

New Issue: Moody's assigns Aa1 to Village of Mundelein, IL's \$3.5M GO ser. 2013

Global Credit Research - 21 Nov 2013

Aa1 affects \$17.3 GO debt including current issuance

MUNDELEIN (VILLAGE OF) IL
Cities (including Towns, Villages and Townships)
IL

Moody's Rating

ISSUE	RATING
General Obligation Refunding Bonds Series 2013	Aa1
Sale Amount	\$3,475,000
Expected Sale Date	12/09/13
Rating Description	General Obligation

Moody's Outlook NOO

Opinion

NEW YORK, November 21, 2013 --Moody's Investors Service has assigned a Aa1 rating to the Village of Mundelein, IL's \$3.5 million General Obligation (GO) Refunding Bonds, Series 2013. Debt service on the Series 2013 bonds is secured by the district's GO pledge which benefits from a dedicated property tax levy not limited by rate or amount. Bond proceeds will be used to refund the Series 2005 bonds for interest rate savings. Concurrently, Moody's affirmed the Aa1 rating on the village's outstanding GO debt. Post sale, the village will have \$17.3 million of outstanding GO debt, all of which is rated by Moody's.

SUMMARY RATINGS RATIONALE

The Aa1 rating reflects the villages moderately sized tax base that has experienced recent valuation declines, solid General Fund reserves relative to revenues despite a recent decline due to a one time capital expenditure, revenue raising flexibility afforded by its Home Rule status, and low debt burden.

STRENGTHS

- Large General Fund reserves relative to revenues despite a recent draw to finance construction of an administration building
- Home Rule status provides substantial revenue raising flexibility
- Low debt burden with no future debt expected over the near or medium term

CHALLENGES

- Tax base is relatively small for the rating category and has declined in recent years
- Share of unfunded pension liabilities is above the national average

DETAILED CREDIT DISCUSSION

MODERATELY SIZED TAX BASE EXPERIENCING VALUATION DECLINES

We expect the village's tax base to continue benefitting from its location within the Chicago metropolitan area as well as reported improvement in residential and commercial building activity. Located approximately 35 miles

northwest of downtown Chicago, IL (GO rated A3/negative outlook), the home rule suburban community is mostly residential, 75% of total full value, followed by commercial, 16%, and industrial, 9%. The tax base, fully valued at \$2.4 billion, has depreciated over each of the past three years and fell by 9.3% in 2012, the largest decline since at least 2003. Management reports these declines are due to the general softening of the village's housing market related to the economic downturn, but that numerous stalled residential development projects have regained momentum. Officials are hopeful the renewed residential building, combined with several commercial expansions, will help to stabilize property values in the future.

Large scale economic development efforts are focused on redeveloping the village's downtown area, which surrounds a commuter rail train station providing access to downtown Chicago. Officials report that the second building of a planned nine building apartment complex is currently being constructed in the area and will contain approximately 60 units. The first building is already complete and currently houses 84 units. A number of commercial expansions are also taking place, according to officials. Wal-Mart Stores, Inc. (long-term rated Aa2/stable outlook) is expected to redevelop a shopping center and open one of its supercenters in 2014. Additionally, manufacturers in industries such as food production and hospital supplies have expanded or are planning expansions. Medline, the village's largest employer with 1,500 workers, increased its factory footprint in 2011 and plans to add up to 600 jobs over the next eight years, according to officials.

The Villages demographic trends are relatively favorable. The population has been stable since 2000, according to data from the Census Bureau. Wealth levels are above average and are supported by the broad array of employment opportunities available in the larger Chicago area. Median family income is 139% of the national average and 129% of the state average, according to 2006-2010 estimates from the American Community Survey. Furthermore, at 7.5% in August 2013, the unemployment rate is in line with the national average and well below the state's 9% rate. On the downside, total employment has trended lower in 2013 from a year ago, according to data from the Bureau of Labor Statistics.

STRONG FINANCIAL POSITION DRIVEN BY FINANCIAL FLEXIBILITY AND LARGE COUPLED WITH SOLID RESERVES

We expect the village's financial position will remain strong due to the revenue raising flexibility afforded by the village's Home Rule status and its solid General Fund reserves relative to revenues. The village's General Fund ended fiscal 2012 with a \$3.2 million operating surplus driven largely by improvement in revenues such as sales tax receipts and reduced capital expenditures. The fiscal 2012 General Fund balance rose to \$18.9 million, or an ample 77% of revenues. In Fiscal 2013, management transferred \$6 million from the General Fund to finance construction of its new down town village hall. Despite the draw on fund balance, General Fund reserves represent a still solid 55% of fiscal 2013 revenues. The village has a formal fund balance policy to maintain at least four months of annual expenditures in reserves. General Fund reserves in excess of six months of expenditures are considered for capital project purposes, but at this time the village has no plans to significantly draw down reserves.

For fiscal 2014, management is budgeting for a \$447,000 operating surplus that will drive the General Fund balance up 13.7 million or 57% of budgeted revenues. Officials also report that a sales tax rebate agreement with several large retailers will expire in fiscal 2015, providing the General Fund with an additional \$500,000 annually. The village does not foresee any significant changes to its operations.

As a home rule community, the village has unlimited property taxing and debt issuing authority, as well as the ability to impose an array of additional local taxes. Property taxes are the largest single revenue source, accounting for 33% of operated revenues in fiscal 2013, followed by intergovernmental sales taxes, 17%, intergovernmental income taxes, 13%, and home rule sales taxes, 12%. Sales tax receipts have improved compared to their trough in 2010 while state shared income tax receipts in fiscal 2013 registered \$800,000 above budgeted expectations. Although property values have declined in recent years, the village has increased its levy rates in lockstep, resulting in property tax revenue growth. We believe the revenue flexibility granted by the village's home rule status coupled with its solid reserves are indications of positive future financial trends.

LOW DEBT BURDEN WITH LIMITED FUTURE BORROWING PLANNED

We expect the village's debt burden to remain manageable given its low level of debt outstanding and lack of future borrowing plans. Net direct debt is relatively low at 0.7% of full valuation; inclusive of overlapping debt, the debt burden rises to a modest 3% of full valuation. Principal amortization is average, with 79% of principle paid off in the next 10 years. All of the village's debt is fixed rate, and it is not a party to any interest rate swap agreements. Management reports that the village may return to the bond market again in five to ten years to finance construction of a public works facility.

SHARE OF UNFUNDED PENSION LIABILITIES IS ABOVE AVERAGE

The village has a higher than average employee pension burden, based on unfunded liabilities for its participation in multiple-employer plans administered by the state and a two single employer plan. Reported unfunded pension liabilities include an estimated \$6.4 million for the village's portion of the statewide Illinois Municipal Retirement Fund (IMRF), an estimated \$13.4 million for its portion of the villages Police Pension Plan, and an estimated \$3 million for the villages Firefighters' Pension Plan, as of April 30, 2011. Together, these reported liabilities amount to \$22.7 million, or about 96% of the village's fiscal 2011 operating fund revenues.

Moody's adjusted net pension liability (ANPL) for the village, under our methodology for adjusting reported pension data, is \$37.8 million, or 1.6 times operating fund revenues, compared to just below a median of 1.0 times for Moody's rated local governments. The ANPL for the village's share of IMRF is \$12 million, the ANPL for its share of the Police Pension Plan is \$19.6 million, and the ANPL for its share of the Firefighters' Pension Plan is \$6.2 million. Moody's ANPL reflects certain adjustments we make to improve comparability of reported pension liabilities. The adjustments are not intended to replace the village's reported liability information, but to improve comparability with other rated entities. We determined the village's share of liability for the multi-employer plan in proportion to its contributions to the plan. Changes to the contribution structure would lead to an increase in the liabilities allocated to the village.

WHAT COULD CHANGE THE RATING UP:

- Material growth in full valuation
- Strengthening of the village's socio-economic profile

WHAT COULD CHANGE THE RATING DOWN:

- Materially narrowing of available reserves or liquidity
- Erosion of the village's tax base and demographic profile

KEY STATISTICS:

2010 Census population: 31,064 (0.4% increase since 2000)

2012 Full valuation: \$2.4 billion (2.4% average annual decline over past five years)

2012 Full Value per Capita (Estimate): \$78,364

2006-2010 Median Family Income as a % of state: 128.7% (139.4% of US)

2006-2010 Per Capita Income as a % of state: 117.4% (123.7% of US)

Unemployment rate (August 2013): 7.5% (IL at 9%; US at 7.3%)

Fiscal 2013 General Fund balance: \$13.2 million or 54.5% of revenues

Direct Debt burden: 0.7% (3% including overlapping debt)

Amortization of principal (10 years): 78.8%

Moody's adjusted net pension liability (ANPL): \$37.8 million (1.6 times operating revenues)

Post-sale long term GO debt: \$17.3 million

PRINCIPAL RATING METHODOLOGY

The principal methodology used in this rating was General Obligation Bonds Issued by US Local Governments published in April 2013. Please see the Credit Policy page on www.moody.com for a copy of this methodology.

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CREDIT OPINION

20 June 2017

Update

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Mundelein (Village of) IL

Update - Moody's Downgrades Village of Mundelein, IL's GO to Aa2; Outlook Negative

Summary Rating Rationale

Moody's Investors Service has downgraded to Aa2 from Aa1 the rating on the Village of Mundelein, IL's general obligation unlimited tax (GOULT) debt. The village has \$13.9 million of rated GOULT debt outstanding, all of which is rated by Moody's. A negative outlook has been assigned.

The downgrade to Aa2 reflects the village's elevated pension burden which has grown substantially in recent years. Also incorporated into the Aa2 rating is village's moderately sized tax base and affluent demographic profile; sound reserves with significant financial flexibility derived as a home rule unit of government; and a moderate debt burden.

Credit Strengths

- » Home rule government providing flexibility to enhance revenue
- » Low debt burden
- » Strong socioeconomic profile

Credit Challenges

- » Erosion of cash and available fund balance though reserves remain sound
- » Substantial growth in unfunded pension liabilities

Rating Outlook

The negative outlook reflects the expectation that the village's already elevated pension burden will continue to rise given current contribution practices. Also incorporated is the village's trend of eroding reserves. Should the village not halt the decline in reserves as projected, it could place downward pressure on the rating.

Factors that Could Lead to an Upgrade

- » Ability to generate operating surpluses while improving pension contribution practices
- » Moderation of the village's pension burden

Factors that Could Lead to a Downgrade

- » Decline in available fund balance or liquidity

» Growth in the debt or pension burden

Key Indicators

Exhibit 1

Mundelein (Village of) IL	2012	2013	2014	2015	2016
Economy/Tax Base					
Total Full Value (\$000)	\$ 2,659,821	\$ 2,412,363	\$ 2,270,147	\$ 2,204,265	\$ 2,266,898
Full Value Per Capita	\$ 84,423	\$ 76,967	\$ 72,073	\$ 69,702	\$ 72,975
Median Family Income (% of US Median)	137.7%	139.5%	133.3%	129.3%	129.3%
Finances					
Operating Revenue (\$000)	\$ 27,409	\$ 27,211	\$ 27,388	\$ 28,422	\$ 29,299
Fund Balance as a % of Revenues	77.8%	57.4%	54.2%	48.6%	46.9%
Cash Balance as a % of Revenues	71.3%	51.2%	48.6%	42.0%	32.9%
Debt/Pensions					
Net Direct Debt (\$000)	\$ 21,595	\$ 20,112	\$ 17,080	\$ 15,670	\$ 13,925
Net Direct Debt / Operating Revenues (x)	0.8x	0.7x	0.6x	0.6x	0.5x
Net Direct Debt / Full Value (%)	0.8%	0.8%	0.8%	0.7%	0.6%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	1.9x	2.1x	2.4x	2.9x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	2.1%	2.6%	3.1%	3.7%

Source: Moody's Investors Service, Audited Financial Statements, U.S. Census data

Detailed Rating Considerations

Economy and Tax Base: Moderately Sized Tax Base Near Chicago

We expect Mundelein's tax base to continue to benefit from its location within the Chicago metropolitan area that supports an affluent demographic profile. The village is located in Lake County (Aaa), about 40 miles northwest of Chicago and serves approximately 31,000 residents. From 2011 through 2015, tax base valuation declined at an average annual rate of 5.4% and a cumulative 24%. After five consecutive years of full value decline, the village's tax base grew 1.8% in 2016 to \$2.3 billion. As a home rule unit of government, Mundelein has the flexibility to increase its tax rate to offset valuation fluctuations. The village's wealth levels are strong with median family income at 129.3% and 119.3% of national and state levels. Mundelein's 4.1% unemployment rate was slightly below Illinois' 4.4% unemployment rate.

Financial Operations and Reserves: Sound Financial Position with Significant Revenue Raising Flexibility

Despite a multi-year trend of operating deficits, the village's financial position is expected to remain satisfactory going forward given recent expenditure adjustments and its significant revenue raising flexibility. The village closed each of the last four fiscal years with operating deficits, reducing its operating fund (general, IMRF, social security and debt service funds) from a high of \$21.3 million or 77.8% of operating revenues in fiscal 2012 to \$13.7 million or 46.9% of operating revenues in fiscal 2016. The decline in fund balance was partially attributed to the use of \$6.6 million in fund balance for capital in fiscal 2013 and stagnant revenue due in part to management's decision to hold the property tax levy flat. Management anticipates using \$500,000 of general fund reserves to purchase property in fiscal 2017. The village has adopted a balanced general fund budget for fiscal 2018 achieved through \$2.5 million in staff reductions.

LIQUIDITY

The village's liquidity across major operating funds is a strong \$9.6 million, or 32.9% of revenues in fiscal 2016. Cash is lower than the available fund balance due in part to a \$2.0 million interfund receivable in the general fund, which is owed from the Archer Business Center Fund (\$1.2 million), Stormwater Management Fund (\$745,000), and the Motor Fuel Tax Fund (\$363,000). The Archer Business

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Center Fund advance is anticipated to be repaid in seven years through the lease payments associated with the property being leased out.

Debt and Pensions: Growing Leverage Related to Unfunded Pension Liabilities

The village's leverage is expected to continue to grow given current pension contribution practices. Net direct debt of the village is average at 0.6% of full value and 0.5 times operating revenue. Currently, management is considering a \$12 million issuance for a new public works building in the next two years.

The three-year average Moody's adjusted net pension liability, our measure of a local government's pension burden, is a high 3.7% of full value and 2.9 times operating revenues. Total fixed costs, inclusive of debt service and retirement contributions, were \$4.7 million or 16.1% of fiscal 2016 operating revenues. However, had the village contributed the actuarially required amount to its pensions plans, fixed costs would have risen to 16.9%.

DEBT STRUCTURE

All of the village's debt is fixed rate and amortizes over the long-term.

DEBT-RELATED DERIVATIVE

The village is not a party to any derivative agreements. Principal amortization is average with 81% paid out in 10 years.

PENSIONS AND OPEB

While the village's debt burden is low, its unfunded pension liabilities are high for its rating category and growing. Village employees participate in one of two single employer defined benefit pension plans (police and fire) or the Illinois Municipal Retirement Fund (IMRF) a multiple employer agent plan. On a reported basis, liabilities have increased by 93% over the past three years growing to \$55.1 million in fiscal 2016 from \$28.5 million in fiscal 2014. The village's one year ANPL grew 91% over that same period from \$59.1 million to \$112.9 million bringing the three year average to \$84.7 million, an above average 2.9 times revenue, or 3.7% of full value. Key sources of growth in the ANPL include investment returns that fell short of plan assumptions, village contributions that were not sufficient to cover interest accruing annually on accumulated unfunded liabilities, changes in IMRF reporting of liabilities and updated mortality assumptions.

The village's pension contributions historically fell short of the actuarial recommended contributions, with a cumulative underfunding between 2012 and 2016 of \$1.1 million. In fiscal 2016, the village contributed \$3.2 million to its three plans. This was \$200,000 or 0.7% of operating revenue short of the actuarially required contribution and \$984,000 or 4.0% of operating revenue short of the amount needed for both plans to tread water. Tread water is equivalent to the amount that is necessary to be contributed to forestall further growth in reported unfunded liabilities assuming other plan assumptions hold. The measure utilizes the reported blended discount rates of just under 6.0%. The village contributes according to the state required minimum, which requires public safety plans be 90% funded by 2040, a standard that falls short of both the actuarial required contribution and tread water.

Unfunded OPEB liabilities do not pose a significant credit challenge to the village. Mundelein closed fiscal 2016 with an unfunded OPEB liability of \$921,000, or 0.2 times operating revenue. The village's pay-go OPEB cost in fiscal 2016 was \$80,000 or a modest 0.3% of revenue.

Management and Governance: Moderate Institutional Framework

Illinois villages 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. Revenue-raising ability is moderate overall but varies considerably. Home rule entities like Mundelein have substantial revenue-raising authority. Non-home rule entities are subject to tax rate limitations. Total operating tax yield for non-home rule entities subject to the Property Extension Limitation Law (PTELL) is capped 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 are moderately predictable but cities have limited ability to reduce them given strong public sector unions and pension benefits that enjoy strong constitutional protections.

Given the state's fiscal stress, cuts in local government revenue sharing, particularly allocation of state income tax revenue, remains a potential operating challenge. State shared income taxes made up 11.3% of Mundelein's operating revenue in fiscal 2016. Local property taxes and sales taxes make up 32.0% and 11.7% of current operating revenue, respectively. Mundelein's home rule status

provides it broad legal flexibility to raise revenue as it is not subject to property tax levy limits, has no statutory debt ceiling, and has the power to impose a variety of taxes without voter approval. Management has a formal fund balance policy to maintain four to six month of general fund expenditures in reserve, with any excess to be used for one-time capital.

Legal Security

The village's GO debt is secured by ad valorem taxes, which may be levied without limitation as to rate or amount.

Use of Proceeds

Not applicable.

Obligor Profile

Mundelein is located in Lake County (Aaa) 40 miles northwest of Chicago and serves approximately 31,000 residents.

Methodology

The principal methodology used in this rating was US Local Government General Obligation Debt published in December 2016. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

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REPORT NUMBER 1078303

CREDIT OPINION

11 October 2017

New Issue

Rate this Research >>

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Mundelein (Village of) IL

New Issue - Moody's Assigns Aa2 to Mundelein, IL's GO Bonds; Outlook Negative

Summary Rating Rationale

Moody's Investors Service assigns a Aa2 rating to the Village of Mundelein, IL's \$5.9 million General Obligation Refunding Bonds, Series 2017. Moody's maintains the Aa2 on the village's general obligation unlimited tax (GOULT) debt. Following the current sale, the village will have \$12.5 million of Moody's rated GOULT bonds outstanding. The outlook for the village remains negative.

The Aa2 rating reflects village's moderately sized tax base and affluent demographic profile; sound reserves despite recent trend of declining liquidity; moderate debt burden and above average pension burden.

Credit Strengths

- » Home rule government authority provides flexibility to enhance revenue
- » Low debt burden
- » Strong socioeconomic profile

Credit Challenges

- » Erosion of cash and available fund balance though reserves remain sound
- » Above average and growing pension burden

Rating Outlook

The negative outlook reflects the expectation that the village's already elevated pension burden will continue to rise given current contribution practices. Also incorporated is the village's trend of declining liquidity, which if not halted as projected could result in downward rating movement.

Factors that Could Lead to an Upgrade

- » Ability to generate operating surpluses while improving pension contribution practices
- » Moderation of the village's pension burden

Factors that Could Lead to a Downgrade

- » Failure to begin to restore cash balances as projected

» Substantial further growth in village's pension or debt burden

Key Indicators

Exhibit 1

Mundelein (Village of) IL	2012	2013	2014	2015	2016
Economy/Tax Base					
Total Full Value (\$000)	\$ 2,659,821	\$ 2,412,363	\$ 2,270,147	\$ 2,204,265	\$ 2,266,898
Full Value Per Capita	\$ 84,423	\$ 76,967	\$ 72,073	\$ 69,702	\$ 72,975
Median Family Income (% of US Median)	137.7%	139.5%	133.3%	129.3%	129.3%
Finances					
Operating Revenue (\$000)	\$ 27,409	\$ 27,211	\$ 27,388	\$ 28,422	\$ 29,299
Fund Balance as a % of Revenues	77.8%	57.4%	54.2%	48.6%	46.9%
Cash Balance as a % of Revenues	71.3%	51.2%	48.6%	42.0%	32.9%
Debt/Pensions					
Net Direct Debt (\$000)	\$ 21,595	\$ 20,112	\$ 17,080	\$ 15,670	\$ 13,925
Net Direct Debt / Operating Revenues (x)	0.8x	0.7x	0.6x	0.6x	0.5x
Net Direct Debt / Full Value (%)	0.8%	0.8%	0.8%	0.7%	0.6%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	N/A	1.9x	2.1x	2.4x	2.9x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	N/A	2.1%	2.6%	3.1%	3.7%

Source: Moody's Investors Service, Audited Financial Statements, U.S. Census data

Detailed Rating Considerations

Economy and Tax Base: Moderately sized tax base showing signs of growth

We expect Mundelein's tax base to continue to benefit from its location within the Chicago metropolitan area and an affluent demographic profile. The village is located in [Lake County](#) (Aaa no outlook), about 40 miles northwest of [Chicago](#) (Ba1 negative outlook) and serves approximately 31,000 residents. After five consecutive years of full value decline, the village's tax base grew by 2.8% in 2016 and by 6.4% in 2017 to \$2.4 billion. Management of the village reports that development continues, including both commercial and residential developments.

The village's wealth levels are strong with median family income at 129.3% of the national level. As of July 2017, Mundelein's unemployment rate of 4.0% was well below the Illinois and national unemployment rates of 4.9% and 4.6%, respectively.

Financial Operations and Reserves: Financial position remains adequate, but liquidity has eroded

The district's reserves position remains solid despite recent erosion and operations are projected to stabilize going forward given recent expenditure adjustments. The village closed each of the last four fiscal years with operating deficits, reducing its operating fund (general, IMRF, social security, and debt service funds) to \$13.7 million, or 46.9% of operating revenues in fiscal 2016 from a high of \$21.3 million, or 77.8% of operating revenues in fiscal 2012. The majority of reserves are in the general fund (\$12.3 million) indicating a high degree of reserve flexibility. The decline in fund balance was partially attributed to the use of \$6.6 million in fund balance for capital in fiscal 2013 and stagnant revenue due in part to management's decision to hold the property tax levy flat.

While audited results are not yet available for fiscal 2017, draft statements indicate the operating fund balance will decline further to \$12.0 million, or just over 40.0% of operating revenues due to lower than budgeted sales tax revenues. The village has adopted a balanced general fund budget for fiscal 2018 achieved through \$2.5 million in staff reductions.

The village has moderate exposure to economically sensitive revenue streams, with income taxes and sales taxes making up 11% and 12% of current operating revenue, respectively. Management anticipates that an increase in the property tax levy will offset the state's recently adopted 2% sales tax collection fee in fiscal 2018.

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.moodys.com for the most updated credit rating action information and rating history.

LIQUIDITY

The village's liquidity across major operating funds has steadily declined. Preliminary financial statements, indicate that cash declined to \$7.1 million, or 24.9% of operating revenue in fiscal 2017 from \$19.5 million, or 71.3% of operating revenue in fiscal 2012. Management reports that cash will begin to be restored in fiscal 2018 as interfund receivables begin to be repaid.

Cash has declined and is lower than fund balance due in large part to a \$3.5 million interfund receivable in the general fund, which is owed from the Archer Business Center Fund (\$1.3 million), Stormwater Management Fund (\$1.2 million), Tax Increment Area Finance Fund (\$423,000), Tree Fund (\$370,000) and Motor Fuel Tax Fund (\$232,000). The Archer Business Center Fund advance is anticipated to be repaid in seven years with revenue generated from property leases. Management also created a new stormwater fee that is anticipated to generate approximately \$500,000 annually to be used towards repaying the advance over several years and for capital upgrades.

Debt and Pensions: Growing leverage related to unfunded pension liabilities

The village's leverage is expected to continue to grow given current pension contribution practices. Net direct debt of the village is low at 0.6% of full value and 0.5x operating revenue. In addition to this sale, management is considering a \$12 million issuance for a new public works building in the next 3-4 years.

The three-year average Moody's adjusted net pension liability, our measure of a local government's pension burden, is a high 3.7% of full value and 2.9x operating revenues. Total fixed costs, inclusive of debt service and retirement contributions, were \$4.7 million or 16.1% of fiscal 2016 operating revenues.

DEBT STRUCTURE

All of the village's debt is fixed rate and long-term. Principal amortization is fast with 100% of debt paid out in 15 years.

DEBT-RELATED DERIVATIVES

The village is not part to any derivative agreements.

PENSIONS AND OPEB

While the village's debt burden is low, its unfunded pension liabilities are high for its rating category and growing. Village employees participate in one of two single employer defined benefit pension plans (police and fire) or the Illinois Municipal Retirement Fund (IMRF) a multiple employer agent plan. On a reported basis, liabilities have increased by 93% over the past three years growing to \$55.1 million in fiscal 2016 from \$28.5 million in fiscal 2014. The village's one year ANPL grew 91% over that same time-period to \$112.9 million from \$59.1 million, bringing the three year average to \$84.7 million, an above average 2.9x revenue, or 3.7% of full value. Key sources of growth in ANPL include investment returns that fell short of plan assumptions, village contributions that were not sufficient to cover interest accruing annually on accumulated unfunded liabilities, changes in IMRF reporting of liabilities and updated mortality assumptions.

The village sizes its pension contributions to meet the state required minimum, which requires public safety plans be 90% funded by 2040. While meeting the state requirement, the village's pension contributions historically fell short of the actuarial recommended contributions. In fiscal 2016, the village contributed \$2.9 million to its three plans, which was \$206,000 or 0.7% of operating revenue short of the actuarially required contribution and \$1.0 million or 3.5% of operating revenue short of the amount needed for both plans to tread water. Draft results for fiscal 2017 show contributions of \$3.4 million, which was \$234,000 or 0.8% of operating revenue short of the actuarially required contribution and \$2.4 million or 8.3% of operating revenue short of the amount needed for both plans to tread water. Tread water is equivalent to the amount that is necessary to be contributed to forestall further growth in reported unfunded liabilities assuming other plan assumptions hold. The measure utilizes the reported blended discount rates of just under 6.0%.

The village's only OPEB liabilities are related to the implicit rate subsidy of allowing employees to remain to its health care plan after retirement. The associated unfunded liability was \$921,000, or modest 0.2x operating revenue.

Management and Governance: Home Rule status provides revenue raising flexibility

Illinois villages 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. Revenue-raising ability is moderate overall but varies

considerably. Home rule entities, including Mundelein, have substantial revenue-raising authority. Non-home rule entities are subject to tax rate limitations. Total operating tax yield for non-home rule entities subject to the Property Extension Limitation Law (PTELL) is capped 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 are moderately predictable but cities have limited ability to reduce them given strong public sector unions and pension benefits that enjoy strong constitutional protections.

The village's largest revenue source is property taxes, which comprised 32% of operating revenues in fiscal 2016. Mundelein's home rule status provides it broad legal flexibility to raise revenue as it is not subject to property tax levy limits, has no statutory debt ceiling, and has the power to impose a variety of taxes without voter approval.

Management has a formal fund balance policy to maintain four to six month of general fund expenditures in reserve, with any excess to be used for one-time capital.

Legal Security

The village's GO debt is secured by ad valorem taxes, which may be levied without limitation as to rate or amount.

Use of Proceeds

Proceeds from the sale will be used to advance refund some of the village's outstanding Taxable General Obligation Bonds, Series 2010A that mature on and after December 15, 2020 for anticipated interest cost savings.

Obligor Profile

Mundelein is located in [Lake County](#), about 40 miles northwest of [Chicago](#) and serves approximately 31,000 residents.

Methodology

The principal methodology used in this rating was US Local Government General Obligation Debt published in December 2016. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

Ratings

Exhibit 2

Mundelein (Village of) IL

Issue	Rating
General Obligation Refunding Bonds, Series 2017	Aa2
Rating Type	Underlying LT
Sale Amount	\$5,850,000
Expected Sale Date	10/23/2017
Rating Description	General Obligation

Source: Moody's Investors Service

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ISSUER COMMENT

22 June 2018

RATING

General Obligation (or GO Related) ¹

Aa2 Negative

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Village of Mundelein, IL

Annual Comment on Mundelein

Issuer Profile

The Village of Mundelein is located in Lake County in northeastern Illinois, approximately 32 miles northwest of downtown Chicago. The county has a population of 702,890 and a high population density of 1,570 people per square mile. The county's median family income is \$97,079 (1st quartile) and the March 2018 unemployment rate was 4.6% (2nd quartile) ². The largest industry sectors that drive the local economy are manufacturing, retail trade, and administrative/waste management services.

Credit Overview

The credit position for Mundelein is strong. Its Aa2 rating is slightly higher than the median rating of Aa3 for US cities. The key credit factors include a robust financial position, a strong wealth and income profile and a sizable tax base. It also reflects a small debt burden and a significant pension liability.

Finances: Mundelein has a healthy financial position, which is roughly aligned with the assigned rating of Aa2. The fund balance as a percent of operating revenues (43.1%) is slightly above the US median. Furthermore, the village's cash balance as a percent of operating revenues (24.9%) falls short of other Moody's-rated cities nationwide.

Economy and Tax Base: The economy and tax base of Mundelein are strong and are relatively consistent with respect to its Aa2 rating. The median family income is a healthy 129.3% of the US level. Additionally, the full value per capita (\$77,672) is roughly equivalent to the US median. Lastly, the total full value (\$2.4 billion) is slightly above other Moody's-rated cities nationwide.

Debt and Pensions: Mundelein has a light debt burden and is a credit strength relative to the assigned rating of Aa2. The village's net direct debt to full value (0.5%) is lower than the US median. That said, the pension liability of Mundelein is elevated and is a weakness in comparison to its Aa2 rating. The Moody's-adjusted net pension liability to operating revenues (3.6x) unfavorably far exceeds the US median.

Management and Governance: Illinois cities have an Institutional Framework score ³ of A, which is moderate. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. Revenue-raising ability is moderate overall but varies considerably. Non-home rule entities are subject to tax rate limitations. In addition, total operating tax yield for entities subject to the Property Tax Extension Limitation Law (PTELL) is capped to the lesser of 5% or CPI growth, plus new construction. Home rule entities have much greater legal flexibility than the rest of the sector with substantial revenue-raising authority. Revenue predictability is moderate, with varying dependence on property, sales,

and state-distributed income taxes. Expenditures are moderately predictable but cities have limited ability to reduce them given strong public sector unions and pension benefits that enjoy strong constitutional protections.

Sector Trends - Illinois Cities

Illinois cities (including towns and villages) face uncertainty stemming from the state's budgetary challenges. Sales tax revenue growth is slowing for many issuers. The positive revenue trends positioned most cities well to absorb a cut in state shared income tax distributions. Home rule cities have more revenue flexibility and are therefore less vulnerable to state pressures. Property valuations in the northern part of the state are experiencing robust recovery, though valuations remain well below previous peaks. Downstate valuations were largely stable throughout the economic cycle and have seen steady growth in valuations in recent years. Many cities face growing fixed costs arising from increasing unfunded pension liabilities and employer contribution costs. Pensions are the primary credit pressure for Illinois cities, as the state constitution severely limits reductions in public pension benefits.

EXHIBIT 1

Key Indicators ⁴ ⁵ Mundelein

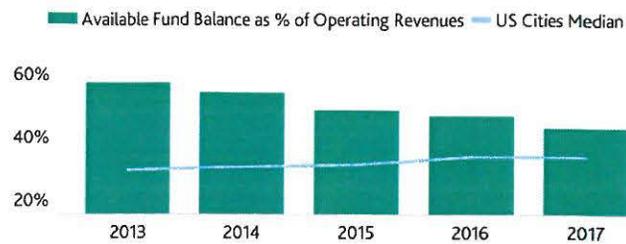
	2013	2014	2015	2016	2017	US Median	Credit Trend
Economy / Tax Base							
Total Full Value	\$2,412M	\$2,270M	\$2,204M	\$2,266M	\$2,412M	\$1,867M	Stable
Full Value Per Capita	\$76,967	\$72,073	\$69,702	\$72,975	\$77,672	\$89,200	Stable
Median Family Income (% of US Median)	140%	133%	129%	129%	129%	113%	Weakened
Finances							
Available Fund Balance as % of Operating Revenues	57.4%	54.2%	48.6%	46.9%	43.1%	33.9%	Weakened
Net Cash Balance as % of Operating Revenues	51.2%	48.6%	42.0%	32.9%	24.9%	36.9%	Weakened
Debt / Pensions							
Net Direct Debt / Full Value	0.8%	0.8%	0.7%	0.6%	0.5%	1.1%	Stable
Net Direct Debt / Operating Revenues	0.74x	0.62x	0.55x	0.48x	0.43x	0.88x	Stable
Moody's-adjusted Net Pension Liability (3-yr average) to Full Value	2.1%	2.6%	3.1%	3.7%	4.2%	1.8%	Weakened
Moody's-adjusted Net Pension Liability (3-yr average) to Operating Revenues	1.88x	2.13x	2.39x	2.88x	3.57x	1.51x	Weakened
	2013	2014	2015	2016	2017	US Median	
Debt and Financial Data							
Population	31,343	31,498	31,624	31,064	31,064	N/A	
Available Fund Balance (\$000s)	\$15,618	\$14,840	\$13,824	\$13,729	\$12,286	\$7,419	
Net Cash Balance (\$000s)	\$13,924	\$13,316	\$11,951	\$9,646	\$7,106	\$8,404	
Operating Revenues (\$000s)	\$27,211	\$27,388	\$28,422	\$29,299	\$28,511	\$21,930	
Net Direct Debt (\$000s)	\$20,112	\$17,080	\$15,670	\$13,925	\$12,135	\$18,580	
Moody's Adjusted Net Pension Liability (3-yr average) (\$000s)	\$51,206	\$58,433	\$67,915	\$84,335	\$101,843	\$32,507	

Source: Moody's Investors Service

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EXHIBIT 2

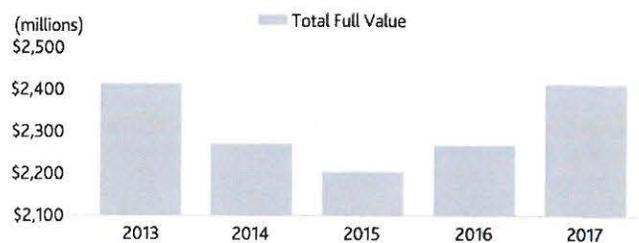
Available fund balance as a percent of operating revenues decreased from 2013 to 2017



Source: Issuer financial statements; Moody's Investors Service

EXHIBIT 3

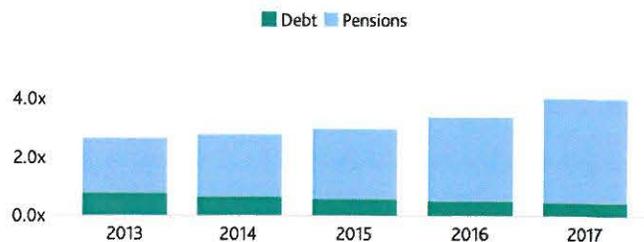
Full value of the property tax base increased from 2013 to 2017



Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

EXHIBIT 4

Moody's-adjusted net pension liability to operating revenues increased from 2013 to 2017



Source: Issuer financial statements; Government data sources; Offering statements; Moody's Investors Service

Endnotes

- The rating referenced in this report is the issuer's General Obligation (GO) rating or its highest public rating that is GO-related. A GO bond is generally backed by the full faith and credit pledge and total taxing power of the issuer. GO-related securities include general obligation limited tax, annual appropriation, lease revenue, non-ad valorem, and moral obligation debt. The referenced ratings reflect the government's underlying credit quality without regard to state guarantees, enhancement programs or bond insurance.
- The demographic data presented, including population, population density, per capita personal income and unemployment rate are derived from the most recently available US government databases. Population, population density and per capita personal income come from the American Community Survey while the unemployment rate comes from the Bureau of Labor Statistics.

The largest industry sectors are derived from the Bureau of Economic Analysis. Moody's allocated the per capita personal income data and unemployment rate data for all counties in the US census into quartiles. The quartiles are ordered from strongest-to-weakest from a credit perspective: the highest per capita personal income quartile is first quartile, and the lowest unemployment rate is first quartile.
- The institutional framework score assesses a municipality's legal ability to match revenues with expenditures based on its constitutionally and legislatively conferred powers and responsibilities. See [US Local Government General Obligation Debt \(December 2016\)](#) methodology report for more details.
- For definitions of the metrics in the Key Indicators Table, [US Local Government General Obligation Methodology and Scorecard User Guide \(July 2014\)](#). Metrics represented as N/A indicate the data were not available at the time of publication.
- The medians come from our most recently published local government medians report, [Medians - Property values key to stability, but pension burdens remain a challenge \(March 2018\)](#) which is available on [Moody's.com](#). The medians presented here are based on the key metrics outlined in Moody's GO methodology and the associated scorecard.

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CREDIT OPINION

2 February 2019

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Mundelein (Village of) IL

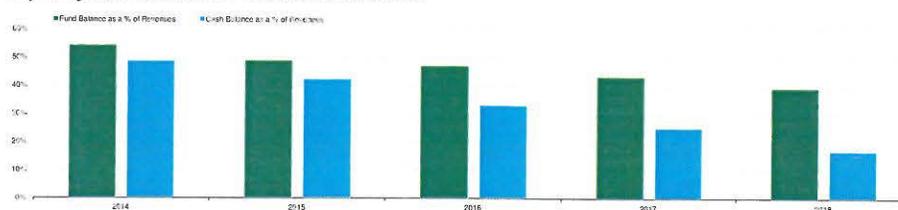
Update to credit analysis

Summary

The [Village of Mundelein, IL](#) (Aa3 negative) benefits from strong resident income levels, a moderately sized tax base in the Chicago metro, home rule revenue raising powers, and a low debt burden that could be leveraged to divert revenue currently financing capital to operations. However, liquidity continues to narrow, and the village's already high pension burden will likely grow further given current contribution practices.

On January 30, 2019, Moody's downgraded the village's general obligation unlimited tax (GOULT) rating to Aa3 from Aa2. The outlook remains negative.

Exhibit 1
Liquidity narrows due to interfund advances



Source: audited financial statements

Credit strengths

- » Strong resident income levels, moderately sized tax base in the Chicago metro
- » Home rule municipal powers provides revenue raising flexibility
- » Low debt burden and fixed costs are moderate despite high pension liabilities

Credit challenges

- » High and growing pension burden
- » Limited liquidity following substantial recent declines

Rating outlook

The negative outlook reflects a trend of draws on liquidity and the likelihood that the pension burden will continue to grow under current contribution practices.

Factors that could lead to an upgrade

- » Increase in liquidity

- » Moderation of pension burden

Factors that could lead to a downgrade

- » Continued draws on reserves
- » Major increases in debt or pension burdens

Key indicators

Exhibit 2

Mundelein (Village of) IL	2014	2015	2016	2017	2018
Economy/Tax Base					
Total Full Value (\$000)	\$2,270,147	\$2,204,265	\$2,266,898	\$2,412,816	\$2,540,744
Population	31,498	31,624	31,550	31,064	31,064
Full Value Per Capita	\$72,073	\$69,702	\$71,851	\$77,672	\$81,791
Median Family Income (% of US Median)	133.3%	129.3%	136.2%	136.2%	136.2%
Finances					
Operating Revenue (\$000)	\$27,388	\$28,422	\$29,299	\$28,511	\$28,291
Fund Balance (\$000)	\$14,840	\$13,824	\$13,729	\$12,286	\$11,063
Cash Balance (\$000)	\$13,316	\$11,951	\$9,646	\$7,106	\$4,726
Fund Balance as a % of Revenues	54.2%	48.6%	46.9%	43.1%	39.1%
Cash Balance as a % of Revenues	48.6%	42.0%	32.9%	24.9%	16.7%
Debt/Pensions					
Net Direct Debt (\$000)	\$17,080	\$15,670	\$13,925	\$12,135	\$10,330
3-Year Average of Moody's ANPL (\$000)	\$58,433	\$67,915	\$84,335	\$101,843	\$110,559
Net Direct Debt / Full Value (%)	0.8%	0.7%	0.6%	0.5%	0.4%
Net Direct Debt / Operating Revenues (x)	0.6x	0.6x	0.5x	0.4x	0.4x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	2.6%	3.1%	3.7%	4.2%	4.4%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	2.1x	2.4x	2.9x	3.6x	3.9x

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

Profile

The Village of Mundelein is located 40 miles north of downtown [Chicago](#) (Ba1 stable) in northern [Illinois](#) (Baa3 stable). It primarily provides police, fire, public works, water distribution, and sewage treatment services to its 31,550 residents.

Detailed credit considerations

Economy and tax base: strong resident income levels in Chicago metro

Mundelein's local economy and tax base will remain its primary credit strength given strong resident income levels and its favorable proximity to diverse employment in the Chicago metro. As a home rule municipality, the village can draw on its wealth given significant revenue raising authority.

The property tax base remains 12% below its peak despite the village's full value recovering to \$2.5 billion in the most recent year from a low of \$2.2 billion three years prior. Yet, because of its home rule status, the village can legally set any property tax levy on a dollar basis regardless of tax base fluctuations.

Mundelein has practical ability to increase revenues through sales and other special taxes given a strong resident income base equal to 136% of the US median family income. Major village employers include Medline Industries (900 employees) and a bevy of industrial,

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food, medical, and other manufacturers. As of September 2018, the village's unemployment rate was 3.2%, better than the state and national rates of 3.8% and 3.6%, respectively.

Financial operations and reserves: limited and declining liquidity

While the village has the capacity to restore its liquidity, the timeline for improving it is uncertain given a recent history of unpredictable financial results. Fund balance has declined in recent years for capital expenses but remains solid. However, cash has eroded substantially due to capital spending and interfund advances. Management is planning to pull back on cash financed capital and instead increase borrowing in coming years.

The village closed each of the last six fiscal years with modest draws on fund balance. Operating fund balances (including general, IMRF, social security, and debt service funds) registered at \$11.1 million or a still solid 39.1% of operating revenues in fiscal 2018, down from a high of \$14.8 million or 54.2% of operating revenues in fiscal 2014. This level is commensurate with the village's fund balance policy to maintain 4-6 months of general fund expenditures in reserves. A significant component of these draws was self-financing capital projects, although village management plans to increase borrowing in the next year to maintain reserves at a similar level. Management reports an expected increase in fund balance for fiscal 2019 of \$700,000.

LIQUIDITY

The village posted \$4.7 million in net operating cash at the end of fiscal 2018, equal to a limited 16.7% of operating revenue. This represents a major decline from fiscal 2013, when net cash was 51.2% of revenue. The village maintains additional accessible liquidity in its roads and equipment replacement funds of \$1.2 million or 4.2% of operating revenue.

Fund balance differs substantially from cash largely due to \$4.9 million in interfund loans (as of fiscal 2018) from the general fund to other funds. This includes \$1.7 million to create a storm water management utility, \$1.3 million to support its Archer Business Center industrial park and \$709,000 for downtown tax increment developments. We believe the village has identified sound sources of repayment to begin to restore liquidity and that its five year amortization plan is reasonable, but uncertainty remains given a history of negative variances in financial results. Repayment sources include net income generated from the new storm water enterprise and long term leases on existing tenants in the industrial park. Tax increment generation will likely lag the other revenue sources in repaying its downtown development loans, although we do not expect the general fund to increase support for such loans going forward. Management anticipates paying down interfund loans in coming years, leaving an expected \$3.3 million remaining at the end of fiscal 2019.

Debt and pensions: pension burden to grow; debt plans forthcoming

Mundelein's pension burden will remain high given current contribution practices, and its debt burden will increase moderately following upcoming borrowing plans. At the end of fiscal 2018, the village owed \$10.3 million in outstanding debt, equal to a low 0.4% of full value and 0.4x operating revenue. The low debt burden is largely due to the village's historic preference for financing capital through its general fund including some reserve draws. Over the next year, the village anticipates issuing \$20 million in GO bonds for a new public works facility and \$10 million in bonds for storm water improvements, financed with a dedicated 3% packaged liquor tax that took effect in October 2018. Following these sales, the village will likely have \$28.4 million in outstanding debt at the end of fiscal 2019, equal to a still moderate 1.1% of full value and 1.0x operating revenue. The village's primary leverage pressure is from unfunded liabilities owed to its police and fire pension plans. Inclusive of debt service and retirement contributions, Mundelein's fixed costs were a moderate 16.7% of operating revenue in fiscal 2018.

DEBT STRUCTURE

All of the village's debt is fixed rate and long term. Amortization of existing debt is healthy with 86% of principal retired over the next ten years. All Moody's rated debt is GOULT, which benefits from a full faith and credit pledge and dedicated property tax levy unlimited as to rate or amount.

DEBT-RELATED DERIVATIVES

The city is not a party to any derivative agreements.

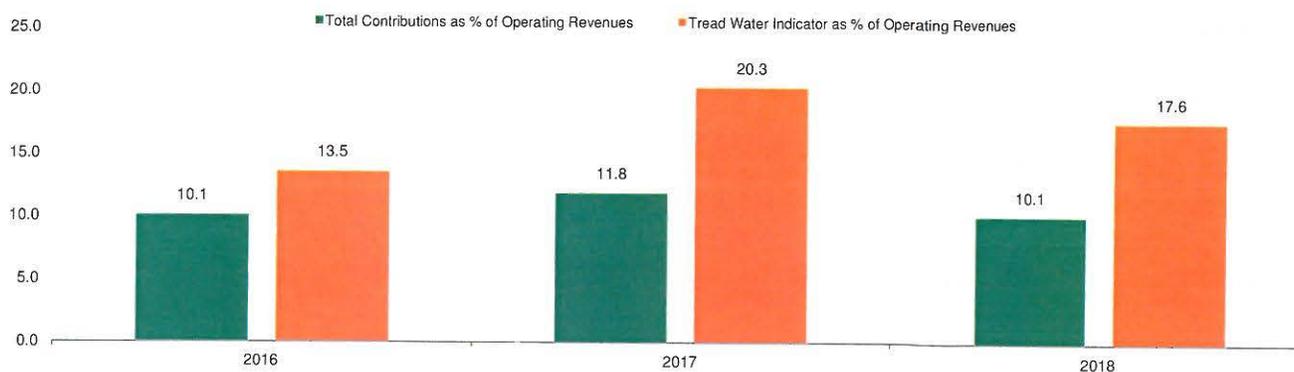
PENSIONS AND OPEB

Village employees participate in one of two single employer public safety defined benefit pension plans or the Illinois Municipal Retirement Fund (IMRF) a multiple employer agent plan. Although the police and fire plans are single employer plans, the city has no control over benefits because they are established in state statute. All the city can control is contributions.

The state requires communities to make contributions to public safety plans sufficient to reach 90% funding by 2040, a requirement that backloads payments for many cities. The village has historically contributed at the minimum amount, which is not sufficient to stem future growth in unfunded liabilities. In fiscal 2018, the village's contributions to its pension plans were \$2.1 million short of the "tread water"¹ benchmark, or 7.5% of operating revenue. The tread water indicator is sensitive to changes in the discount rates used to value public safety pension liabilities. As Mundelein's police and fire plans moved to blended discount rates of roughly 6% in 2017 from 7% in prior years, service cost increased, leading to a similar increase in its tread water indicator. The blended discount rates are low compared to the rates of many Illinois cities; however, they remain above the market rate that Moody's uses to calculate ANPL and also signal the expectation that fund outflows will outstrip assets by 2056.

Exhibit 3

Contributions lag far below tread water levels



Source: audited financial statements, GASB actuarial reports, Moody's Investors Service

The village's other post-employment benefit (OPEB) burden does not represent a material credit challenge. As of fiscal 2018, the village had an unfunded actuarial accrued liability (UAAL) of \$4.0 million, or a modest 0.14x operating revenue.

Management and governance: moderate institutional framework enhanced by home rule status

Illinois cities have an Institutional Framework score of A, which is moderate. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. Revenue-raising ability is moderate overall but varies considerably. Home rule municipalities, such as Mundelein, have substantial revenue raising flexibility. The village can raise various local taxes and fees without approval by voters or the state. Expenditures are moderately predictable but municipalities have limited ability to reduce them given pension benefits enjoy strong constitutional protections.

The village maintains a diverse revenue stream but is exposed to economically sensitive revenues. In fiscal 2018, the village's largest revenue sources included property taxes (33%), sales tax (28%) and its share of the state income tax (10%). Given a lack of rate limits as a home rule village, property tax revenues are predictable from year-to-year and are not impacted by volatility in equalized assessed valuation. The village has increased the portion of its levy to pay pension contributions in step with the state minimum funding standards, and it has kept the remaining property tax levy flat. The village also collects a 0.75% home rule sales tax, bringing the total sales tax rate to 8.0% within the municipality. In 2018, the village also raised ambulance rates, increased video gaming rates and implemented a 3% packaged liquor tax to help finance its new storm water utility.

Endnotes

- 1 Our "tread water" indicator measures the annual government contribution required to prevent reported net pension liabilities from growing, based on reported 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 tread water 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 an 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. The degree to which contributions fall below the "tread water" indicator can help quantify a structural operating imbalance stemming from pensions, even under reported assumptions. A contribution below the "tread water" level in effect suppresses expenditures by leaving an implied interest on net pension liabilities unpaid, akin to borrowing at the assumed rate of return for operations.

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