BLACKROCK APEX MUNICIPAL FUND INC

Form N-Q November 29, 2006

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

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act File number 811-5227

Name of Fund: BlackRock Apex Municipal Fund, Inc.

Fund Address: P.O. Box 9011

Princeton, NJ 08543-9011

Name and address of agent for service: Robert C. Doll, Jr., Chief Executive Officer, BlackRock 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: 06/30/2007

Date of reporting period: 07/01/06 - 09/30/06

Item 1 - Schedule of Investments

BlackRock Apex Municipal Fund, Inc. Schedule of Investments as of September 30, 2006

Face

(in Thousands)

	race	
State	Amount	Municipal Bonds
Alabama - 1.1%	\$ 1,000	Brewton, Alabama, IDB, PCR, Refunding (Container Corporation of Am Smurfit Corp. Project), 8% due 4/01/2009
	1,255	Tuscaloosa, Alabama, Special Care Facilities Financing Authority, Facility Revenue Bonds (Capstone Village, Inc. Project), Series A,
Alaska - 1.1%	2,000	Alaska Industrial Development and Expert Authority Revenue Bonds (Cargoport), AMT, 8% due 5/01/2023
Arizona - 3.3%	900	Maricopa County, Arizona, IDA, Education Revenue Bonds (Arizona Ch
		Project 1), Series A, 6.625% due 7/01/2020
	70	Maricopa County, Arizona, IDA, M/F Housing Revenue Bonds (Sun King Series A, 5.875% due 11/01/2008
	20	Maricopa County, Arizona, IDA, M/F Housing Revenue Bonds (Sun King Series A, 6% due 11/01/2010
	1,020	Maricopa County, Arizona, IDA, M/F Housing Revenue Bonds (Sun King
	2,950	Series A, 6.75% due 5/01/2031 Phoenix, Arizona, IDA, Airport Facility, Revenue Refunding Bonds (Inc. Project), AMT, 6.30% due 4/01/2023

	·	Pima County, Arizona, IDA, Education Revenue Bonds (Arizona Charte Series E, 7.25% due 7/01/2031 Yavapai County, Arizona, IDA, Hospital Facility Revenue Bonds (Yav Center), Series A, 6% due 8/01/2033
California - 2.2%	1,300	California State, GO, 5% due 2/01/2033 California State, Various Purpose, GO, 5.25% due 11/01/2025 Fontana, California, Special Tax, Refunding (Community Facilities Sierra), 6% due 9/01/2034
Colorado - 5.3%	2,800	Denver, Colorado, Urban Renewal Authority, Tax Increment Revenue B AMT, 7.75% due 9/01/2016 Elk Valley, Colorado, Public Improvement Revenue Bonds (Public Imp Series A, 7.30% due 9/01/2022 North Range, Colorado, Metropolitan District Number 1, GO, 7.25% d Plaza Metropolitan District Number 1, Colorado, Tax Allocation Rev Improvement Fees), 8% due 12/01/2025

Portfolio Abbreviations

To simplify the listings of BlackRock 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

BlackRock Apex Municipal Fund, Inc. Schedule of Investments as of September 30, 2006

(in Thousands)

State	Face ount 	Municipal Bonds
	\$ 500 830	Plaza Metropolitan District Number 1, Colorado, Tax Allocation Rev Improvement Fees), 8.125% due 12/01/2025 Southlands, Colorado, Medical District, GO (Metropolitan District due 12/01/2034
Connecticut - 0.3%	490	Connecticut State Development Authority, Airport Facility Revenue Project), AMT, 7.95% due 4/01/2026
Florida - 8.3%	 750	Arbor Greene Community Development District, Florida, Special Asse 7.60% due 11/01/2006 (a)
	800	Capital Projects Finance Authority, Florida, Continuing Care Retir (Glenridge on Palmer Ranch), Series A, 8% due 6/01/2032
	840	Halifax Hospital Medical Center, Florida, Hospital Revenue Refundi 5% due 6/01/2038
	850	Highlands County, Florida, Health Facilities Authority, Hospital R

	2,500	(Adventist Health System), Series C, 5.25% due 11/15/2036 Hillsborough County, Florida, IDA, Exempt Facilities Revenue Bonds
		Company), AMT, Series A, 7.125% due 4/01/2030
	765	Lakewood Ranch, Florida, Community Development District Number 5, Revenue Refunding Bonds, Series A, 6.70% due 5/01/2031
	1,500	Midtown Miami, Florida, Community Development District, Special As Bonds, Series A, 6% due 5/01/2024
	1,350	Midtown Miami, Florida, Community Development District, Special As Bonds, Series A, 6.25% due 5/01/2037
	1,555	Orlando, Florida, Urban Community Development District, Capital Im Assessment Bonds, Series A, 6.95% due 5/01/2033
	2,140	Santa Rosa Bay Bridge Authority, Florida, Revenue Bonds, 6.25% due
	2,515	Tampa Palms, Florida, Open Space and Transportation Community Deve Revenue Bonds, Capital Improvement (Richmond Place Project), 7.50%
Georgia - 3.8%	2,000 410	Atlanta, Georgia, Tax Allocation Bonds (Atlantic Station Project), Atlanta, Georgia, Tax Allocation Bonds (Eastside Project), Series
	410	due 1/01/2020
	495	Atlanta, Georgia, Tax Allocation Bonds (Princeton Lakes Project),
	830	Brunswick and Glynn County, Georgia, Development Authority, First Bonds (Coastal Community Retirement Corporation Project), Series A
	1,185	Brunswick and Glynn County, Georgia, Development Authority, First Bonds (Coastal Community Retirement Corporation Project), Series A
	1,580	Fulton County, Georgia, Development Authority, PCR (General Motors Refunding, VRDN, 8% due 4/01/2010 (d)
	830	Savannah, Georgia, EDA, Revenue Bonds (Marshes of Skidaway), First 7.40% due 1/01/2034

BlackRock Apex Municipal Fund, Inc. Schedule of Investments as of September 30, 2006

Face

(in Thousands)

State	Amount	Municipal Bonds
Idaho - 0.8%	\$ 1,470	Idaho Health Facilities Authority, Revenue Refunding Bonds (Valley Corporation), Series A, 7.75% due 11/15/2016
Illinois - 7.9%	1,845	Caseyville, Illinois, Senior Tax Increment Revenue Bonds (Forest L 7% due 12/30/2022
	3,000	Chicago, Illinois, O'Hare International Airport, Special Facility Bonds (American Airlines Inc. Project), 8.20% due 12/01/2024
	585	Illinois Development Finance Authority Revenue Bonds (Primary Heal Facilities Acquisition Program), 7.75% due 12/01/2006 (a)
	2,605	Illinois Development Finance Authority Revenue Bonds (Primary Heal Facilities Acquisition Program), 7.75% due 12/01/2016
	2,050	Illinois State Finance Authority Revenue Bonds (Clare At Water Tow Series A, 6.125% due 5/15/2038
	430	Illinois State Finance Authority Revenue Bonds (Landing At Plymout Series A, 6% due 5/15/2037

6.60% due 7/01/2024

Project), 6.25% due 3/01/2034

490 Illinois State Finance Authority Revenue Bonds (Primary Health Car

755 Lincolnshire, Illinois, Special Service Area Number 1, Special Tax

2,400 Lombard, Illinois, Public Facilities Corporation, First Tier Reven

Center and Hotel), Series A-1, 7.125% due 1/01/2036

		Naperville, Illinois, IDR (General Motors Corporation), Refunding, 12/01/2012 (d) Village of Wheeling, Illinois, Revenue Bonds (North Milwaukee/Lake Financing (TIF) Redevelopment Project), 6% due 1/01/2025
Indiana - 0.9%	840	Delaware County, Indiana, Hospital Authority, Hospital Revenue Bon System Obligated Group), 5.25% due 8/01/2036 Vanderburgh County, Indiana, Redevelopment Commission, Redevelopme Allocation Bonds, 5.25% due 2/01/2031
Iowa - 1.7%	2,720	Iowa Finance Authority, Health Care Facilities, Revenue Refunding Initiatives Project), 9.25% due 7/01/2011 (a)
Kansas - 0.6%	1,230	Wyandotte County, Kansas, Kansas City Unified Government Revenue R (General Motors Corporation Project), 6% due 6/01/2025
Louisiana - 0.7%	1,300	Louisiana Public Facilities Authority, Hospital Revenue Bonds (Fra of Our Lady Health System, Inc.), Series A, 5.25% due 8/15/2036
Maine - 0.4%	840	Maine Finance Authority, Solid Waste Recycling Facilities Revenue Paper Project-Bowater), AMT, 7.75% due 10/01/2022
Maryland - 1.0%	385	Baltimore, Maryland, Convention Center Hotel Revenue Bonds, Sub-Se due 9/01/2039

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(in Thousands)

State	Face Amount	Municipal Bonds
	\$ 1,500	Maryland State Energy Financing Administration, Limited Obligation (Cogeneration-AES Warrior Run), AMT, 7.40% due 9/01/2019
Massachusetts - 4.1%	1,845	Massachusetts State Development Finance Agency, First Mortgage Rev Communities Inc.), Series A, 6.25% due 7/01/2034
	1,245	Massachusetts State Development Finance Agency, Revenue Refunding Nazarene College), 5.625% due 4/01/2019
	1,220	Massachusetts State Development Finance Agency, Revenue Refunding Nazarene College), 5.625% due 4/01/2029
	850	Massachusetts State Health and Educational Facilities Authority Re Hospital), Series E, 6.75% due 10/01/2033
	1,350	Massachusetts State Health and Educational Facilities Authority, R Bonds (Bay Cove Human Services Issue), Series A, 5.90% due 4/01/20
	500	Massachusetts State Health and Educational Facilities Authority, R Bonds (Milton Hospital), Series, 5.50% due 7/01/2016
	1,000	Massachusetts State Industrial Finance Agency Revenue Bonds, Sewer Control Composting), AMT, 9.25% due 6/01/2010
Michigan - 1.3%	1,150	Macomb County, Michigan, Hospital Finance Authority, Hospital Reve
	1,260	Clemens General Hospital), Series B, 5.875% due 11/15/2034 Monroe County, Michigan, Hospital Financing Authority, Hospital Re (Mercy Memorial Hospital Corporation), 5.50% due 6/01/2035
Minnesota - 0.7%	1,230	Saint Paul, Minnesota, Port Authority, Hotel Facility, Revenue Ref (Radisson Kellogg Project), Series 2, 7.375% due 8/01/2008 (a)

Missouri - 1.2%	1,155 1,000	Fenton, Missouri, Tax Increment Revenue Refunding and Improvement Bluffs), 7% due 10/01/2011 (a) Kansas City, Missouri, IDA, First Mortgage Health Facilities Reven Spencer Place), Series A, 6.50% due 1/01/2035
Nevada - 0.2%	430	Clark County, Nevada, Improvement District Number 142, Special Ass due 8/01/2023
New Hampshire - 0.4%	835	New Hampshire Health and Education Facilities Authority, Hospital (Catholic Medical Center), 5% due 7/01/2036
New Jersey - 12.8%	6,000 2,170 1,500 1,000	Camden County, New Jersey, Pollution Control Financing Authority, Recovery, Revenue Refunding Bonds, AMT, Series A, 7.50% due 12/01/New Jersey EDA, Cigarette Tax Revenue Bonds, 5.50% due 6/15/2024 New Jersey EDA, IDR, Refunding (Newark Airport Marriott Hotel), 7% New Jersey EDA, Retirement Community Revenue Bonds (Cedar Crest Vi Series A, 7.25% due 11/15/2031

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State	Face Amount	Municipal Bonds
	\$ 3,700	New Jersey EDA, Retirement Community Revenue Bonds (Seabrook Villa 8.125% due 11/15/2023
	3,050	New Jersey EDA, Special Facility Revenue Bonds (Continental Airlin AMT, 6.625% due 9/15/2012
	1,750	New Jersey EDA, Special Facility Revenue Bonds (Continental Airlin AMT, 6.25% due 9/15/2029
	1,870	New Jersey Health Care Facilities Financing Authority Revenue Bond Hospital Association), 6.625% due 7/01/2036
	2,760	New Jersey State Transportation Trust Fund Authority, Transportation Bonds, Series C, 5.05% due 12/15/2035 (b) (e)
	1,245	Tobacco Settlement Financing Corporation of New Jersey, Asset-Back 5.75% due 6/01/2032
	1,075	Tobacco Settlement Financing Corporation of New Jersey, Asset-Back 7% due $6/01/2041$
New Mexico - 2.6%	5,000	Farmington, New Mexico, PCR, Refunding (Tucson Electric Power Comp Project), Series A, 6.95% due 10/01/2020
New York - 6.1%	1,000	Dutchess County, New York, IDA, Civic Facility Revenue Bonds (Sain Series B, 7.50% due 3/01/2029
	1,890	Erie County, New York, IDA, Revenue Bonds (Orchard Park CCRC, Inc. 6% due 11/15/2036
	350	

830 New York City, New York, City IDA, Civic Facility Revenue Bonds (S

630 New York Liberty Development Corporation Revenue Bonds (National S

1,730 New York City, New York, City IDA, Special Facility Revenue Bonds

2,080 New York State Dormitory Authority, Non-State Supported Debt, Reve

Pooled Program), Series C-1, 6.50% due 7/01/2024

Project), AMT, 7.625% due 12/01/2032

Project), Series A, 6.125% due 2/15/2019

	·	Sinai-NYU Medical Center Health System), 5.50% due 7/01/2026 New York State Dormitory Authority, Non-State Supported Debt, Reve (Mount Sinai Hospital), Series C, 5.50% due 7/01/2026 Westchester County, New York, IDA, Continuing Care Retirement, Mor (Kendal on Hudson Project), Series A, 6.50% due 1/01/2034
North Carolina - 0.5%	1,000	North Carolina Medical Care Commission, Retirement Facilities, Fir Bonds (Givens Estates Project), Series A, 6.50% due 7/01/2032
Oregon - 0.7%	1,310	Western Generation Agency, Oregon, Cogeneration Project Revenue Bo Cogeneration Project), AMT, Series B, 7.40% due 1/01/2016

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State	Face Amount	Municipal Bonds
Pennsylvania - 6.8%	1,160 1,750 900 925 1,700 1,600	Allegheny County, Pennsylvania, IDA, Lease Revenue Refunding Bonds Resources Inc. Project), 5.125% due 9/01/2031 Bucks County, Pennsylvania, IDA, Retirement Community Revenue Bond Inc.), Series A, 6.125% due 1/01/2025 Chester County, Pennsylvania, Health and Education Facilities Auth Revenue Refunding Bonds (Jenners Pond Inc. Project), 7.625% due 7/Montgomery County, Pennsylvania, Higher Education and Health Autho (Faulkeways at Gwynedd Project), 6.75% due 11/15/2009 (a) Montgomery County, Pennsylvania, Higher Education and Health Autho (Faulkeways at Gwynedd Project), 6.75% due 11/15/2009 (a) Montgomery County, Pennsylvania, IDA, Revenue Bonds (Whitemarsh Co Project), 6.25% due 2/01/2035 Philadelphia, Pennsylvania, Authority for IDR (Air Cargo), AMT, Se due 1/01/2025 Philadelphia, Pennsylvania, Authority for IDR, Commercial Developm due 12/01/2017
Rhode Island - 1.0%	1,750	Central Falls, Rhode Island, Detention Facility Corporation, Dete Revenue Refunding Bonds, 7.25% due 7/15/2035
South Carolina - 4.1%	1,075	Connector 2000 Association, Inc., South Carolina, Toll Road and Ca Revenue Bonds, Senior-Series B, 6.50% due 1/01/2009 (e) Connector 2000 Association, Inc., South Carolina, Toll Road and Ca Revenue Bonds, Senior-Series B, 7.969% due 1/01/2014 (e) Myrtle Beach, South Carolina, Tax Increment Revenue Bonds (Myrtle Base), Series A, 5.30% due 11/01/2035 South Carolina Housing Finance and Development Authority, Mortgage Bonds, AMT, Series A-2, 5.15% due 7/01/2037 (b)
Tennessee - 1.1%	245 1,800	Shelby County, Tennessee, Health, Educational and Housing Facilit Bonds (Germantown Village), 6.25% due 12/01/2034 Shelby County, Tennessee, Health, Educational and Housing Facilit Bonds (Germantown Village), Series A, 7.25% due 12/01/2034
Texas - 7.5%		Austin, Texas, Convention Center Revenue Bonds (Convention Enterpr Tier, Series A, 6.70% due 1/01/2028 Brazos River Authority, Texas, PCR, Refunding (Texas Utility Compa

7.70% due 4/01/2033

- 1,220 Brazos River Authority, Texas, Revenue Refunding Bonds (Reliant En Series B, 7.75% due 12/01/2018
- 2,275 Dallas-Fort Worth, Texas, International Airport Facilities Improve Revenue Bonds (American Airlines, Inc.), AMT, 7.25% due 11/01/2030
 - 830 Grand Prairie, Texas, Housing Finance Corporation Revenue Bonds (I Living Center), 7.75% due 1/01/2034

BlackRock Apex Municipal Fund, Inc. Schedule of Investments as of September 30, 2006 (in Thousands)

	Face	
State	Amount	Municipal Bonds
	1,000	HFDC of Central Texas, Inc., Retirement Facilities Revenue Bonds, due 11/01/2026 Houston, Texas, Health Facilities Development Corporation, Retirements (Buckingham Senior Living Community), Series A, 7.125% due 2 Kerrville, Texas, Health Facilities Development Corporation, Hospi (Sid Peterson Memorial Hospital Project), 5.375% due 8/15/2035 Matagorda County, Texas, Navigation District Number 1, Revenue Ref (Reliant Energy Inc.), Series C, 8% due 5/01/2029 Port Corpus Christi, Texas, Individual Development Corporation, Er Facilities Revenue Bonds (Citgo Petroleum Corporation Project), AM due 11/01/2031
Utah - 1.2%	2,240	Carbon County, Utah, Solid Waste Disposal, Revenue Refunding Bonds Environmental), AMT, Series A, 7.45% due 7/01/2017
Virginia - 1.8%	310	Dulles Town Center, Virginia, Community Development Authority, Spe (Dulles Town Center Project), 6.25% due 3/01/2026 Farms of New Kent, Virginia, Community Development Authority, Spe Bonds, Series C, 5.80% due 3/01/2036 Suffolk, Virginia, IDA, Retirement Facilities, Revenue Refunding E Center), 5.15% due 9/01/2024
West Virginia - 0.6%	1,125	Princeton, West Virginia, Hospital Revenue Refunding Bonds (Commur Association Inc. Project), 6.20% due 5/01/2013
Wisconsin - 0.7%	1,320	Wisconsin State Health and Educational Facilities Authority Revenu Place Project), Series A, 7% due 12/01/2031
Puerto Rico - 1.6%		Puerto Rico Commonwealth Infrastructure Financing Authority, Speci Series B, 5% due 7/01/2041 Puerto Rico Commonwealth, Public Improvement, GO, Series A, 5.25%
U.S. Virgin Islands - 1.2%	2,100	Virgin Islands Government Refinery Facilities, Revenue Refunding F Project), AMT, 6.50% due 7/01/2021
		Total Municipal Bonds (Cost - \$180,461) - 97.6%
	Shares	

Held Short-Term Securities

3,400 Merrill Lynch Institutional Tax-Exempt Fund, 3.54% (c)(f) ______

Total Short-Term Securities (Cost - \$3,400) - 1.7%

Total Investments (Cost - \$183,861*) - 99.3%

Other Assets Less Liabilities - 0.7%

Net Assets - 100.0%

BlackRock Apex Municipal Fund, Inc. Schedule of Investments as of September 30, 2006 (in Thousands)

The cost and unrealized appreciation (depreciation) of investments as of September 30, 2006, as computed for federal income tax purposes, were as follows:

	==	======
Net unrealized appreciation	\$	13,534
Gross unrealized depreciation		(33)
Gross unrealized appreciation	\$	13,567
	==	
Aggregate cost	\$	183,880

- (a) Prerefunded.
- (b) AMBAC Insured.
- Investments in companies considered to be an affiliate of the Fund, for (C) purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

	Net	Dividend
Affiliate	Activity	Income
Merrill Lynch Institutional Tax-Exempt Fund	\$ 2,299	\$24

- (d) Security may have a maturity of more than one year at time of issuance, but has variable rate and demand features that qualify it as a short-term security. The rate disclosed is that currently in effect. This rate changes periodically based upon prevailing market rates.
- Represents a zero coupon bond; the interest rate shown reflects the effective yield at the time of purchase.
- Represents the current yield as of September 30, 2006.

Item 2 - Controls and Procedures

2(a) - The registrant's certifying officers have reasonably designed such disclosure controls and procedures to ensure material information relating to the registrant is made known to us by others particularly during the period in which this report is being prepared. The registrant's certifying officers have determined that the registrant's disclosure controls and procedures are effective based on our evaluation of these controls and procedures as of a date within 90 days prior to the

filing date of this report.

2(b) - There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the Act (17 CFR 270.30a-3(d)) that occurred during the last fiscal quarter of the period covered by this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 - Exhibits

Certifications - Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BlackRock Apex Municipal Fund, Inc.

By: /s/ Robert C. Doll, Jr.

Robert C. Doll, Jr. Chief Executive Officer BlackRock Apex Municipal Fund, Inc.

Date: November 17, 2006

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Robert C. Doll, Jr.

Robert C. Doll, Jr. Chief Executive Officer BlackRock Apex Municipal Fund, Inc.

Date: November 17, 2006

By: /s/ Donald C. Burke

Donald C. Burke

Chief Financial Officer

BlackRock Apex Municipal Fund, Inc.

Date: November 17, 2006