

BLACKROCK MUNIYIELD NEW JERSEY FUND INC
Form N-Q
December 23, 2009

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 811-06570

Name of Fund: BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock
MuniYield New Jersey Fund, Inc., 55 East 52nd Street, New York, NY 10055.

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 07/31/2010

Date of reporting period: 10/31/2009

Item 1 Schedule of Investments

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|---|---|---|--------------|
| | | Par (000) | Value |
| New Jersey - 135.4% | Municipal Bonds | | |
| Corporate - 2.9% | Gloucester County Improvement Authority, Refunding RB, Waste Management Inc. Project, Series A, 6.85%, 12/01/29 | \$ 2,000 | \$ 2,011,800 |
| | Gloucester County Improvement Authority, Refunding RB, Waste Management Inc. Project, Series B, AMT, 7.00%, 12/01/29 | 1,180 | 1,183,280 |
| | New Jersey EDA, Refunding RB, New Jersey American Water Co., Series A, AMT, 5.70%, 10/01/39 | 2,925 | 2,860,357 |
| | | | 6,055,437 |
| County/City/Special District/School District - 19.7% | Burlington County Bridge Commission, RB, Governmental Leasing Program, 5.25%, 8/15/12 (a) | 1,000 | 1,115,530 |
| | City of Perth Amboy New Jersey, GO, CAB (FSA), 5.55%, 7/01/33 (b) | 1,575 | 1,393,056 |
| | City of Perth Amboy New Jersey, GO, CAB (FSA), 5.54%, 7/01/34 (b) | 1,925 | 1,697,869 |
| | County of Hudson New Jersey, COP, Refunding (MBIA), 6.25%, 12/01/16 | 1,500 | 1,695,345 |
| | Essex County Improvement Authority, Refunding RB, County Guaranteed, Project Consolidation (MBIA), 5.50%, 10/01/29 | 5,085 | 5,670,487 |
| | Hudson County Improvement Authority, RB, County, Guaranteed, Harrison Parking Facilities Project, Series C (AGC), 5.38%, 1/01/44 | 4,800 | 5,064,384 |
| | Hudson County Improvement Authority, Refunding RB, Hudson County Lease Project (MBIA), 5.38%, 10/01/24 | 4,500 | 4,525,200 |
| | Middlesex County Improvement Authority, RB, Senior, Heldrich Center Hotel, Series A, 5.00%, 1/01/20 | 655 | 325,188 |
| | Middlesex County Improvement Authority, Refunding RB, County Guaranteed, Golf Course Projects, 5.25%, 6/01/22 | 1,455 | 1,598,187 |
| | Monmouth County Improvement Authority, RB, Governmental Loan (AMBAC), 5.00%, 12/01/11(a) | 2,085 | 2,267,417 |
| | Monmouth County Improvement Authority, RB, Governmental Loan (AMBAC), 5.00%, 12/01/15 | 1,215 | 1,250,903 |
| | Monmouth County Improvement Authority, RB, Governmental Loan (AMBAC), 5.00%, 12/01/16 | 1,280 | 1,312,064 |
| | Morristown Parking Authority, RB, Guaranteed (MBIA), 4.50%, 8/01/37 | 585 | 562,542 |
| | Newark Housing Authority, Refunding RB, Additional, Newark Redevelopment Project (MBIA), 4.38%, 1/01/37 | 2,875 | 2,664,924 |
| | Salem County Improvement Authority, RB, Finlaw State Office | | |

Building (FSA), 5.38%, 8/15/28

500

539,700

Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedule of Investments, the names and descriptions of many of the securities have been abbreviated according to the following list.

| | | | |
|--------------|---|-------------|---|
| AGC | Assured Guaranty Corp. | FSA | Financial Security Assurance Inc. |
| AMBAC | American Municipal Bond Assurance Corp. | GO | General Obligations Bonds |
| AMT | Alternative Minimum Tax (subject to) | MBIA | Municipal Bond Investors Assurance (National Public |
| CAB | Capital Appreciation Bonds | | Finance Guaranty Corp.) |
| COP | Certificates of Participation | | |
| EDA | Economic Development Authority | RB | Revenue Bonds |
| FGIC | Financial Guaranty Insurance Co. | S/F | Single-Family |

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|--|--------------|---|--|
| | Par (000) | Value | |
| Municipal Bonds | | | |
| Salem County Improvement Authority, RB, Finlaw State Office Building (FSA), 5.25%, 8/15/38 | \$ 500 | \$ 520,380 | |
| South Jersey Port Corp., Refunding RB, 4.75%, 1/01/18 | 4,280 | 4,442,897 | |
| South Jersey Port Corp., Refunding RB, 4.85%, 1/01/19 | 2,485 | 2,575,628 | |
| South Jersey Port Corp., Refunding RB, 5.00%, 1/01/20 | 2,000 | 2,070,320 | |
| | | 41,292,021 | |
| Education - 15.2% | | | |
| New Jersey Educational Facilities Authority, RB, Georgian Court College Project, Series C, 6.50%, 7/01/13 (a) | 2,000 | 2,354,100 | |
| New Jersey Educational Facilities Authority, RB, Montclair State University, Series J, 5.25%, 7/01/38 | 1,140 | 1,161,375 | |
| New Jersey Educational Facilities Authority, RB, Montclair State University, Series L (MBIA), 5.00%, 7/01/14 (a) | 5,305 | 6,054,225 | |
| New Jersey Educational Facilities Authority, RB, Rider University (Radian), 5.00%, 7/01/17 | 1,000 | 1,015,900 | |
| New Jersey Educational Facilities Authority, RB, Rider University, Series A (Radian), 5.50%, 7/01/23 | 1,255 | 1,264,136 | |
| New Jersey Educational Facilities Authority, RB, Rider University, Series A (Radian), 5.25%, 7/01/34 | 1,450 | 1,309,060 | |
| New Jersey Educational Facilities Authority, RB, Rider University, Series C (Radian), 5.00%, 7/01/37 | 1,750 | 1,605,327 | |
| New Jersey Educational Facilities Authority, Refunding RB, College of New Jersey, Series D (FSA), 5.00%, 7/01/35 | 6,115 | 6,283,468 | |
| New Jersey Educational Facilities Authority, Refunding RB, Ramapo College, Series I (AMBAC), 4.25%, 7/01/31 | 750 | 686,348 | |
| New Jersey Educational Facilities Authority, Refunding RB, Ramapo College, Series I (AMBAC), 4.25%, 7/01/36 | 810 | 721,329 | |
| New Jersey Educational Facilities Authority, Refunding RB, Rowan University, Series B (AGC), 5.00%, 7/01/24 | 1,800 | 1,938,870 | |
| New Jersey Educational Facilities Authority, Refunding RB, Series D, Georgian Court University, 5.25%, 7/01/37 | 1,000 | 937,640 | |
| New Jersey Educational Facilities Authority, Refunding RB, University Medical & Dentistry, Series B, 7.13%, 12/01/23 | 1,300 | 1,463,943 | |
| New Jersey Educational Facilities Authority, Refunding RB, University Medical & Dentistry, Series B, 7.50%, 12/01/32 | 1,625 | 1,829,669 | |
| New Jersey State Higher Education Assistance Authority, RB, Series A, AMT (AMBAC), 5.30%, 6/01/17 | 3,170 | 3,186,611 | |

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| | | | |
|-----------------------|--|-------|------------|
| | | | 31,812,001 |
| Health - 19.4% | New Jersey EDA, RB, CAB, Saint Barnabas, Series A (MBIA), 6.25%, 7/01/24 (c) | 3,850 | 1,393,315 |
| | New Jersey EDA, RB, Masonic Charity Foundation NJ, 5.25%, 6/01/24 | 1,425 | 1,451,847 |
| | New Jersey EDA, RB, Masonic Charity Foundation NJ, 5.25%, 6/01/32 | 685 | 673,403 |
| | New Jersey EDA, Refunding RB, First Mortgage, Winchester, Series A, 5.75%, 11/01/24 | 2,500 | 2,467,900 |

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|--|--|---|------------|
| | | Par (000) | Value |
| | Municipal Bonds | | |
| Winchester, | New Jersey EDA, Refunding RB, First Mortgage, | | |
| | Series A, 5.80%, 11/01/31 | \$ 1,000 | \$ 973,360 |
| Authority, RB, Atlantic | New Jersey Health Care Facilities Financing | | |
| (a) | City Medical, 5.75%, 7/01/12 | 1,060 | 1,178,020 |
| Authority, RB, Atlantic | New Jersey Health Care Facilities Financing | | |
| (a) | City Medical, 6.25%, 7/01/12 | 500 | 562,185 |
| Authority, RB, Atlantic | New Jersey Health Care Facilities Financing | | |
| 7/01/17 | City Medical, 6.25%, | 520 | 547,560 |
| Authority, RB, Atlantic | New Jersey Health Care Facilities Financing | | |
| 7/01/25 | City Medical, 5.75%, | 520 | 532,069 |
| 5.90%, 7/01/30 (c) | New Jersey Health Care Facilities Financing Authority, RB, CAB, Saint Barnabas Health, Series B, | 2,000 | 378,360 |
| 5.69%, 7/01/36 (c) | New Jersey Health Care Facilities Financing Authority, RB, CAB, Saint Barnabas Health, Series B, | 500 | 55,995 |
| 5.17%, 7/01/37 (c) | New Jersey Health Care Facilities Financing Authority, RB, CAB, Saint Barnabas Health, Series B, | 13,250 | 1,363,292 |
| Authority, RB, Capital | New Jersey Health Care Facilities Financing | | |
| 7/01/13 (a) | Health System Obligation Group, Series A, 5.75%, | 1,650 | 1,873,459 |
| A, 5.50%, 7/01/36 | New Jersey Health Care Facilities Financing Authority, RB, Children's Specialized Hospital, Series | 1,540 | 1,451,696 |
| Authority, RB, Health | New Jersey Health Care Facilities Financing | | |
| 11/15/12 (a) | System, Catholic Health East, Series A, 5.38%, | 1,100 | 1,237,115 |

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| | | | |
|------------------------|---|-------|-----------|
| 10/01/38 | New Jersey Health Care Facilities Financing Authority, RB, Hospital Asset Transformation Program, Series A, 5.25%, | 1,000 | 1,013,460 |
| 5.13%, 7/01/35 | New Jersey Health Care Facilities Financing Authority, RB, Hunterdon Medical Center, Series A, | 1,950 | 1,819,486 |
| 5.00%, 7/01/38 | New Jersey Health Care Facilities Financing Authority, RB, Meridian Health, Series I (AGC), | 1,000 | 989,410 |
| 7/01/19 | New Jersey Health Care Facilities Financing Authority, RB, Meridian Health System Obligation Group (FSA), 5.25%, | 1,500 | 1,505,370 |
| 7/01/24 | New Jersey Health Care Facilities Financing Authority, RB, Meridian Health System Obligation Group (FSA), 5.38%, | 2,250 | 2,256,637 |
| 7/01/29 | New Jersey Health Care Facilities Financing Authority, RB, Meridian Health System Obligation Group (FSA), 5.25%, | 2,195 | 2,196,558 |
| Authority, RB, Pascack | New Jersey Health Care Facilities Financing Valley Hospital Association, 6.63%, 7/01/36 (d)(e) | 1,845 | 185 |
| Authority, RB, Robert | New Jersey Health Care Facilities Financing Wood University (AMBAC), | 4,000 | 4,029,200 |
| 5.70%, 7/01/20 | New Jersey Health Care Facilities Financing Barnabas Health Care System, Series A, 5.00%, | 4,155 | 3,281,661 |
| 7/01/29 | New Jersey Health Care Facilities Financing Authority, RB, Somerset Medical Center, 5.50%, | 1,875 | 1,308,131 |
| 7/01/33 | New Jersey Health Care Facilities Financing Jersey Hospital, 5.00%, | 385 | 367,521 |
| Authority, RB, South | | | |
| 7/01/36 | | | |

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(MYJ)**

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|--|--------------|---|--|
| | Par (000) | Value | |
| Municipal Bonds | | | |
| New Jersey Health Care Facilities Financing Authority, RB, South Jersey Hospital, 5.00%, 7/01/46 | \$ 1,650 | \$ 1,527,207 | |
| New Jersey Health Care Facilities Financing Authority, RB, Southern Ocean County Hospital (Radian), 5.13%, 7/01/31 | 2,000 | 1,749,700 | |
| New Jersey Health Care Facilities Financing Authority, RB, Virtua Health (AGC), 5.50%, 7/01/38 | 2,500 | 2,581,175 | |
| | | 40,765,277 | |
| Housing - 17.4% | | | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Capital Fund Program, Series A (FSA), 4.70%, 11/01/25 | 6,950 | 6,986,766 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Home Buyer, Series CC, AMT (MBIA), 5.80%, 10/01/20 | 4,515 | 4,640,472 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Home Buyer, Series U, AMT (MBIA), 5.60%, 10/01/12 | 2,515 | 2,518,823 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series CC, 5.00%, 10/01/34 (f) | 3,455 | 3,430,504 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series T, AMT, 4.65%, 10/01/32 | 4,945 | 4,589,306 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series U, AMT, 4.95%, 10/01/32 | 700 | 677,600 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, S/F Housing, Series X, AMT, 4.85%, 4/01/16 | 3,605 | 3,693,359 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Series A, 4.75%, 11/01/29 | 2,305 | 2,269,895 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Series A, AMT (FGIC), 4.90%, 11/01/35 | 1,365 | 1,273,832 | |
| New Jersey State Housing & Mortgage Finance Agency, RB, Series AA, 6.50%, 10/01/38 | 2,025 | 2,198,826 | |
| Newark Housing Authority, RB, South Ward Police Facility (AGC), 5.75%, 12/01/30 | 1,115 | 1,179,648 | |
| Newark Housing Authority, RB, South Ward Police Facility (AGC), 6.75%, 12/01/38 | 2,670 | 2,991,495 | |
| | | 36,450,526 | |
| State - 36.1% | | | |
| Garden State Preservation Trust, RB, 2005 Series A (FSA), 5.80%, 11/01/22 | 4,300 | 4,974,584 | |
| Garden State Preservation Trust, RB, CAB, Series B (FSA), 5.12%, 11/01/23 (c) | 6,860 | 3,686,290 | |

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| | | |
|---|--------|------------|
| Garden State Preservation Trust, RB, CAB, Series B (FSA), 5.25%, 11/01/28 (c) | 4,540 | 1,846,736 |
| New Jersey EDA, RB, Cigarette Tax (Radian), 5.75%, 6/15/29 | 1,895 | 1,830,058 |
| New Jersey EDA, RB, Cigarette Tax (Radian), 5.50%, 6/15/31 | 370 | 343,082 |
| New Jersey EDA, RB, Cigarette Tax (Radian), 5.75%, 6/15/34 | 755 | 717,801 |
| New Jersey EDA, RB, Department of Human Services, Pooled, 5.00%, 7/01/12 | 220 | 238,324 |
| New Jersey EDA, RB, Motor Vehicle Surcharge, Series A (MBIA), 5.25%, 7/01/33 | 14,000 | 14,125,720 |
| New Jersey EDA, RB, School Facilities Construction, Series L (FSA), 5.00%, 3/01/30 | 5,800 | 5,974,696 |

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|---|--------------|---|--|
| | Par (000) | Value | |
| Municipal Bonds | | | |
| New Jersey EDA, RB, School Facilities Construction, Series O, 5.25%, 3/01/23 | \$ 2,400 | \$ 2,522,712 | |
| New Jersey EDA, RB, School Facilities Construction, Series P, 5.00%, 9/01/15 | 3,000 | 3,331,290 | |
| New Jersey EDA, RB, School Facilities Construction, Series P, 5.25%, 9/01/16 | 3,115 | 3,451,140 | |
| New Jersey EDA, RB, School Facilities Construction, Series Z (AGC), 5.50%, 12/15/34 | 3,665 | 3,949,404 | |
| New Jersey EDA, RB, School Facilities Construction, Series Z (AGC), 6.00%, 12/15/34 | 3,600 | 4,021,668 | |
| New Jersey EDA, Refunding RB, School Facilities Construction, Series AA, 5.50%, 12/15/29 | 3,300 | 3,560,667 | |
| New Jersey State Transit Corp., COP, Federal Transit Administration Grants, Sub-Series B, 5.75%, 9/15/14 | 3,620 | 3,902,577 | |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, CAB, Transportation System, Series C (AMBAC), 5.05%, 12/15/35 (c) | 4,140 | 807,797 | |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series A, 5.50%, 12/15/21 | 3,525 | 3,975,707 | |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series A, 6.00%, 12/15/38 | 2,900 | 3,170,222 | |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series A (AGC), 5.63%, 12/15/28 | 1,250 | 1,399,900 | |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series B (MBIA), 5.50%, 12/15/21 | 5,865 | 6,614,899 | |
| State of New Jersey, COP, Equipment Lease Purchase, Series A, 5.25%, 6/15/28 | 1,100 | 1,137,730 | |
| | | 75,583,004 | |
| Tobacco - 1.4% | | | |
| Tobacco Settlement Financing Corp., New Jersey, RB, 7.00%, 6/01/13 (a) | 500 | 592,955 | |
| Tobacco Settlement Financing Corp., New Jersey, RB, Series 1A, 4.50%, 6/01/23 | 2,720 | 2,435,488 | |
| | | 3,028,443 | |
| Transportation - 14.8% | | | |
| Delaware River Port Authority Pennsylvania & New Jersey, RB (FSA), 6.00%, 1/01/19 | 7,860 | 7,888,768 | |

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| | | |
|--|-------|-----------|
| New Jersey State Turnpike Authority, RB, Growth & Income Securities, Series B (AMBAC), 6.20%, 1/01/35 (c) | 4,870 | 3,759,884 |
| New Jersey State Turnpike Authority, RB, Series E, 5.25%, 1/01/40 | 5,475 | 5,721,758 |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series A, 5.88%, 12/15/38 | 3,050 | 3,299,155 |
| New Jersey Transportation Trust Fund Authority, New Jersey, RB, Transportation System, Series A (AGC), 5.50%, 12/15/38 | 1,000 | 1,082,670 |
| Port Authority of New York & New Jersey, RB, Consolidated 93rd Series, 6.13%, 6/01/94 | 5,000 | 5,809,300 |

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| Schedule of Investments October 31, 2009 (Unaudited) | | (Percentages shown are based on Net Assets) | |
|--|--|---|--------------|
| | | Par | |
| | | (000) | Value |
| | Municipal Bonds | | |
| | Port Authority of New York & New Jersey, RB, Consolidated, 152nd, AMT, 5.75%, 11/01/30 | \$ 3,300 | \$ 3,507,306 |
| | | | 31,068,841 |
| Utilities - 8.5% | Cumberland County Improvement Authority, RB, Series A, 5.00%, 1/01/30 | 1,210 | 1,169,634 |
| | New Jersey EDA, RB, New Jersey American Water Co. Inc. Project, Series A, AMT (FGIC), 6.88%, 11/01/34 | 6,670 | 6,675,536 |
| | New Jersey EDA, RB, Series A, New Jersey, American Water, AMT (AMBAC), 5.25%, 11/01/32 | 1,000 | 945,170 |
| | New Jersey EDA, RB, United Water New Jersey, Inc., Series B 4.50%, 11/01/25 | 4,500 | 4,622,085 |
| | Rahway Valley Sewerage Authority, RB, CAB, Series A (MBIA), 4.87%, 9/01/31(c) | 6,000 | 1,714,020 |
| | Union County Utilities Authority, RB, Senior Lease, Ogden Martin, Series A, AMT (AMBAC), 5.38%, 6/01/17 | 1,585 | 1,588,154 |
| | Union County Utilities Authority, RB, Senior Lease, Ogden Martin, Series A, AMT (AMBAC), 5.38%, 6/01/18 | 1,175 | 1,176,022 |
| | | | 17,890,621 |
| | Total Municipal Bonds in New Jersey | | 283,946,171 |
| Puerto Rico - 6.6% | | | |
| Education - 0.6% | Puerto Rico Industrial Tourist Educational Medical & Environmental Control Facilities Financing Authority, RB, University Plaza Project, Series A (MBIA), 5.00%, 7/01/33 | 1,365 | 1,263,267 |
| Housing - 1.0% | Puerto Rico HFA, RB, Subordinated, Capital Fund Modernization, 5.13%, 12/01/27 | 2,025 | 2,021,355 |
| State - 2.9% | Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 5.75%, 8/01/37 | 6,000 | 6,207,600 |
| Transportation - 1.6% | Puerto Rico Highway & Transportation Authority, Refunding RB, Series CC (AGC), 5.50%, 7/01/31 | 3,000 | 3,289,320 |
| Utilities - 0.5% | Puerto Rico Electric Power Authority, RB, Series WW, 5.50%, 7/01/38 | 1,000 | 1,003,340 |
| | Total Municipal Bonds in Puerto Rico | | 13,784,882 |
| U.S. Virgin Islands - 2.6% | | | |
| Corporate - 2.6% | United States Virgin Islands, RB, Senior Secured, Hovensa Coker | | |

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| | | | |
|--------------------------|--|-------|-------------|
| | Project, AMT, 6.50%, 7/01/21 | 3,500 | 3,551,485 |
| | Virgin Islands Public Finance Authority, RB, Senior Secured, Hovensa | | |
| | Refinery, AMT, 5.88%, 7/01/22 | 1,900 | 1,914,060 |
| | Total Municipal Bonds in the U.S. Virgin Islands | | 5,465,545 |
| | Total Municipal Bonds - 144.6% | | 303,196,598 |
| | Municipal Bonds Transferred to Tender Option Bond Trusts (g) | | |
| New Jersey - 3.3% | | | |
| State - 3.3% | Garden State Preservation Trust, RB, 2005 Series A (FSA), | | |
| | 5.75%, 11/01/28 | 5,460 | 6,832,098 |

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Schedule of Investments October 31, 2009 (Unaudited)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|---|---------------|----------------|
| Municipal Bonds Transferred to Tender Option Bond Trusts (g) | | |
| New York - 1.8% | | |
| Transportation - 1.8% Port Authority of New York & New Jersey, 152nd Series, AMT, 5.25%, 11/01/35 | \$ 3,764 | \$ 3,836,064 |
| Total Municipal Bonds Transferred to Tender Option Bond Trusts - 5.1% | | 10,668,162 |
| Total Long-Term Investments (Cost - \$309,001,737) - 149.7% | | 313,864,760 |
| Short-Term Securities | Shares | |
| CMA New Jersey Municipal Money Fund, 0.04% (h)(i) | 3,881,661 | 3,881,661 |
| Total Short-Term Securities (Cost - \$3,881,661) - 1.9% | | 3,881,661 |
| Total Investments (Cost - \$312,883,398*) - 151.6% | | 317,746,421 |
| Other Assets Less Liabilities - 0.4% | | 730,294 |
| Liability for Trust Certificates, Including Interest Expense and Fees Payable - (3.2)% | | (6,616,024) |
| Preferred Shares, at Redemption Value - (48.8)% | | (102,208,804) |
| Net Assets Applicable to Common Shares - 100.0% | | \$ 209,651,887 |

* The cost and unrealized appreciation (depreciation) of investments as of October 31, 2009, as computed for federal income tax purposes, were as follows:

| | |
|-------------------------------|----------------|
| Aggregate cost | \$ 307,887,232 |
| Gross unrealized appreciation | 12,949,756 |
| Gross unrealized depreciation | (9,694,268) |
| Net unrealized appreciation | \$ 3,255,488 |

(a) US government securities, held in escrow, are used to pay interest on this security as well as to retire the bond in full at the date indicated, typically at a premium to par.

(b) Represents a step-up bond that pays an initial coupon rate for the first period and then higher coupon rate for the following periods. Rate shown is as of report date.

(c) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.

(d) Non-income producing security.

(e) Issuer filed for bankruptcy and/or is in default of interest payments.

(f) When-issued security.

| Counterparty | Market Value | Unrealized Depreciation |
|---------------------|---------------------|--------------------------------|
| Merrill Lynch & Co. | \$3,430,504 | \$ (24,496) |

(g) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.

(h) Investments in companies considered to be an affiliate of the Fund, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

| Affiliate | Net Activity | Income |
|-------------------------------------|---------------------|---------------|
| CMA New Jersey Municipal Money Fund | \$ 700,145 | \$ 263 |

(i) Represents the current yield as of report date.

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Schedule of Investments October 31, 2009 (Unaudited)

Fair Value Measurements Various inputs are used in determining the fair value of investments, which are as follows:

Level 1 - price quotations in active markets/exchanges for identical assets and liabilities

Level 2 - other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 - unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund's own assumptions used in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the risk with investing in those securities. For information about the Fund's policy regarding valuation of and other significant accounting policies, please refer to the Fund's most recent financial statements contained in its annual report.

The following table summarizes the inputs used as of October 31, 2009 in determining the fair valuation of the Fund's investments:

| Valuation Inputs | Investments in Securities Assets |
|--|---|
| Level 1 - Short-Term Securities | \$ 3,881,661 |
| Level 2 - Long-Term Investments ¹ | 313,864,760 |
| Level 3 | - |
| Total | \$ 317,746,421 |

¹ See above Schedule of Investments for values in each sector.

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Item 2 Controls and Procedures

2(a) The registrant's principal executive and principal financial officers or persons performing similar functions have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940, as amended (the 1940 Act)) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13(a)-15(b) under the Securities Exchange Act of 1934, as amended.

2(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are 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 MuniYield New Jersey Fund, Inc.

By: /s/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 18, 2009

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/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer (principal executive officer) of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 18, 2009

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 18, 2009
