

BLACKROCK MUNIYIELD CALIFORNIA FUND, INC  
Form N-Q  
December 22, 2010

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 811-06499

Name of Fund: BlackRock MuniYield California Fund, Inc. (MYC)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock  
MuniYield California 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: 07/31/2011

Date of reporting period: 10/31/2010

Item 1 Schedule of Investments

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## Schedule of Investments October 31, 2010 (Unaudited)

BlackRock MuniYield California Fund, Inc. (MYC)  
 (Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
California 90.5%		
Corporate 5.4%		
California Pollution Control Financing Authority, Waste Management Inc. Project, Series C, RB, AMT (a): 5.13%, 11/01/23	\$ 5,000	\$ 5,174,150
Mandatory Put Bonds, 6.75%, 12/01/27	3,300	3,322,110
City of Chula Vista California, RB, San Diego Gas & Electric, Series B, AMT, 5.00%, 12/01/27	7,500	7,752,750
City of Chula Vista California, Refunding RB, San Diego Gas & Electric, Series A, 5.88%, 2/15/34	975	1,099,936
		17,348,946
County/City/Special District/School District 31.1%		
Arcata Joint Powers Financing Authority California, Tax Allocation Bonds, Refunding, Community Development Project Loan, Series A (AMBAC), 6.00%, 8/01/23	2,415	2,417,053
City & County of San Francisco California, COP, Refunding, Series A: 5.00%, 10/01/29	3,540	3,738,311
5.00%, 10/01/30	6,700	7,031,181
City of Los Angeles California, COP, Senior, Sonnenblick Del Rio West Los Angeles (AMBAC), 6.20%, 11/01/31	2,000	2,022,460
El Dorado Union High School District, GO, Election of 2008, 5.00%, 8/01/35	5,000	5,276,150
El Monte Union High School District California, GO, Election of 2002,		

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Series C (AGM), 5.25%, 6/01/32	10,120	10,831,132
Fontana Unified School District		
California, GO, Series A (AGM), 5.25%, 8/01/28	7,000	7,433,510
Los Angeles Community College District		
California, GO, Election of 2003, Series F-1, 5.00%, 8/01/33	5,550	5,840,931
Los Angeles Municipal Improvement Corp., RB, Real Property, Series E:		
5.75%, 9/01/34	1,000	1,080,420
6.00%, 9/01/34	1,860	2,051,506
Modesto Irrigation District, COP, Series B, 5.50%, 7/01/35	3,300	3,533,970

Municipal Bonds	Par (000)	Value
<b>California (continued)</b>		
County/City/Special District/School District (continued)		
Morgan Hill Unified School District		
California, GO, CAB (FGIC), 5.07%, 8/01/26 (b)(c)	\$ 7,570	\$ 4,321,410
Murrieta Valley Unified School District		
Public Financing Authority, Special Tax Bonds, Refunding, Series A (AGC), 5.13%, 9/01/26	6,575	7,019,930
Oak Grove School District California, GO, Election of 2008, Series A, 5.50%, 8/01/33	4,000	4,374,320
Pico Rivera Public Financing Authority, RB:		
5.50%, 9/01/31	1,500	1,571,505
5.75%, 9/01/39	6,025	6,310,464
Pittsburg Redevelopment Agency, Tax Allocation Bonds, Refunding, Subordinate, Los Medanos Community Project, Series A, 6.50%, 9/01/28	2,750	3,080,797
San Diego Regional Building Authority California, RB, County Operations		

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### Center & Annex, Series A:

5.38%, 2/01/28	150	164,261
5.38%, 2/01/36	3,200	3,441,312
San Jose Evergreen Community College		
District California, GO, Refunding,		
CAB, Election of 2004, Series A		
(NPFGC), 5.12%, 9/01/23 (b)	10,005	5,309,954
San Jose Unified School District Santa		
Clara County California, GO, Election		
of 2002, Series D, 5.00%, 8/01/32	5,000	5,302,900
Santa Ana Unified School District, GO,		
Election of 2008, Series A, 5.13%,		
8/01/33	5,020	5,290,327
Santa Cruz County Redevelopment		
Agency California, Tax Allocation		
Bonds, Live Oak/Soquel Community		
Improvement, Series A:		
6.63%, 9/01/29	1,000	1,117,140
7.00%, 9/01/36	600	677,970

### 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.	FGIC	Financial Guaranty Insurance Co.
AGM	Assured Guaranty Municipal Corp.	GO	General Obligation Bonds
AMBAC	American Municipal Bond Assurance Corp.	LRB	Lease Revenue Bonds
AMT	Alternative Minimum Tax (subject to)	NPFGC	National Public Finance Guarantee Corp.
CAB	Capital Appreciation Bonds	RB	Revenue Bonds
COP	Certificates of Participation		

BLACKROCK MUNIYIELD CALIFORNIA FUND, INC.

OCTOBER 31, 2010

Schedule of Investments<sup>(continued)</sup>

BlackRock MuniYield California Fund, Inc. (MYC)  
 (Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
<b>California (continued)</b>		
County/City/Special District/School		
District (concluded)		
Westminster Redevelopment Agency		
California, Tax Allocation Bonds, Subordinate, Commercial		
Redevelopment Project No. 1 (AGC), 6.25%, 11/01/39	\$ 1,250	\$ 1,443,238
		100,682,152
<b>Education 6.6%</b>		
California Educational Facilities		
Authority, RB, Pitzer College, 6.00%, 4/01/40	2,500	2,765,075
California State Enterprise Development		
Authority, Refunding RB, The Thacher School Project, 5.13%, 9/01/39	6,965	7,191,920
California State University, RB, Systemwide, Series A, 5.50%, 11/01/39	2,725	2,954,281
San Francisco Community College		
District, GO, Election of 2005, Series D, 5.00%, 6/15/34	5,420	5,755,823
University of California, RB, Limited Project, Series D (NPFGC), 5.00%, 5/15/32	2,500	2,619,175
		21,286,274
<b>Health 12.0%</b>		
ABAG Finance Authority for Nonprofit		
Corps, Refunding RB, Sharp Healthcare, 6.38%, 8/01/34	2,000	2,141,620
California Health Facilities Financing		
Authority, Refunding RB: Catholic Healthcare West, Series A,		

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6.00%, 7/01/39	10,000	10,886,700
Catholic Healthcare West, Series E,		
5.63%, 7/01/25	6,000	6,515,760
St. Joseph Health System, Series A,		
5.50%, 7/01/29	2,100	2,235,303
California Statewide Communities		
Development Authority, RB, Health		
Facility, Memorial Health Services,		
Series A:		
6.00%, 10/01/23	3,270	3,448,836
5.50%, 10/01/33	3,015	3,097,400
California Statewide Communities		
Development Authority, Refunding RB:		
Catholic Healthcare West, Series D,		
5.50%, 7/01/31	5,155	5,382,490
Senior Living, Southern California,		
6.25%, 11/15/19	500	537,535
Senior Living, Southern California,		
6.63%, 11/15/24	650	707,337
Senior Living, Southern California,		
7.00%, 11/15/29	500	546,530
Senior Living, Southern California,		
7.25%, 11/15/41	1,750	1,925,280
City of Torrance California, Refunding		
RB, Torrance Memorial Medical		
Center, Series A, 6.00%, 6/01/22	1,310	1,348,750
		38,773,541

	Par	
	(000)	Value
Municipal Bonds		
<b>California (continued)</b>		
<b>Housing 1.1%</b>		
California Rural Home Mortgage Finance		
Authority, RB, AMT:		
Mortgage-Backed Securities		
Program, Series B (Ginnie Mae),		
6.15%, 6/01/20	\$ 20	\$ 20,949
Sub-Series FH-1, 5.50%, 8/01/47	400	201,140
Santa Clara County Housing Authority		
California, RB, John Burns Gardens		

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Apartments Project, Series A, AMT, 6.00%, 8/01/41	3,500	3,511,305 3,733,394
<b>State 8.9%</b>		
California State Public Works Board, RB: Department of Developmental Services, Porterville, Series C, 6.25%, 4/01/34	1,100	1,188,033
Department of Education, Riverside Campus Project, Series B, 6.50%, 4/01/34	10,000	11,020,300
Trustees of the California State University, Series D, 6.00%, 4/01/27	215	233,778
Various Capital Projects, Sub-Series I-1, 6.38%, 11/01/34	1,850	2,027,730
State of California, GO, Various Purpose: 6.00%, 3/01/33	4,000	4,594,560
6.50%, 4/01/33	5,000	5,878,350
6.00%, 4/01/35	3,390	3,790,935
		28,733,686
<b>Transportation 4.6%</b>		
County of Orange California, RB, Series B, 5.75%, 7/01/34	3,000	3,288,030
County of Sacramento California, RB, Senior Series B, 5.75%, 7/01/39	900	980,469
San Francisco City & County Airports Commission, RB, Series E, 6.00%, 5/01/39	4,835	5,432,558
San Francisco Port Commission California, RB, Series A, 5.13%, 3/01/40	5,000	5,105,700 14,806,757
<b>Utilities 20.8%</b>		
California Infrastructure & Economic Development Bank, RB, California Independent System Operator, Series A, 6.25%, 2/01/39	2,170	2,324,851
California Pollution Control Financing Authority, RB, American Water Capital Corp. Project, 5.25%, 8/01/40 (d)	2,000	2,022,660

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California Statewide Communities  
Development Authority, RB, Pooled  
Financing Program, Series C, City of  
West Sacramento (AGM), 5.25%,

10/01/28	2,380	2,463,205
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California Statewide Communities  
Development Authority, Refunding RB,  
Southern California Edison, Series A,  
4.50%, 9/01/29

5,000	4,943,400
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OCTOBER 31, 2010

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Schedule of Investments<sup>(continued)</sup>

BlackRock MuniYield California Fund, Inc. (MYC)  
 (Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
California (concluded)		
Utilities (concluded)		
City of Chula Vista California, Refunding RB, San Diego Gas & Electric, Series D, 5.88%, 1/01/34	\$ 2,500	\$ 2,820,350
City of Los Angeles California, Refunding RB, Sub-Series A, 5.00%, 6/01/32	3,000	3,224,490
Eastern Municipal Water District California, COP, Series H, 5.00%, 7/01/35	8,000	8,383,520
Los Angeles Department of Water & Power, RB, System, Sub-Series A-1 (AMBAC), 5.00%, 7/01/38	6,530	6,830,837
Oxnard Financing Authority, RB, Redwood Trunk Sewer & Headworks, Series A (NPFGC), 5.25%, 6/01/34	4,205	4,337,626
Sacramento Municipal Utility District, RB, Cosumnes Project (NPFGC), 5.13%, 7/01/29	18,500	19,345,080
Sacramento Regional County Sanitation District, Refunding RB, County Sanitation District 1 (NPFGC), 5.00%, 8/01/35	5,925	6,124,435
San Diego Public Facilities Financing Authority, Refunding RB, Senior Series A, 5.38%, 5/15/34	1,910	2,075,406
San Francisco City & County Public Utilities Commission, Refunding RB, Series A, 5.13%, 11/01/39	2,295	2,462,076
		67,357,936
Total Municipal Bonds in California		292,722,686
Puerto Rico 2.8%		
County/City/Special District/School District 1.4%		

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Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 6.50%, 8/01/44	4,000	4,604,560
State 1.4%		
Commonwealth of Puerto Rico, GO, Refunding, Public Improvement, Series B, 6.50%, 7/01/37	4,000	4,568,880
Total Municipal Bonds in Puerto Rico		9,173,440
Total Municipal Bonds 93.3%		301,896,126
Municipal Bonds Transferred to Tender		
Option Bond Trusts (e)		
California 74.4%		
Corporate 8.4%		
San Francisco Bay Area Rapid Transit District, Refunding RB, Series A (NPFGC), 5.00%, 7/01/30	6,000	6,331,560
University of California, RB: Limited Project, Series B (AGM), 5.00%, 5/15/33	8,488	8,791,280
Series L, 5.00%, 5/15/40	11,597	12,095,976
		27,218,816
County/City/Special District/School District 36.2%		
City of Los Angeles California, Refunding RB, Series A, 5.00%, 6/01/39	9,870	10,397,650
Municipal Bonds Transferred to Tender		
Option Bond Trusts (e)	Par (000)	Value
California (continued)		
County/City/Special District/School District (concluded)		
Contra Costa Community College District California, GO, Election of 2002 (AGM), 5.00%, 8/01/30	\$ 10,215	\$ 10,534,775
Fremont Unified School District Alameda County California, GO, Election of 2002, Series B (AGM), 5.00%, 8/01/30	4,003	4,158,792
Los Angeles Community College District California, GO: Election of 2001, Series E-1, 5.00%,		

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8/01/33	14,850	15,628,437
Election of 2003, Series E (AGM), 5.00%, 8/01/31	10,002	10,474,051
Election of 2008, Series A, 6.00%, 8/01/33	3,828	4,394,988
Election of 2008, Series C, 5.25%, 8/01/39	9,680	10,413,744
Orange County Sanitation District, COP (NPFGC), 5.00%, 2/01/33	9,348	9,557,019
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33	7,732	8,386,368
San Francisco Bay Area Transit Financing Authority, Refunding RB, Series A (NPFGC), 5.00%, 7/01/34	5,439	5,670,240
Santa Clara County Financing Authority, Refunding LRB, Series L, 5.25%, 5/15/36	10,001	10,627,665
Sonoma County Junior College District, GO, Refunding, Election of 2002, Series B (AGM), 5.00%, 8/01/28	6,875	7,256,901
Twin Rivers Unified School District, GO, Election of 2006 (AGM), 5.00%, 8/01/29	9,390	9,680,808
		117,181,438
<b>Education 10.5%</b>		
California Educational Facilities Authority, RB, University of Southern California, Series A, 5.25%, 10/01/39	13,845	14,990,120
California State University, RB, Systemwide, Series A (AGM), 5.00%, 11/01/39	4,840	4,989,556
Peralta Community College District, GO, Election of 2000, Series D (AGM), 5.00%, 8/01/30	1,995	2,079,628
University of California, RB: Series L, 5.00%, 5/15/36	8,500	8,875,530
Series O, 5.75%, 5/15/34	2,805	3,198,653
		34,133,487
<b>Utilities 19.3%</b>		
Eastern Municipal Water District, COP,		

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Series H, 5.00%, 7/01/33 Los Angeles Department of Water & Power, RB: Power System, Sub-Series A-1 (AMBAC), 5.00%, 7/01/37 System, Sub-Series A-2 (AGM), 5.00%, 7/01/35	4,748    15,098  7,250	4,994,696    15,847,171  7,498,965
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BLACKROCK MUNIYIELD CALIFORNIA FUND, INC.

OCTOBER 31, 2010

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## Schedule of Investments<sup>(concluded)</sup>

BlackRock MuniYield California Fund, Inc. (MYC)  
(Percentages shown are based on Net Assets)

	Par	Value
Option Bond Trusts (e)	(000)	
<b>California (concluded)</b>		
<b>Utilities (concluded)</b>		
Metropolitan Water District of Southern California, RB:		
Series A, 5.00%, 7/01/37	\$ 20,000	\$ 21,172,000
Series C, 5.00%, 7/01/35	7,145	7,515,082
San Diego County Water Authority, COP, Series A (AGM), 5.00%, 5/01/31	5,010	5,267,364
		62,295,278
Total Municipal Bonds Transferred to Tender Option Bond Trusts 74.4%		240,829,019
Total Long-Term Investments (Cost \$520,944,381) 167.7%		542,725,145
Short-Term Securities	Shares	
BIF California Municipal Money Fund, 0.04%, 12/31/22 (f)(g)	3,983,597	3,983,597
Total Short-Term Securities (Cost \$3,983,597) 1.3%		3,983,597
Total Investments (Cost \$524,927,978*) 169.0%		546,708,742
Other Assets Less Liabilities 1.7%		5,593,901
Liability for Trust Certificates, Including Interest Expense and Fees Payable (37.9)%		(122,766,857)
Preferred Shares, at Redemption Value (32.8)%		(105,960,238)
Net Assets Applicable to Common Shares 100.0%		\$ 323,575,548

\* The cost and unrealized appreciation (depreciation) of investments as of October 31, 2010, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 402,443,003
Gross unrealized appreciation	\$ 22,446,843
Gross unrealized depreciation	(839,758)
Net unrealized appreciation	\$ 21,607,085

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- (a) Variable rate security. Rate shown is as of report date.
- (b) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.
- (c) Security is collateralized by Municipal or US Treasury obligations.
- (d) Security exempt from registration under Rule 144A of the Securities Act of 1933. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (e) 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.
- (f) Investments in companies considered to be an affiliate of the Fund during the period, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

	Shares Held at July 31, 2010	Net Activity	Shares Held at October 31, 2010	Income
Affiliate				
BIF California Municipal Money Fund	12,364,497	(8,380,900)	3,983,597	\$ 887

- (g) Represents the current yield as of report date.

For Fund compliance purposes, the Fund's sector classifications refer to any one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by Fund management. This definition may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

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)

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

The following table summarizes the inputs used as of October 31, 2010 in determining the fair valuation of the Fund's investments:

Valuation Inputs	Level 1	Level 2	Level 3	Total
Assets:				
Investments in Securities:				
Long-Term				
Investments <sup>1</sup>		\$ 542,725,145		\$542,725,145
Short-Term				
Securities	\$ 3,983,597			3,983,597
Total		\$ 3,983,597	\$ 542,725,145	\$546,708,742

<sup>1</sup> See above Schedule of Investments for values in each sector.

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OCTOBER 31, 2010

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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 13a-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 California Fund, Inc.

By: /s/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer of

BlackRock MuniYield California Fund, Inc.

Date: December 22, 2010

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 California Fund, Inc.

Date: December 22, 2010

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniYield California Fund, Inc.

Date: December 22, 2010

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