. The county's tax base has shown steady gains during its rebound from the last recession, and county officials expect growth to continue in the next levy year.

Leading county employers include Great Lakes Naval Training Center in North Chicago, which employs about 11,000 civilian and military personnel; Walgreens Boots Alliance, Inc. with 6,500 employed; and Aon Hewitt, LLC with 5,000 employed.

Strong management

We view the county's management as strong, with "good" financial policies and practices under our FMA methodology, indicating financial practices exist in most areas, but that governance officials might not formalize or monitor all of them on a regular basis.

County officials use generally five years of history as well as outside sources of information when constructing the budget. Once the budget is adopted, the county board receives quarterly budget reports. The county does not currently produce any formal long-term financial projections, but it does project revenues. The county has internal, multi-year capital plans but its published plan for its various facilities spans one year. The county has a five-year highway improvement plan. The county has an investment policy and the treasurer provides the board with monthly reports. The debt policy offers mainly qualitative guidelines for debt issuance but no quantitative guidelines beyond adhering to state statutory debt limits. The formal reserve policy requires reserves across the various operating funds be held in aggregate at 15% operating expenditures as well as 1.5 months' cash flow.

Adequate budgetary performance

Lake County's budgetary performance is adequate in our opinion. The county had deficit operating results in the general fund of negative 3.1% of expenditures, but a balanced result across all governmental funds of negative 0.1% in fiscal 2016.

We adjusted the county's general fund revenues to include routine transfers from its FICA (Federal Insurance Contributions Act) and IMRF (Illinois Municipal Retirement Fund) funds, which account for employer contributions

related to social security and pensions. General fund expenditures were adjusted to include annual transfers for debt service on its 2008A GO bonds.

We adjusted total governmental fund expenditures to exclude expenditures paid from bond proceeds. For instance, the county reported \$19 million of expenditures tied to its 2015 bond proceeds.

Fiscal 2015 and 2016 ended with modest, planned general fund deficits, which occurred when the county utilized a portion of its reserves to fund capital projects.

We expect performance will likely be at least adequate over the current and following year. The county budgeted balanced operations in 2017, and officials believe they will report at least breakeven results. Fiscal 2018 calls for a positive general fund result.

Property tax revenue, which accounts for 41% of general fund revenue, has shown mainly inflationary gains in 2017 and 2018. Sales and other tax revenues, which account for 24% of general fund revenue, are stable. The county reports no major variances in its expenditures, and has contingencies in place to guard against negative budget variances. In terms of personnel and personnel-related expenses, the county indicates its cost structures are predictable and manageable. Overall, we expect that the county's general fund will remain at least balanced in the current and following year.

Many of the county's other governmental funds are involved in capital-related activities, funded with a combination of grants and tax revenue. Deficits in the total governmental funds are largely due to capital spending. One exception is with respect to the county's nursing home, Winchester House. The county plans to eventually divest itself of the operation. The county turned over management to a third party, but the revenue and expenditures flow through the county's governmental funds. A new company is now operating the nursing home, and all revenues and expenditures flow through the operator. The county has agreed to cover any operating shortfalls up to \$1.5 million per year, but after the operator completes the construction of a new nursing home, the county will no longer cover any expenses. Overall, we expect the county's total governmental fund performance to remain stable for the current and following year.

Very strong budgetary flexibility

Lake County's budgetary flexibility is very strong, in our view, with an available fund balance in fiscal 2016 of 65% of operating expenditures, or \$118.8 million. We expect the available fund balance to remain above 30% of expenditures for the current and next fiscal years, which we view as a positive credit factor.

We adjusted the county's general fund reserves to account for reserves formally committed by the county board, but available if necessary. These typically consist of funds committed for future capital projects. The committed amounts may change from year to year, depending on the timing of capital spending. Overall, however, we expect the county's financial flexibility to remain very strong based on its balanced financial operations in fiscals 2017 and 2018.

Very strong liquidity

In our opinion, Lake County's liquidity is very strong, with total government available cash at 100.3% of total governmental fund expenditures and 25.6x governmental debt service in 2016. In our view, the county has strong access to external liquidity if necessary.

We adjusted the county's liquidity for unspent bond proceeds; in 2016, this amount was \$66.3 million.

We believe the county's strong access to liquidity is supported by its regular issuance of GO and water and sewer debt.

Very strong debt and contingent liability profile

In our view, Lake County's debt and contingent liability profile is very strong. Total governmental fund debt service is 3.9% of total governmental fund expenditures, and net direct debt is 50.2% of total governmental fund revenue.

Overall net debt is low at 2.8% of market value, which we consider a positive credit factor.

The county has \$183 million of GO debt outstanding, \$52 million of revenue bonds, and \$6.8 million of special service area bonds. Officials are currently in the process of completing a master facilities plan to map out capital needs over the next five to 10 years, but they currently have no plans to issue debt during the next two to three years.

Lake County's combined required pension and actual other postemployment benefits (OPEB) contributions totaled 5.4% of total governmental fund expenditures in 2016. The county made 103% of its annual required pension contribution in 2016.

The county has two defined benefit pension plans, both affiliated with the Illinois Municipal Retirement Fund (IMRF), one for regular employees and one for eligible public safety officers, the Sheriff Law Enforcement Personnel (SLEP) pension plan. The county makes its full contribution to both plans each year. In 2016, the county contributed \$15.15 million to the regular IMRF plan, slightly more than the \$14.93 million actuarially determined contribution (ADC). The plan had a net pension liability of \$86.34 million, and it was 89% funded in 2016. The county contributed \$4.75 million to the SLEP portion of the IMRF plan, slightly more than the \$4.30 million ADC. The SLEP plan has a \$37.04 million net pension liability, and it was 81% funded in 2016. The county allows its retirees to buy into the active employees' health insurance system at their own expense and so has only an implied rate subsidy for its OPEBs.

Strong institutional framework

The institutional framework score for Illinois non-home rule counties subject to the Property Tax Extension Limitation Law is strong.

Outlook

The stable outlook reflects our view of Lake County's strong to very strong credit characteristics, all of which support the 'AAA' rating and all of which we expect to be stable. As such, we do not expect to lower the rating within the two-year outlook horizon.

We could lower the rating with substantial deterioration in Lake County's budgetary performance and flexibility, although we consider this unlikely in the next two years. Additionally, we could lower the rating if the county were to issue substantial new money debt resulting in a weaker overall debt profile that, in our view, is no longer consistent with that of 'AAA' rated peers, although we consider this unlikely in the next two years.

Related Research

- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015

| Ratings Detail (As Of March 16, 2018) | | |
|---------------------------------------|------------|----------|
| Lake Cnty GO | | |
| Long Term Rating | AAA/Stable | Affirmed |
| Lake Cnty GO | | |
| Long Term Rating | AAA/Stable | Affirmed |

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