APEX MUNICIPAL FUND INC Form N-CSR February 21, 2003

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-5729

Apex Municipal Fund, Inc.

Address: P.O. Box 9011

Princeton, NJ 08543-9011

Name and address of agent for service: Terry K. Glenn, President, Apex Municipal Fund, Inc., 800 Scudders Mill Road, Plainsboro, NJ, 08536. Mailing address: P.O. Box 9011, Princeton, NJ 08543-9011

Registrant's telephone number, including area code: (609) 282-2800

Date of fiscal year end: 06/30/03

Date of reporting period: 07/01/02 - 12/31/02

Item 1 - Is shareholder report attached? - Y

[LOGO] Merrill Lynch Investment Managers

Semi-Annual Report December 31, 2002

Apex Municipal Fund, Inc.

www.mlim.ml.com

APEX MUNICIPAL FUND, INC.

Managed Dividend Policy

The Fund's dividend policy is to distribute all or a portion of its net investment income to its shareholders on a monthly basis. In order to provide shareholders with a more consistent yield to the current trading price of shares of Common Stock of the Fund, the Fund may at times pay out less than the entire amount of net investment income earned in any particular month and may at times in any particular month pay out such accumulated but undistributed income in addition to net investment income earned in that month. As a result, the dividends paid by the Fund for any particular month may be more or less than the amount of net investment income earned by the Fund during such month. The Fund's current accumulated but undistributed net investment income, if any, is

disclosed in the Statement of Assets, Liabilities and Capital, which comprises part of the financial information included in this report.

Quality Profile

The quality ratings of securities in the Fund as of December 31, 2002 were as follows:

S&P Rating/Moody's Rating	Percent of Investments
A/A	5.6%
BBB/Baa	19.6
BB/Ba B/B	18.4 7.3
CCC/Caa	0.8
NR (Not Rated) Other+	47.6 0.7

⁺ Temporary investments in short-term municipal securities.

Apex Municipal Fund, Inc., December 31, 2002

DEAR SHAREHOLDER

For the six months ended December 31, 2002, Apex Municipal Fund, Inc. earned \$.278 per share income dividends, which included earned and unpaid dividends of \$.047. This represents a net annualized yield of 6.25%, based on a period-end net asset value of \$8.84 per share. Over the same period, the Fund's total investment return was -1.07%, based on a change in per share net asset value from \$9.24 to \$8.84, and assuming reinvestment of \$.276 per share income dividends.

The Municipal Market Environment

During the six-month period ended December 31, 2002, long-term fixed income interest rates continued to move lower. As they had earlier in 2002, declining U.S. equity markets and worldwide political tensions easily overshadowed the incipient U.S. economic recovery allowing bond yields to fall to recent historic low levels. In late July, second quarter 2002 gross domestic product activity was reported at 1.1%, a significant decline from the first quarter rate of 5%. This rate suggested that continued declines in U.S. equity prices were negatively affecting not only consumer and business confidence but undermining much of the economic growth seen earlier this year. Some analysts extrapolated that recent weakness would continue, if not accelerate. This brought about forecasts that the Federal Reserve Board would soon be obliged to lower short-term interest rates both to offset equity market declines and boost consumer and business spending. The possibility of lower short-term interest rates helped push longer-term bond yields lower still during July and August. The dramatic decline in U.S. equity prices in late August and September triggered a significant fixed income rally as investors sought the safe-haven status of U.S. Treasury securities. By the end of September, U.S. Treasury bond yields had fallen to 4.66%.

Bolstered by an unexpected decline in the national unemployment rate to 5.6% in early October, U.S. equity markets staged a strong rally throughout much of the month. The Standard & Poor's 500 (S&P 500) Index rose over 8% for the month, triggered by stronger-than-expected earnings reports from a large number of companies, such as General Electric Company, International Business Machines

Corporation and Microsoft Corporation. As they have throughout most of the period, bond prices traded in an inverse relationship to equity prices. Consequently, as stocks rallied, bond yields rose in October, despite generally weak economic releases. During October, the U.S. housing sector remained quite robust, but retail sales and industrial production slowed. Fixed income bond yields remained under pressure in November as U.S. equity markets continued to strengthen. During November, the S&P 500 Index rose an additional 5.5%. Equity prices were supported by signs of further U.S. economic recovery, especially improving labor market activity. By the end of November, third quarter U.S. gross domestic product (GDP) growth was revised to 4%. Financial conditions were also strengthened by a larger-than-expected reduction in short-term interest rates by the Federal Reserve Board in early November. The Federal Funds target rate was lowered 50 basis points (.50%) to 1.25%, its lowest level since the 1960s. Recent action by the Federal Reserve Board was largely viewed as being taken to bolster the sputtering U.S. economic recovery. Rebounding U.S. equity markets and the prospects for a more substantial U.S. economic recovery pushed long-term U.S. Treasury yield levels to 5.10% by late November.

In December, softer equity prices and renewed investor concerns about potential U.S. military action against Iraq again combined to push long-term interest rates lower. The S&P 500 Index declined more than 5% in December on disappointing earnings reports and anticipated weak holiday sales. During December 2002, as both national and international investors sought the safe-haven sanctuary of U.S. Treasury issues, long-term U.S. Treasury yields declined over 25 basis points to end the period at 4.75%. During the last six months, long-term U.S. Treasury bond yields declined 75 basis points.

For the six-month period ended December 31, 2002, tax-exempt bond prices also generally rose. In recent months, municipal bond yields have declined in response to the positive fixed income environment engendered by falling equity valuations. Price advances in tax-exempt issues have not been able to keep pace with the U.S. Treasury bond price improvement as municipal bonds cannot offer foreign investors the safe-haven status U.S. Treasury obligations enjoy in periods of economic and political instability. Additionally, tax-exempt bond issuance increased dramatically in the last half of 2002 removing some of the positive technical support the municipal bond market enjoyed earlier this year. By the end of 2002, long-term municipal bond yields, as measured by the Bond Buyer Revenue Bond Index, stood at 5.16%, a decline of 25 basis points during the last six months.

Investor demand for tax-exempt products remained positive throughout the period. In addition to the approximately \$75 billion investors received from June to August 2002 from bond maturities, coupon income and proceeds from early redemptions, investors are expected to receive approximately \$30 billion from these sources in January 2003. The Investment Company Institute reported that in 2002 municipal bond funds net cash flows continued to be very positive at nearly \$16 billion, an increase of more than 25% compared to 2001. However, these positive demand factors have not been able to offset the increase in tax-exempt new-issue supply that has resulted in the underperformance seen in recent months. This price underperformance served to make municipal bonds a particularly attractive purchase relative to their taxable counterparts. Throughout most of the yield curve, municipal bonds have been available for purchase at yields near or exceeding those of comparable U.S. Treasury issues. Compared to their recent historical averages of 82% - 88% of U.S. Treasury yields, municipal bond yields ratios at their current 95% - 105% range are likely to prove attractive to long-term investors.

Continued uncertainty regarding the pace of the current U.S. economic recovery as well as the resolution of the U.N./Iraq confrontation are likely to keep interest rates near their present levels for the immediate future. Equity market declines over the past three years have helped push interest rates lower than economic fundamentals alone would support. When U.S. business conditions improve

and equity markets stabilize, however, any associated interest rate increases should not be extreme. Inflationary pressures are negligible and any move by the Federal Reserve Board to raise short-term interest rates is unlikely before late 2003. As equity valuations are likely to only gradually recover, U.S. economic recovery is also likely to be a moderate process. This suggests that the pace of any interest rate increases will be gradual. As the municipal bond market's strong technical position can be expected to remain supportive in the coming months, future tax-exempt interest rate increases should be more restrained than their taxable counterparts.

Portfolio Strategy

During the six-month period ended December 31, 2002, the high-yield tax-exempt market came under renewed pressure, as valuations remained heavily influenced by developments in the taxable corporate high-yield market. Late last summer, weaker equity markets contributed to a widening of credit spreads amid mounting investor concerns about corporate profits and the reliability of company financial statements. Portfolio investments in tax-exempt corporate-backed debt were similarly affected. Airline obligations were particularly hard hit after the sector rally earlier this year proved to be short-lived. These and other economically cyclical holdings contributed to the lackluster results during the period as high-yield fixed income markets, beset by declining liquidity and credit quality, have not participated in the rally enjoyed by both the Treasury and high grade municipal markets. Investors, perhaps more optimistic about prospects for an economic recovery, have exhibited a heightened level of risk tolerance.

Factors that had a positive effect on the Fund included concentrations in health care and tax-backed residential sectors. These sectors were largely immune to the pressures affecting corporate debt and, in fact, exhibited a tendency to rise in value relative to widely watched market benchmarks. While reasons for this strong performance vary, there is

2 & 3

Apex Municipal Fund, Inc., December 31, 2002

little doubt that widely publicized reports of corporate malfeasance influenced investors' preferences when making investment decisions. As a consequence, demand for high-yield municipal bonds shifted away from corporate-related debt to other sectors unaffected by these reports. Many of the portfolio's purchases during the period occurred within these sectors, which should help to mute some of the volatility associated with corporate issuance. Nevertheless, the Fund remains positioned to benefit from an improving economic environment. Corporate-related debt still constitutes a significant concentration within the portfolio and, given the cyclical nature of many of these holdings, the expected contraction in credit spreads is likely to provide a material and beneficial effect on Fund performance.

In Conclusion

We appreciate your ongoing interest in Apex Municipal Fund, Inc., and we look forward to serving your investment needs in the months and years to come.

Sincerely,

/s/ Terry K. Glenn

Terry K. Glenn

President and Director

/s/ Kenneth A. Jacob

Kenneth A. Jacob
Senior Vice President

/s/ John M. Loffredo

John M. Loffredo Senior Vice President

/s/ Theodore R. Jaeckel Jr.

Theodore R. Jaeckel Jr. Vice President and Portfolio Manager

January 5, 2003

SCHEDULE OF INVESTMENTS

(in Thousands)

STATE	S&P Ratings	Moody's Ratings	Face Amount	Issue
Alabama0.6%	В	NR*	\$ 1,000	Brewton, Alabama, IDB, PCR, Refundin Corporation of AmericaJefferson Sm 8% due 4/01/2009
Alaska1.2%	NR*	NR*	2,000	Alaska Industrial Development and Ex Bonds (Williams Lynxs Alaska Cargopo
Arizona2.6%	NR*	NR*	1,500	Maricopa County, Arizona, IDA, M/F H (Sun King Apartments Project), Sub-S due 11/01/2031
	NR*	Caa2	4,000	Phoenix, Arizona, IDA, Airport Facil Bonds (America West Airlines Inc. Pr due 4/01/2023
	B+	ВаЗ	1,585	Pima County, Arizona, IDA, Industria (Tucson Electric Power Company Proje due 9/01/2029
Colorado5.9%	NR*	Baa2	3,000	Denver, Colorado, Urban Renewal Auth Revenue Bonds (Pavilions), AMT, 7.75
	NR*	NR*	2,800	Elk Valley, Colorado, Public Improve (Public Improvement Fee), Series A,
	NR*	NR*	1,640	Lincoln Park, Colorado, Metropolitan 7.75% due 12/01/2026
	NR*	NR*	1,235	North Range, Colorado, Metropolitan 7.25% due 12/15/2031
	BB+	Ba1	1,145	Northwest Parkway, Colorado, Public Bonds, First Tier, Sub-Series D, 7.1
Connecticut0.8%	NR*	B1	1,305	New Haven, Connecticut, Facility Rev Corporation Project), 9.25% due 5/01
Florida10.3%	NR*	NR*	920	Arbor Greene Community Development D

			Assessment Revenue Bonds, 7.60% due
NR*	NR*	1,370	Bonnet Creek Resort, Florida, Commun
			Special Assessment Revenue Bonds, 7.
NR*	NR*	1,685	Capital Projects Finance Authority,
			Retirement Revenue Bonds (Glenridge
			Series A, 8% due 6/01/2032
NR*	NR*	2,500	Hillsborough County, Florida, IDA, E
			Bonds (National Gypsum), AMT, Series
NR*	NR*	920	Lakewood Ranch, Florida, Community D
			Number 5, Special Assessment Revenue
			Series A, 6.70% due 5/01/2031
NR*	NR*	3,100	Lee County, Florida, IDA, Health Car
			(Cypress Cove Healthpark), Series A,

Portfolio Abbreviations

To simplify the listings of Apex Municipal Fund, Inc.'s portfolio holdings in the Schedule of Investments, we have abbreviated the names of many of the securities according to the list at right.

AMT	Alternative Minimum Tax (subject to)
EDA	Economic Development Authority
GO	General Obligation Bonds
IDA	Industrial Development Authority
IDB	Industrial Development Board
IDR	Industrial Development Revenue Bonds
M/F	Multi-Family
PCR	Pollution Control Revenue Bonds
VRDN	Variable Rate Demand Notes

4 & 5

Apex Municipal Fund, Inc., December 31, 2002

SCHEDULE OF INVESTMENTS (continued)

(in Thousands)

STATE	S&P Ratings	Moody's Ratings	Face Amount	Issue
=======================================	=======================================	========	=========	
Florida (concluded)	NR*	NR*	\$ 1,650	Orlando, Florida, Urban Community De Capital Improvement Special Assessme 6.95% due 5/01/2033
	NR*	NR*	3,480	Parkway Center, Florida, Community I Special Assessment Refunding Bonds, due 5/01/2010
	NR*	NR*	3,025	Tampa Palms, Florida, Open Space and Development District Revenue Bonds, (Richmond Place Project), 7.50% due
Georgia1.6%	NR*	NR*	2,000	Atlanta, Georgia, Tax Allocation Rev Station Project), 7.90% due 12/01/20
	BBB-	Ba1	1,000	Effingham County, Georgia, IDA, PCR, Pacific Corporation Project), 6.50%
Idaho0.9%	NR*	NR*	 1 , 470	Idaho Health Facilities Authority, F

				(Valley Vista Care Corporation), Ser due 11/15/2016
Illinois3.4%	BB-	в2	3 , 000	Chicago, Illinois, O'Hare Internatio Facility Revenue Refunding Bonds (Am Project), 8.20% due 12/01/2024
	NR*	NR*	400	Chicago, Illinois, Special Assessmen 6.75% due 12/01/2032
	NR*	NR*	3,190	Illinois Development Finance Authori Health Care Centers Facilities Acqui 7.75% due 12/01/2016 Illinois Health Facilities Authority Bonds, VRDN (a):
	A1+ A1+	VMIG1+ VMIG1+	250 500	(Resurrection Health Care), Series (University of Chicago Hospitals),
Indiana2.6%	NR*	NR*	2,600	Indiana State Educational Facilities Refunding Bonds (Saint Joseph's Coll due 10/01/2029
	NR*	NR*	1,820	Indianapolis, Indiana, M/F Revenue B Club Project), Series B, 7.50% due 1
Iowa2.7%	NR*	NR*	4,000	Iowa Finance Authority, Health Care Refunding Bonds (Care Initiatives Pr due 7/01/2025
Kansas0.6%	BB+	NR*	1,000	Lenexa, Kansas, Health Care Facility Village Inc.), Series C, 6.875% due
Louisiana3.2%	BB-	NR*	5,500	Port New Orleans, Louisiana, IDR, Re Company Project), 7.50% due 7/01/201
Maryland2.1%	NR*	NR*	1,875	Anne Arundel County, Maryland, Speci Bonds (Arundel Mills Project), 7.10%
	NR*	NR*	1,500	Maryland State Energy Financing Admi Obligation Revenue Bonds (Cogenerati AMT, 7.40% due 9/01/2019
Massachusetts3.9%	ввв	NR*	825	Massachusetts State Development Fina Recovery Revenue Bonds (Ogden Haverh Series A, 6.70% due 12/01/2014 Massachusetts State Development Fina Refunding Bonds (Eastern Nazarine Co
	BB+	NR*	245	5.625% due 4/01/2019
	BB+ NR*	NR* Ba2	1,220 3,000	5.625% due 4/01/2029 Massachusetts State Health and Educa Authority, Revenue Refunding Bonds (Issue), Series A, 5.90% due 4/01/202
	NR*	NR*	1,700	Massachusetts State Industrial Finan Sewer Facility (Resource Control Com due 6/01/2010
	ВВВ	NR*	500	Massachusetts State Industrial Finan Recovery Revenue Refunding Bonds (Og AMT, Series A, 5.60% due 12/01/2019
Michigan0.6%	BBB-	Baa3	1,000	Michigan State Hospital Finance Auth Bonds (Detroit Medical Center Obliga 6.50% due 8/15/2018
Minnesota1.8%	NR*	NR*	3,160	Anoka, Minnesota, M/F Housing Revenu Apartments Project), 9.375% due 12/0

Missouri0.7%	NR*	NR*	1,200	Fenton, Missouri, Tax Increment Reve Improvement Bonds (Gravois Bluffs),
Nevada1.3%	ввв	Baa2	2,500	Henderson, Nevada, Health Care Facil Healthcare WestSaint Rose Dominica due 7/01/2026
New Jersey12.5%	========			Camden County, New Jersey, Improveme
				Revenue Bonds (Holt Hauling & Wareho
	NR*	NR*	2,000	9.625% due 1/01/2011
	NR*	NR*	4,500	9.875% due 1/01/2021
	CCC	В2	6,000	Camden County, New Jersey, Pollution Authority, Solid Waste Resource Reco Bonds, AMT, Series A, 7.50% due 12/0
	BBB-	NR*	1,400	New Jersey EDA, First Mortgage Rever Village), Series C, 5.50% due 1/01/2
	NR*	Ba3	1,500	New Jersey EDA, IDR, Refunding (News Hotel), 7% due 10/01/2014 New Jersey EDA, Retirement Community
	NR*	NR*	1,000	(Cedar Crest Village Inc. Facility
	NR*	NR*	3,700	(Seabrook Village Inc.), 8.125% du
	B+	В3	3,050	New Jersey EDA, Special Facility Rev Airlines Inc. Project), AMT, 6.625%
	NR*	Baa1	1,410	New Jersey Health Care Facilities Fi Bonds (South Jersey Hospital), 6% du
	A	A1	2,485	Tobacco Settlement Financing Corpora Asset-Backed Revenue Refunding Bonds
New Mexico3.0%	B+	Ba3	5 , 000	Farmington, New Mexico, PCR, Refundi Power CoSan Juan Project), Series
New York2.4%	NR*	NR*	350	New York City, New York, City IDA, (Bonds, Series C, 6.80% due 6/01/2028
	BBB-	Ba2	1,730	New York City, New York, City IDA, S Bonds (British Airways PLC Project), due 12/01/2032 Utica, New York, GO, Public Improver
	BBB	Ba1	700	9.25% due 8/15/2004
	BBB	Ba1	700	9.25% due 8/15/2005
	BBB	Ba1	635	9.25% due 8/15/2006
North Carolina	======= NR*	NR*	1,600	North Carolina Medical Care Commissi First Mortgage Revenue Refunding Bor Project), 7% due 10/01/2031
Ohio1.1%	======== B+	вз	3 , 135	Cleveland, Ohio, Airport Special Rev (Continental Airlines Inc. Project),

6 & 7

Apex Municipal Fund, Inc., December 31, 2002

SCHEDULE OF INVESTMENTS (concluded) (in Thousands)

	S&P	Moody's	Face	
STATE	Ratings	Ratings	Amount	Issue

Oklahoma0.2%	BB-	B2	\$ 420	Tulsa, Oklahoma, Municipal Airport T Bonds (AMR), AMT, Series A, 5.80% du
Oregon0.6%	NR*	NR*	1,000	Western Generation Agency, Oregon, C Revenue Bonds (Wauna Cogeneration Pr 7.40% due 1/01/2016
Pennsylvania7.9%	NR*	NR*	750	Blair County, Pennsylvania, IDA, Rev Pennsylvania State Project), Series
	NR*	NR*	1,750	Chester County, Pennsylvania, Health Authority, Senior Living Revenue Ref Pond Inc. Project), 7.625% due 7/01/
	NR*	Ba2	2,000	Lehigh County, Pennsylvania, General Revenue Refunding Bonds (Kidspeace C due 11/01/2023 Montgomery County, Pennsylvania, High Authority, Revenue Refunding Bonds (Project):
	BBB+	NR*	900	6.75% due 11/15/2024
	BBB+ A1+	NR* NR*	925 300	6.75% due 11/15/2030 Pennsylvania State Higher Educationa Revenue Refunding Bonds (Carnegie Me Series C, 1.65% due 11/01/2029 (a) Philadelphia, Pennsylvania, Authorit
	NR* NR*	Bal NR*	1,600 5,500	(Air Cargo), Series A, 7.50% due 1 Commercial Development, 7.75% due
Rhode Island0.5%	ВВВ	Baa2	930	Rhode Island State Health and Educat Hospital Financing Revenue Bonds (Li 6.50% due 8/15/2032
South Carolina	BBB-	NR*	1,000	South Carolina Jobs, EDA, Revenue Bo Convention Center), Series A, 6.625%
Tennessee0.5%	BBB-	Ba1	840	McMinn County, Tennessee, IDB, Solid (Recycling FacilityCalhoun Newspri due 12/01/2022
Texas10.3%	BBB-	Baa3	1,000	Austin, Texas, Convention Center Rev Enterprises Inc.), First Tier, Serie due 1/01/2028 Brazos River Authority, Texas, PCR,
	BBB	Baa2	1,000	(TXU Electric Company Project), Se
	BBB	Baa2	2 , 870	(Utilities Electric Company), Seri
	A	A3	2,500	Brazos River, Texas, Harbor Navigati County Environmental Revenue Refundi Company Project), AMT, Series A-7, 6
	NR*	Baa2	900	Gulf Coast, Texas, IDA, Solid Waste (Citgo Petroleum Corporation Project
	BBB	Baa2	3,335	Gulf Coast, Texas, Waste Disposal Au Refunding Bonds (International Paper 6.10% due 8/01/2024
	A1+	NR*	100	Harris County, Texas, Health Facilit Corporation, Revenue Refunding Bonds VRDN, 1.65% due 12/01/2032 (a)
	A-	Baa1	3,500	Lower Colorado River Authority, Texa Semiconductor), AMT, 6.375% due 4/01
	BBB	Baa2	890	Sabine River Authority, Texas, PCR, Company Project), Series C, 4% due 5
	NR*	Baa3	1,740	Texas State Student Housing Corporat

				Revenue Bonds (MidWestern State Univ due 9/01/2022
Utah1.3%	NR*	NR*	2 , 240	Carbon County, Utah, Solid Waste Dis Bonds (Laidlaw Environmental), AMT, due 7/01/2017
Virginia6.0%	NR*	NR*	2 , 500	Dulles Town Center, Virginia, Commun Special Assessment Tax (Dulles Town due 3/01/2026
	NR*	NR*	3,000	Pittsylvania County, Virginia, IDA, Exempt-Facility, AMT, Series A, 7.50 Pocahontas Parkway Association, Virg Bonds:
	NR*	Ba1	6,200	First Tier, Sub-Series C, 6.25%**
	NR*	Ba1	6,200	First Tier, Sub-Series C, 6.25%**
	ВВ	NR*	32,600	Senior Series B, 5.875%** due 8/15
Washington1.7%	======= NR*	NR*	2,600	Port Seattle, Washington, Special Fa (Northwest Airlines Project), AMT, 7
	A	A1	1,050	Tobacco Settlement Authority, Washin Revenue Bonds, 6.625% due 6/01/2032
Wyoming1.0%	BB+	Ba3	1,800	Sweetwater County, Wyoming, Solid Wa (FMC Corporation Project), AMT, Seri
Virgin Islands1.2%	BBB-	Baa3	2 , 100	Virgin Islands Government Refinery F (Hovensa Coker Project), AMT, 6.50%
	=====		======	Total Municipal Bonds (Cost\$183,77
			Shares	
Ratings			Held	
=======================================	=======			
Common Stock0.0%			181	Horizon Natural Resources (b)(c)

Total Investments (Cost--\$185,769)--98.6%

Other Assets Less Liabilities--1.4%

Net Assets--100.0%

- * Not Rated.
- ** Represents a zero coupon bond; the interest rate shown reflects the effective yield at the time of purchase by the Fund.
- + Highest short-term rating by Moody's Investors Service, Inc.
- (a) The interest rate is subject to change periodically based upon prevailing market rates. The interest rate shown is the rate in effect at December 31, 2002.
- (b) Non-income producing security.
- (c) Represents entitlement received from a bankruptcy exchange for Peninsula Ports, 6.90% due 5/22/2022.

See Notes to Financial Statements.

Total Common Stock (Cost--\$1,995)--0

8 & 9

Apex Municipal Fund, Inc., December 31, 2002

STATEMENT OF ASSETS, LIABILITIES AND CAPITAL

	As of December 31, 2002
Assets:	Investments, at value (identified cost\$185,769,050)
Liabilities:	Payables: Securities purchased Investment adviser Dividends to shareholders Accrued expenses Total liabilities
Net Assets:	Net assets
Capital:	Common Stock, \$.10 par value, 150,000,000 shares authorized; 19,596,732 shares issued and outstanding
See Notes to Fina STATEMENT OF OPERATIONS	ancial Statements.
	For the Six Months Ended December 31, 2002
Investment Income:	Interest Dividends Total income

Expenses:	Investment advisory fees						
	Accounting services						
	Printing and shareholder reports						
	Directors' fees and expenses						
	Listing fees						
	Pricing fees						
	Custodian fees						
	Other	•					
	Total expenses before reimbursement						
	Reimbursement of expenses	•					
	Total expenses after reimbursement						
	Investment incomenet	•					
Realized &	Realized gain on investmentsnet						
Unrealized Gain (Loss) On InvestmentsNet:	Change in unrealized depreciation on investmentsnet						
	Total realized and unrealized loss on investmentsnet						
	Net Decrease in Net Assets Resulting from Operations						
STATEMENTS OF CHANGES I	N NET ASSETS						
	Increase (Decrease) in Net Assets:						
Operations:	Investment incomenet	\$					
	Net increase (decrease) in net assets resulting from operations	_					
Dividends to	Investment incomenet						
Shareholders:		-					
	Net decrease in net assets resulting from dividends to shareholders	_					
Net Assets:	Total decrease in net assets						
	End of period*	\$					
	*Undistributed investment incomenet	==: \$					

See Notes to Financial Statements.

10 & 11

Apex Municipal Fund, Inc., December 31, 2002

FINANCIAL HIGHLIGHTS

	The following per share data and ratios have been derived from information provided in the financial statements.	For the Six Months Ended	For t
	Increase (Decrease) in Net Asset Value:	December 31, 2002	2002
Per Share Operating Performance:	Net asset value, beginning of period		
	Investment incomenet	.30++	.58
	investmentsnet	(.42)	(.22)
	Total from investment operations	(.12)	.36
	Less dividends from investment incomenet \dots	(.28)	(.57)
	Net asset value, end of period		\$ 9.24 \$
	Market price per share, end of period		
Total Investment Return:**	Based on market price per share		(1.64%)
	Based on net asset value per share		4.31%
Ratios to Average Net Assets:	Expenses net of reimbursement		.87%
	Expenses		.87%
	Investment incomenet		
Supplemental Data:	Net assets, end of period (in thousands)	\$ 173,208	\$ 181 , 093 \$
	Portfolio turnover	======= 10% =======	======================================

^{*} Annualized.

^{**} Total investment returns based on market value, which can be significantly greater or lesser than the net asset value, may result in substantially different returns. Total investment returns exclude the effects of sales charges.

⁺ Aggregate total investment return.

++ Based on average shares outstanding.

See Notes to Financial Statements.

NOTES TO FINANCIAL STATEMENTS

1. Significant Accounting Policies:

Apex Municipal Fund, Inc. (the "Fund") is registered under the Investment Company Act of 1940 as a non-diversified, closed-end management investment company. The Fund's financial statements are prepared in conformity with accounting principles generally accepted in the United States of America, which may require the use of management accruals and estimates. These unaudited financial statements reflect all adjustments, which are, in the opinion of management, necessary to a fair statement of the results for the interim period presented. All such adjustments are of a normal, recurring nature. The Fund determines and makes available for publication the net asset value of its Common Stock on a weekly basis. The Fund's Common Stock is listed on the New York Stock Exchange under the symbol APX. The following is a summary of significant accounting policies followed by the Fund.

- (a) Valuation of investments -- Municipal bonds are traded primarily in the over-the-counter markets and are valued at the most recent bid price or yield equivalent as obtained by the Fund's pricing service from dealers that make markets in such securities. Financial futures contracts and options thereon, which are traded on exchanges, are valued at their closing prices as of the close of such exchanges. Options written or purchased are valued at the last sale price in the case of exchange-traded options. In the case of options traded in the over-the-counter market, valuation is the last asked price (options written) or the last bid price (options purchased). Securities with remaining maturities of sixty days or less are valued at amortized cost, which approximates market value. Securities and assets for which market quotations are not readily available are valued at fair value as determined in good faith by or under the direction of the Board of Directors of the Fund, including valuations furnished by a pricing service retained by the Fund, which may utilize a matrix system for valuations. The procedures of the pricing service and its valuations are reviewed by the officers of the Fund under the general supervision of the Board of Directors.
- (b) Derivative financial instruments The Fund may engage in various portfolio investment strategies to increase or decrease the level of risk to which the Fund is exposed more quickly and efficiently than transactions in other types of instruments. Losses may arise due to changes in the value of the contract or if the counterparty does not perform under the contract.
- o Financial futures contracts -- The Fund may purchase or sell financial futures contracts and options on such futures contracts for the purpose of hedging the market risk on existing securities or the intended purchase of securities. Futures contracts are contracts for delayed delivery of securities at a specific future date and at a specific price or yield. Upon entering into a contract, the Fund deposits and maintains as collateral such initial margin as required by the exchange on which the transaction is effected. Pursuant to the contract, the Fund agrees to receive from or pay to the broker an amount of cash equal to the daily fluctuation in value of the contract. Such receipts or payments are known as variation margin and are recorded by the Fund as unrealized gains or losses. When the contract is closed, the Fund records a realized gain or loss equal to the difference between the value of the contract at the time it was opened and the value at the time it was closed.
- o Options -- The Fund is authorized to write covered call options and purchase put options. When the Fund writes an option, an amount equal to the premium received by the Fund is reflected as an asset and an equivalent liability. The

amount of the liability is subsequently marked to market to reflect the current market value of the option written.

When a security is purchased or sold through an exercise of an option, the related premium paid (or received) is added to (or deducted from) the basis of the security acquired or deducted from (or added to) the proceeds of the security sold. When an option expires (or the Fund enters into a closing transaction), the Fund realizes a gain or loss on the option to the extent of the premiums received or paid (or gain or loss to the extent

12 & 13

Apex Municipal Fund, Inc., December 31, 2002

NOTES TO FINANCIAL STATEMENTS (concluded)

the cost of the closing transaction exceeds the premium paid or received).

Written and purchased options are non-income producing investments.

- (c) Income taxes -- It is the Fund's policy to comply with the requirements of the Internal Revenue Code applicable to regulated investment companies and to distribute substantially all of its taxable income to its shareholders. Therefore, no Federal income tax provision is required.
- (d) Security transactions and investment income -- Security transactions are recorded on the dates the transactions are entered into (the trade dates). Realized gains and losses on security transactions are determined on the identified cost basis. Interest income is recognized on the accrual basis.
- (e) Dividends and distributions -- Dividends from net investment income are declared daily and paid monthly. Distributions of capital gains are recorded on the ex-dividend dates.
- 2. Investment Advisory Agreement and Transactions with Affiliates:

The Fund has entered into an Investment Advisory Agreement with Fund Asset Management, L.P. ("FAM"). The general partner of FAM is Princeton Services, Inc. ("PSI"), an indirect, wholly-owned subsidiary of Merrill Lynch & Co., Inc. ("ML & Co."), which is the limited partner.

FAM is responsible for the management of the Fund's portfolio and provides the necessary personnel, facilities, equipment and certain other services necessary to the operations of the Fund. For such services, the Fund pays a monthly fee at an annual rate of .65% of the Fund's average weekly net assets. For the six months ended December 31, 2002, FAM reimbursed the Fund in the amount of \$2.

For the six months ended December 31, 2002, the Fund reimbursed FAM \$1,968 for certain accounting services.

Certain officers and/or directors of the Fund are officers and/or directors of FAM, PSI, Merrill Lynch, Pierce, Fenner & Smith Incorporated, and/or ML & Co.

3. Investments:

Purchases and sales of investments, excluding short-term securities, for the six months ended December 31, 2002 were \$23,663,820 and \$16,492,833, respectively.

Net realized gains for the six months ended December 31, 2002 and net unrealized losses as of December 31, 2002 were as follows:

	 Realized Gains	Unrealized Losses
Long-term investments	\$ 514,167	\$(15,055,601)
Total	\$ 514,167	\$(15,055,601) ======

As of December 31, 2002, net unrealized depreciation for Federal income tax purposes aggregated \$14,926,939, of which \$5,482,944 related to appreciated securities and \$20,409,883 related to depreciated securities. The aggregate cost of investments at December 31, 2002 for Federal income tax purposes was \$185,640,388.

4. Common Stock Transactions:

At December 31, 2002, the Fund had one class of shares of Common Stock, par value \$.10 per share, of which 150,000,000 shares were authorized. Shares issued and outstanding during the six months ended December 31, 2002 and the year ended June 30, 2002 remained constant.

5. Capital Loss Carryforward:

On June 30, 2002, the Fund had a net capital loss carryforward of \$21,453,358, of which \$1,754,099 expires in 2003, \$7,056,648 expires in 2004, \$1,311,769 expires in 2005, \$938,156 expires in 2006, \$2,975,000 expires in 2008, \$5,341,699 expires in 2009 and \$2,075,987 expires in 2010. This amount will be available to offset like amounts of any future taxable gains.

6. Subsequent Event:

On January 7, 2003, the Fund's Board of Directors declared a tax exempt income dividend to Common Stock shareholders in the amount of \$.047000 per share, payable on January 30, 2003 to shareholders of record as of January 16, 2003.

ABOUT INVERSE FLOATERS

As a part of its investment strategy, the Fund may invest in certain securities whose potential income return is inversely related to changes in a floating interest rate ("inverse floaters"). In general, income on inverse floaters will decrease when short-term interest rates increase and increase when short-term interest rates decrease. Investments in inverse floaters may be characterized as derivative securities and may subject the Fund to the risks of reduced or eliminated interest payments and losses of invested principal. In addition, inverse floaters have the effect of providing investment leverage and, as a result, the market value of such securities will generally be more volatile than that of fixed rate, tax-exempt securities. To the extent the Fund invests in inverse securities, the market value of the Fund's portfolio and the net asset value of the Fund's shares may also be more volatile than if the Fund did not invest in these securities.

OFFICERS AND DIRECTORS

Terry K. Glenn, President and Director James H. Bodurtha, Director Joe Grills, Director Herbert I. London, Director Andre F. Perold, Director Roberta Cooper Ramo, Director

Robert S. Salomon, Jr., Director Melvin R. Seiden, Director Stephen B. Swensrud, Director Kenneth A. Jacob, Senior Vice President John M. Loffredo, Senior Vice President Theodore R. Jaeckel Jr., Vice President Donald C. Burke, Vice President and Treasurer Stephen M. Benham, Secretary

Custodian & Transfer Agent

The Bank of New York 100 Church Street New York, NY 10286

NYSE Symbol

APX

Effective January 1, 2003, Melvin R. Seiden, Director of Apex Municipal Fund, Inc., retired. The Fund's Board of Directors wishes Mr. Seiden well in his retirement.

14 & 15

[LOGO] Merrill Lynch Investment Managers

[GRAPHICS OMITTED]

Apex Municipal Fund, Inc. seeks to provide shareholders with high current income exempt from Federal income taxes by investing primarily in a portfolio of medium-to-lower grade or unrated municipal obligations, the interest on which is exempt from Federal income taxes in the opinion of bond counsel to the issuer.

This report, including the financial information herein, is transmitted to shareholders of Apex Municipal Fund, Inc. for their information. It is not a prospectus. Past performance results shown in this report should not be considered a representation of future performance. Statements and other information herein are as dated and are subject to change.

Apex Municipal Fund, Inc. Box 9011 Princeton, NJ 08543-9011

[RECYCLED LOGO] Printed on post-consumer recycled paper

#10955--12/02

Item 2 - Did registrant adopt a code of ethics, as of the end of the period covered by this report, that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, regardless of whether these individuals are employed by the registrant

> or a third party? If not, why not? Briefly describe any amendments or waivers that occurred during the period. State here if code of ethics/amendments/waivers are on website and give website address-. State here if fund will send code of ethics to shareholders without

> > 17

charge upon request-- N/A (not answered until July 15, 2003 and only annually for funds)

Item 3 - Did the registrant's board of directors determine that the registrant either: (i) has at least one audit committee financial expert serving on its audit committee; or (ii) does not have an audit committee financial expert serving on its audit committee? If yes, disclose name of financial expert and whether he/she is "independent," (fund may, but is not required, to disclose name/independence of more than one financial expert). If no, explain why not. -N/A (not answered until July 15, 2003 and only annually for funds)

Item 4 - Disclose annually only (not answered until December 15, 2003)

- (a) Audit Fees Disclose aggregate fees billed for each of the last two fiscal years for professional services rendered by the principal accountant for the audit of the registrant's annual financial statements or services that are normally provided by the accountant in connection with statutory and regulatory filings or engagements for those fiscal years. N/A.
- (b) Audit-Related Fees Disclose aggregate fees billed in each of the last two fiscal years for assurance and related services by the principal accountant that are reasonably related to the performance of the audit of the registrant's financial statements and are not reported under paragraph (a) of this Item. Registrants shall describe the nature of the services comprising the fees disclosed under this category. N/A.
- (c) Tax Fees Disclose aggregate fees billed in each of the last two fiscal years for professional services rendered by the principal accountant for tax compliance, tax advice, and tax planning. Registrants shall describe the nature of the services comprising the fees disclosed under this category. N/A.
- (d) All Other Fees Disclose aggregate fees billed in each of the last two fiscal years for products and services provided by the principal accountant, other than the services reported in paragraphs (a) through (c) of this Item. Registrants shall describe the nature of the services comprising the fees disclosed under this category. N/A.
 - (e) (1) Disclose the audit committee's pre-approval policies and procedures described in paragraph (c) (7) of Rule 2-01 of Regulation S-X. N/A.
 - (e) (2) Disclose the percentage of services described in each of paragraphs (b) through (d) of this Item that were approved by the audit committee pursuant to paragraph (c) (7) (i) (C) of Rule 2-01 of Regulation S-X. N/A.
- (f) If greater than 50%, disclose the percentage of hours expended on the principal accountant's engagement to audit the registrant's financial statements for the most recent fiscal year that were attributed to work performed by persons other than the principal accountant's full-time, permanent employees. N/A.

- (g) Disclose the aggregate non-audit fees billed by the registrant's accountant for services rendered to the registrant, and rendered to the registrant's investment adviser (not including any sub-adviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the adviser that provides ongoing services to the registrant for each of the last two fiscal years of the registrant. N/A.
- (h) Disclose whether the registrant's audit committee has considered whether the provision of non-audit services that were rendered to the registrant's investment adviser (not including any subadviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the registrant that were not pre-approved pursuant to paragraph (c) (7) (ii) of Rule 2-01 of Regulation S-X is compatible with maintaining the principal accountant's independence. N/A.

Items 5-6 - Reserved

Item 7 - For closed-end funds that contain voting securities in their portfolio, describe the policies and procedures that it uses to determine how to vote proxies relating to those portfolio securities. N/A.

Item 8 -- Reserved

- Item 9(a) Disclose the conclusions of the registrant's principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, about the effectiveness of the registrant's disclosure controls and procedures (as defined in Rule 30a-2(c) under the Act (17 CFR 270.30a-2(c))) based on their evaluation of these controls and procedures as of a date within 90 days of the filing date of the report that includes the disclosure required by this paragraph. N/A.
- Item 9(b) -- There were no significant changes in the registrant's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Item 10 - Exhibits

- 10(a) Attach code of ethics or amendments/waivers, unless code of ethics or amendments/waivers is on website or offered to shareholders upon request without charge. N/A.
- 10(b) Attach certifications (4 in total pursuant to Sections 302 and 906 for CEO/CFO). Attached hereto.