

BLACKROCK MUNIYIELD CALIFORNIA QUALITY FUND, INC.

Form N-CSR

October 02, 2013

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

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FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT

INVESTMENT COMPANIES

Investment Company Act file number 811-06692

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

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield California Quality Fund, Inc., 55 East 52nd Street, New York, NY 10055

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Date of fiscal year end: 07/31/2013

Date of reporting period: 07/31/2013

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Item 1 Report to Stockholders

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JULY 31, 2013

ANNUAL REPORT

BlackRock MuniHoldings Quality Fund II, Inc. (MUE)

BlackRock MuniYield California Quality Fund, Inc. (MCA)

BlackRock MuniYield Michigan Quality Fund II, Inc. (MYM)

BlackRock MuniYield New York Quality Fund, Inc. (MYN)

BlackRock MuniYield Quality Fund III, Inc. (MYI)

Not FDIC Insured May Lose Value No Bank Guarantee

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Dear Shareholder

One year ago, risk assets (such as equities) were on the rise as weakening global economic data spurred increasing optimism that the world's largest central banks would intervene to stimulate growth. This much-anticipated monetary policy easing ultimately came in September when the European Central Bank (ECB) and the US Federal Reserve announced their plans for increasing global liquidity. Although financial markets worldwide were buoyed by these aggressive policy actions, risk assets weakened later in the fall of 2012. Global trade slowed as many European countries fell into recession and growth continued to decelerate in China. In the United States, investors became increasingly concerned about the fiscal cliff of tax increases and spending cuts that had been scheduled to take effect at the beginning of 2013. High levels of global market volatility persisted through year-end due to fears that bipartisan gridlock would preclude a timely resolution, putting the US economy at high risk for recession. As 2013 began, the worst of the fiscal cliff was averted with a last-minute tax deal.

Investors shook off the nerve-racking finale to 2012 and the New Year started with a powerful relief rally. Money that had been pulled to the sidelines amid year-end tax-rate uncertainty poured back into the markets in January. Key indicators signaling modest but broad-based improvements in the world's major economies helped propel the rally. Underlying this aura of comfort was the absence of negative headlines from Europe. Global equities surged, while rising US Treasury yields pressured high quality fixed income assets. (Bond prices move in the opposite direction of yields.)

However, February brought a slowdown in global economic momentum and the pace of the rally moderated. In the months that followed, US equities outperformed international markets, as the US economic recovery showed greater stability compared to most other regions. Slow, but positive, growth in the United States was sufficient to support corporate earnings, while uncomfortably high unemployment reinforced investors' expectations that the US Federal Reserve would keep interest rates low. International markets experienced higher levels of volatility as political instability in Italy and a severe banking crisis in Cyprus reminded investors that the eurozone was still vulnerable to a number of macro risks, while a poor outlook for European economies also dampened sentiment. Emerging markets significantly lagged the rest of the world as growth in these economies (particularly China and Brazil) fell short of expectations.

After peaking in late May, financial markets broadly sold off due to concerns about the US Federal Reserve reducing monetary stimulus. Volatility picked up considerably as investors abruptly retreated from risk assets and a sharp and dramatic rise in US Treasury yields resulted in tumbling prices for higher-quality fixed income investments. The downswing bottomed out in late June as a more dovish tone from the US central bank served to quell the volatility in interest rates, while improving economic data and a positive outlook for corporate earnings helped the markets regain strength in July, with major US equity indices regularly hitting new record highs.

Despite the swings in the markets in the second quarter, most risk asset classes generated positive returns for the 6- and 12-month periods ended July 31, 2013. US equities were particularly strong. International equities also performed well, although political and economic uncertainty in Europe resulted in less impressive gains for the last six months. Emerging markets suffered the impact of slowing growth and concerns about a shrinking global money supply. Extreme levels of interest rate volatility in the final months of the period resulted in poor performance for fixed income markets, especially US Treasury bonds and other higher quality sectors such as tax-exempt municipals and investment grade corporate bonds. The high yield sector performed relatively better as demand continued to be supported by investors' ongoing search for income in the low-rate environment. Short-term interest rates remained near zero, keeping yields on money market securities near historical lows.

Market conditions remain volatile, and investors still face a number of uncertainties in the current environment. At BlackRock, we believe investors need to think globally and extend their scope across a broader array of asset classes and be prepared to move freely as market conditions change over time. We encourage you to talk with your financial advisor and visit www.blackrock.com for further insight about investing in today's world.

Sincerely,

Rob Kapito

President, BlackRock Advisors, LLC

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Despite the swings in the markets in the second quarter, most risk asset classes generated positive returns for the 6- and 12-month periods ended July 31, 2013.

Rob Kapito

President, BlackRock Advisors, LLC

Total Returns as of July 31, 2013

	6-month	12-month
US large cap equities (S&P 500® Index)	13.73%	25.00%
US small cap equities (Russell 2000® Index)	16.66	34.76
International equities (MSCI Europe, Australasia, Far East Index)	4.11	23.48
Emerging market equities (MSCI Emerging Markets Index)	(9.87)	1.95
3-month Treasury bill (BofA Merrill Lynch 3-Month US Treasury Bill Index)	0.05	0.11
US Treasury securities (BofA Merrill Lynch 10-Year US Treasury Index)	(3.71)	(6.50)
US investment grade bonds (Barclays US Aggregate Bond Index)	(1.62)	(1.91)
Tax-exempt municipal bonds (S&P Municipal Bond Index)	(4.11)	(1.99)
US high yield bonds (Barclays US Corporate High Yield 2% Issuer Capped Index)	1.97	9.49

Past performance is no guarantee of future results. Index performance is shown for illustrative purposes only. You cannot invest directly in an index.

THIS PAGE NOT PART OF YOUR FUND REPORT

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Municipal Market Overview

For the Reporting Period Ended July 31, 2013

Municipal Market Conditions

During the majority of the period, municipal bond supply was met with strong demand as investors were starved for yield in the low-rate, low-return environment. Investors poured into municipal bond mutual funds, favoring long-duration and high-yield funds as they tend to provide higher levels of income.

However, municipal bond funds saw robust outflows in the last three months of the period, leaving net flows essentially flat for the 12-month period as a whole (based on data from the Investment Company Institute). Market conditions turned less favorable in May when signals from the US Federal Reserve suggesting a retrenchment of its bond-buying stimulus program led to rising interest rates and waning demand. (Bond prices fall as rates rise.) High levels of interest rate volatility resulted in a sharp curtailment of tax-exempt issuance in May, June and July. However, from a historical perspective, total new issuance for the 12 months ended July 31, 2013 remained relatively strong at \$358 billion (down modestly from the \$369 billion issued in the prior 12-month period). A significant portion of new supply during this period (roughly 60%) was attributable to refinancing activity as issuers took advantage of lower interest rates to reduce their borrowing costs. Total new supply was also supported by recent activity in the taxable market, where taxable-municipal issuance was up 58% year-over-year.

S&P Municipal Bond Index
 Total Returns as of July 31, 2013
 6 months: (4.11)%
 12 months: (1.99)%

A Closer Look at Yields

From July 31, 2012 to July 31, 2013, municipal yields increased by 136 basis points (bps) from 2.84% to 4.20% on AAA-rated 30-year municipal bonds, while increasing 101 bps from 1.66% to 2.67% on 10-year bonds and rising another 62 bps from 0.65% to 1.27% on 5-year issues (as measured by Thomson Municipal Market Data). Overall, the municipal yield curve remained relatively steep over the 12-month period as the spread between 2- and 30-year maturities widened by 122 bps and the spread between 2- and 10-year maturities widened by 87 bps.

During the same time period, US Treasury rates rose by 109 bps on 30-year and 111 bps on 10-year bonds, while moving up 80 bps in 5-years. Accordingly, tax-exempt municipal bonds moderately outperformed Treasuries in the short and intermediate portion of the yield curve. This outperformance was driven largely by a supply/demand imbalance within the municipal market while evidence of a recovering domestic economy coupled with the removal of certain political and tax policy uncertainties pushed interest rates higher. Additionally, as higher US tax rates began to appear imminent late in 2012, municipal bonds benefited from the increased appeal of tax-exempt investing. The municipal market continues to be an attractive avenue for investors seeking yield in today's environment of low absolute rates as the asset class is known for its lower volatility and preservation of principal with an emphasis on income as tax rates rise.

Financial Conditions of Municipal Issuers Continue to Improve

Following an extended period of nation-wide austerity and de-leveraging as states sought to balance their budgets, 13 consecutive quarters of positive revenue growth coupled with the elimination of more than 750,000 jobs in recent years have put state and local governments in a better financial position. Many local municipalities, however, continue to face increased health care and pension costs passed down from the state level. BlackRock maintains the view that municipal bond defaults will be minimal and remain in the periphery, and that the overall market is fundamentally sound. We continue to recognize that careful credit research, appropriate structure and security selection remain imperative amid uncertainty in this fragile economic environment.

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The Benefits and Risks of Leveraging

The Funds may utilize leverage to seek to enhance the yield and net asset value (NAV) of their common shares (Common Shares). However, these objectives cannot be achieved in all interest rate environments.

To obtain leverage, the Funds issue Variable Rate Demand Preferred Shares (VRDP Shares) or Variable Rate Muni Term Preferred Shares (VMTP Shares) (VRDP Shares and VMTP Shares are collectively referred to as Preferred Shares). Preferred Shares pay dividends at prevailing short-term interest rates, and the Funds invest the proceeds in long-term municipal bonds. In general, the concept of leveraging is based on the premise that the financing cost of assets to be obtained from leverage, which will be based on short-term interest rates, will normally be lower than the income earned by each Fund on its longer-term portfolio investments. To the extent that the total assets of each Fund (including the assets obtained from leverage) are invested in higher-yielding portfolio investments, each Fund's shareholders will benefit from the incremental net income.

The interest earned on securities purchased with the proceeds from leverage is paid to shareholders in the form of dividends, and the value of these portfolio holdings is reflected in the per share NAV. However, in order to benefit shareholders, the yield curve must be positively sloped; that is, short-term interest rates must be lower than long-term interest rates. If the yield curve becomes negatively sloped, meaning short-term interest rates exceed long-term interest rates, income to shareholders will be lower than if the Funds had not used leverage.

To illustrate these concepts, assume a Fund's Common Shares capitalization is \$100 million and it issues Preferred Shares for an additional \$50 million, creating a total value of \$150 million available for investment in long-term municipal bonds. If prevailing short-term interest rates are 3% and long-term interest rates are 6%, the yield curve has a strongly positive slope. In this case, the Fund pays dividends on the \$50 million of Preferred Shares based on the lower short-term interest rates. At the same time, the securities purchased by the Fund with assets received from Preferred Shares issuance earn income based on long-term interest rates. In this case, the dividends paid to holders of Preferred Shares (Preferred Shareholders) are significantly lower than the income earned on the Fund's long-term investments, and therefore the holders of Common Shares (Common Shareholders) are the beneficiaries of the incremental net income.

If short-term interest rates rise, narrowing the differential between short-term and long-term interest rates, the incremental net income pickup will be reduced or eliminated completely. Furthermore, if prevailing short-term interest rates rise above long-term interest rates, the yield curve has a negative slope. In this case, the Fund pays higher short-term interest rates whereas the Fund's total portfolio earns income based on lower long-term interest rates.

Furthermore, the value of the Funds' portfolio investments generally varies inversely with the direction of long-term interest rates, although other factors can influence the value of portfolio investments. In contrast, the redemption value of the Funds' Preferred Shares does not fluctuate in relation to interest rates. As a result, changes in interest rates can influence the Funds' NAVs positively or negatively in addition to the impact on Fund performance from leverage from Preferred Shares discussed above.

The Funds may also leverage their assets through the use of tender option bond trusts (TOBs), as described in Note 3 of the Notes to Financial Statements. TOB investments generally will provide the Funds with economic benefits in periods of declining short-term interest rates, but expose the Funds to risks during periods of rising short-term interest rates similar to those associated with Preferred Shares issued by the Funds, as described above. Additionally, fluctuations in the market value of municipal bonds deposited into the TOB trust may adversely affect each Fund's NAV per share.

The use of leverage may enhance opportunities for increased income to the Funds and Common Shareholders, but as described above, it also creates risks as short- or long-term interest rates fluctuate. Leverage also will generally cause greater changes in the Funds' NAVs, market prices and dividend rates than comparable portfolios without leverage. If the income derived from securities purchased with assets received from leverage exceeds the cost of leverage, the Funds' net income will be greater than if leverage had not been used. Conversely, if the income from the securities purchased is not sufficient to cover the cost of leverage, each Fund's net income will be less than if leverage had not been used, and therefore the amount available for distribution to Common Shareholders will be reduced. Each Fund may be required to sell portfolio securities at inopportune times or at distressed values in order to comply with regulatory requirements applicable to the use of leverage or as required by the terms of leverage instruments, which may cause a Fund to incur losses. The use of leverage may limit each Fund's ability to invest in certain types of securities or use certain types of hedging strategies, such as in the case of certain restrictions imposed by rating agencies that rate the Preferred Shares issued by the Funds. Each Fund will incur expenses in connection with the use of leverage, all of which are borne by Common Shareholders and may reduce income to the Common Shares.

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Under the Investment Company Act of 1940, as amended (the "1940 Act"), the Funds are permitted to issue senior securities in the form of equity securities (e.g., Preferred Shares) up to 50% of their total managed assets (each Fund's total assets less the sum of its accrued liabilities). In addition, each Fund voluntarily limits its economic leverage to 45% of its total managed assets. As of July 31, 2013, the Funds had economic leverage from Preferred Shares and/or TOBs as a percentage of their total managed assets as follows:

	Percent of Economic Leverage
MUE	42%
MCA	41%
MYM	40%
MYN	41%
MYI	41%

Derivative Financial Instruments

The Funds may invest in various derivative financial instruments, including financial futures contracts and options, as specified in Note 4 of the Notes to Financial Statements, which may constitute forms of economic leverage. Such derivative financial instruments are used to obtain exposure to a security, index and/or market without owning or taking physical custody of securities or to hedge market and/or interest rate risks. Derivative financial instruments involve risks, including the imperfect correlation between the value of a derivative financial instrument and the underlying asset, possible default of the counterparty to the transaction or illiquidity of the derivative financial instrument. The Funds' ability to use a derivative financial instrument successfully depends on the investment advisor's ability to predict pertinent market movements accurately, which cannot be assured. The use of derivative financial instruments may result in losses greater than if they had not been used, may require a Fund to sell or purchase portfolio investments at inopportune times or for distressed values, may limit the amount of appreciation a Fund can realize on an investment, may result in lower dividends paid to shareholders or may cause a Fund to hold an investment that it might otherwise sell. The Funds' investments in these instruments are discussed in detail in the Notes to Financial Statements.

Table of Contents**Fund Summary** as of July 31, 2013**BlackRock MuniHoldings Quality Fund II,
Inc.****Fund Overview**

BlackRock MuniHoldings Quality Fund II, Inc.'s (MUE) (the Fund) investment objective is to provide shareholders with current income exempt from federal income taxes. The Fund seeks to achieve its investment objective by investing primarily in long-term, investment grade municipal obligations exempt from federal income taxes (except that the interest may be subject to the federal alternative minimum tax). Under normal market conditions, the Fund invests at least 80% of its assets in municipal obligations with remaining maturities of one year or more at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12-month period ended July 31, 2013, the Fund returned (16.08)% based on market price and (7.41)% based on NAV. For the same period, the closed-end Lipper General & Insured Municipal Debt Funds (Leveraged) category posted an average return of (14.54)% based on market price and (5.78)% based on NAV. All returns reflect reinvestment of dividends. The Fund moved from a premium to NAV to a discount by period end, which accounts for the difference between performance based on price and performance based on NAV.

The Fund's longer duration holdings (those with greater sensitivity to interest rate movements) hindered results as the yield curve began to steepen in 2013 (rates on longer-dated bonds rose more than rates on shorter-dated securities). This especially impacted the Fund's holdings in the water and sewer, utilities, transportation and education sectors. Leverage on the Fund's assets achieved through the use of tender option bonds amplified the negative effect of rising rates on the Fund's holdings. The Fund's holdings of Puerto Rico Sales Tax Revenue Bonds had a negative impact on performance as the continued decline of Puerto Rico's economy and concerns about credit rating agency downgrades resulted in falling prices across Puerto Rico securities.

Contributing positively to the Fund's performance was its use of derivatives to hedge against interest rate risk. Specifically, short positions in US Treasury financial futures enhanced results as interest rates increased during the period. Additionally, the Fund's holdings in pre-refunded bonds with terms of up to five years added to returns as investors seeking protection amid interest rate volatility moved down the yield curve. The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on New York Stock Exchange (NYSE)	MUE
Initial Offering Date	February 26, 1999
Yield on Closing Market Price as of July 31, 2013 (\$12.32) ¹	6.87%
Tax Equivalent Yield ²	12.14%
Current Monthly Distribution per Common Share ³	\$0.0705
Current Annualized Distribution per Common Share ³	\$0.8460
Economic Leverage as of July 31, 2013 ⁴	42%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

² Tax equivalent yield assumes the maximum marginal federal tax rate of 43.4%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.

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³ The distribution rate is not constant and is subject to change.

⁴ Represents VMTP Shares and TOBs as a percentage of total managed assets, which is the total assets of the Fund, including any assets attributable to VMTP Shares and TOBs, minus the sum of accrued liabilities. For a discussion of leveraging techniques utilized by the Fund, please see The Benefits and Risks of Leveraging on page 5.

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ANNUAL REPORT

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BlackRock MuniHoldings Quality Fund II, Inc.

Market Price and Net Asset Value Per Share Summary

	7/31/13	7/31/12	Change	High	Low
Market Price	\$ 12.32	\$ 15.55	(20.77)%	\$ 16.22	\$ 12.13
Net Asset Value	\$ 13.27	\$ 15.18	(12.58)%	\$ 15.89	\$ 13.11

Market Price and Net Asset Value History For the Past Five Years

Overview of the Fund's Long-Term Investments

Sector Allocation	7/31/13	7/31/12
Transportation	28%	21%
County/City/Special District/School District	25	28
Utilities	21	17
State	9	15
Health	8	10
Education	6	6
Tobacco	2	1
Housing	1	2
Credit Quality Allocation¹	7/31/13	7/31/12
AAA/Aaa	7%	16%
AA/Aa	65	63
A	28	20
BBB/Baa		1

¹ Using the higher of Standard & Poor's (S&P's) or Moody's Investors Service (Moody's) ratings.

Call/Maturity Schedule²

Calendar Year Ended December 31,

2013	
2014	4%
2015	2
2016	2
2017	3

² Scheduled maturity dates and/or bonds that are subject to potential calls by issuers over the next five years.

Table of Contents**Fund Summary** as of July 31, 2013**BlackRock MuniYield California Quality Fund, Inc.****Fund Overview**

BlackRock MuniYield California Quality Fund, Inc.'s (MCA) (the Fund) investment objective is to provide shareholders with as high a level of current income exempt from federal and California income taxes as is consistent with its investment policies and prudent investment management. The Fund seeks to achieve its investment objective by investing at least 80% of its assets in municipal obligations exempt from federal income taxes (except that the interest may be subject to the federal alternative minimum tax) and California income taxes. Under normal market conditions, the Fund invests primarily in long-term municipal obligations that are investment grade quality at the time of investment. The Fund may invest directly in such securities or synthetically through the use of derivatives.

No assurance can be given that the Fund's investment objective will be achieved.

Performance

For the 12-month period ended July 31, 2013, the Fund returned (12.83)% based on market price and (5.41)% based on NAV. For the same period, the closed-end Lipper California Municipal Debt Funds category posted an average return of (12.17)% based on market price and (4.63)% based on NAV. All returns reflect reinvestment of dividends. The Fund's discount to NAV, which widened during the period, accounts for the difference between performance based on price and performance based on NAV. The following discussion relates to performance based on NAV.

The Fund posted a negative return as bond prices broadly declined in the rising interest rate environment. The Fund's exposure to bonds with longer maturities, which tend to have higher durations (greater sensitivity to interest rate movements), particularly hurt performance during the period. Additionally, leverage on the Fund's assets achieved through the use of tender option bonds amplified the negative effect of rising rates on the Fund's holdings. As rates rose rather significantly in the latter part of the period, pushing bond prices down indiscriminately, California school districts and the education and utilities sectors were especially exposed to price depreciation. To a degree, this represented an unwinding of the positive performance in these segments when rates fell in prior periods.

While the Fund's cash reserves were generally maintained at a minimal level, to the extent reserves were held, these holdings were low-yielding products that provided liquidity to the Fund although they offered no return potential. The Fund's use of derivatives to hedge against interest rate risk helped performance. Specifically, short positions in US Treasury financial futures enhanced results as rates increased during the period.

The views expressed reflect the opinions of BlackRock as of the date of this report and are subject to change based on changes in market, economic or other conditions. These views are not intended to be a forecast of future events and are no guarantee of future results.

Fund Information

Symbol on NYSE	MCA
Initial Offering Date	October 30, 1992
Yield on Closing Market Price as of July 31, 2013 (\$13.66) ¹	6.68%
Tax Equivalent Yield ²	13.61%
Current Monthly Distribution per Common Share ³	\$0.076
Current Annualized Distribution per Common Share ³	\$0.912
Economic Leverage as of July 31, 2013 ⁴	41%

¹ Yield on closing market price is calculated by dividing the current annualized distribution per share by the closing market price. Past performance does not guarantee future results.

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- ² Tax equivalent yield assumes the maximum marginal federal and state tax rate of 50.93%, which includes the 3.8% Medicare tax. Actual tax rates will vary based on income, exemptions and deductions. Lower taxes will result in lower tax equivalent yields.