Nuveen California Municipal Value Fund 2 Form N-Q July 29, 2016

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-O

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-22272

Nuveen California Municipal Value Fund 2 (Exact name of registrant as specified in charter)

Nuveen Investments
333 West Wacker Drive, Chicago, Illinois 60606
(Address of principal executive offices) (Zip code)

Kevin J. McCarthy
Vice President and Secretary
333 West Wacker Drive, Chicago, Illinois 60606
(Name and address of agent for service)

Registrant's telephone number, including area code: 312-917-7700

Date of fiscal year end: 2/29

Date of reporting period: 5/31/16

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

Portfolio of Investments

Nuveen California Municipal Value Fund 2 (NCB) May 31, 2016 (Unaudited)

Principal Amount (000)	Description (1)	Optional Call Provisions (2)	Ratings (3)	Value
	LONG-TERM INVESTMENTS – 95.9% (100.0% of Total Investments)			
	MUNICIPAL BONDS – 95.9% (100.0% of Total Investments)			
\$ 2,000	Consumer Staples – 6.5% (6.8% of Total Investments) Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Bonds, Series 2007A-1, 5.000%, 6/01/33	6/17 at 100.00	В-	\$ 2,013,120
1,000	Silicon Valley Tobacco Securitization Authority, California, Tobacco Settlement Asset-Backed	6/17 at 26.07	BB	229,500
	Bonds, Santa Clara County Tobacco Securitization Corporation, Series 2007A, 0.000%, 6/01/41			
1,500	Tobacco Securitization Authority of Northern California, Tobacco Settlement Asset-Backed	8/16 at 100.00	В-	1,499,895
4,500	Bonds, Series 2005A-1, 5.500%, 6/01/45 Total Consumer Staples Education and Civic Organizations – 2.2% (2.3% of Total			3,742,515
865	Investments) California Educational Facilities Authority, Revenue Bonds, University of the Pacific, Series 2009, 5.500%, 11/01/39	11/19 at 100.00	A2	973,955
100	California Municipal Finance Authority, Charter School Revenue Bonds, Rocketship	6/22 at 102.00	N/R	117,412
150	Education Multiple Projects, Series 2014A, 7.250%, 6/01/43 California Statewide Communities Development Authority, School Facility Revenue Bonds, Alliance College-Ready Public Schools, Series 2011A, 7.000%, 7/01/46	7/21 at 100.00	BBB-	174,512
1,115	Total Education and Civic Organizations			1,265,879
1,000	Health Care – 14.2% (14.8% of Total Investments) ABAG Finance Authority for Non-Profit Corporations, California, Cal-Mortgage Insured Health Facility Revenue Bonds, Saint Rose Hospital, Series 2009A,	5/19 at 100.00	AA-	1,135,380
1,900	6.000%, 5/15/29 California Health Facilities Financing Authority, Revenue Bonds, Catholic Healthcare West, Series 2009A, 6.000%, 7/01/39	7/19 at 100.00	A	2,172,745

1,000	California Health Facilities Financing Authority, Revenue Bonds, Childrens Hospital of Orange	11/19 at 100.00	A	1,178,920
70	County, Series 2009A, 6.500%, 11/01/38 California Health Facilities Financing Authority, Revenue Bonds, Lucile Salter Packard Children's Hamital Spring 2014A, 5,000%, 8/15/43	8/24 at 100.00	AA	81,945
75	Children's Hospital, Series 2014A, 5.000%, 8/15/43 California Health Facilities Financing Authority, Revenue Bonds, Providence Health & Services, Series 2014A, 5.000%, 10/01/38	10/24 at 100.00	AA	88,529
150	California Health Facilities Financing Authority, Revenue Bonds, Providence Health & Services, Series 2014B, 5.000%, 10/01/44	10/24 at 100.00	AA	175,464
500	California Municipal Financing Authority, Certificates of Participation, Community Hospitals of Central California, Series 2007, 5.250%, 2/01/27	2/17 at 100.00	A-	512,450
470	California Statewide Communities Development Authority, California, Revenue Bonds, Loma Linda	6/26 at 100.00	ВВ	530,433
685	University Medical Center, Series 2016A, 5.250%, 12/01/56 California Statewide Communities Development Authority, Revenu Bonds, Adventist Health System West, Series 2007B, 5.000%, 2/01/27, ACC Insured	e3/18 at 100.00	AA	724,244
250	System West, Series 2007B, 5.000%, 3/01/37 – AGC Insured Palomar Pomerado Health Care District, California, Certificates of Participation, Series 2009,	11/19 at 100.00	Ba1	278,913
725	6.625%, 11/01/29 Palomar Pomerado Health Care District, California, Certificates of Participation, Series 2010,	11/20 at 100.00	Ba1	775,873
380	6.000%, 11/01/41 San Buenaventura, California, Revenue Bonds, Community Memorial Health System, Series 2011,	12/21 at 100.00	BB+	469,908
7,205	7.500%, 12/01/41 Total Health Care Housing/Multifamily – 1.2% (1.2% of Total Investments)			8,124,804
225	California Municipal Finance Authority, Mobile Home Park Revenue Bonds, Caritas Projects Series 2010A, 6.400%, 8/15/45	8/20 at 100.00	BBB	250,576
70	California Municipal Finance Authority, Mobile Home Park Revenue Bonds, Caritas Projects	8/22 at 100.00	BBB	79,642
250	Series 2012A, 5.500%, 8/15/47 California Municipal Finance Authority, Mobile Home Park Revenue Bonds, Caritas Projects Series 2012B, 7.250%, 8/15/47	8/22 at 100.00	A1	292,440
	California Municipal Finance Authority, Mobile Home Park Senior Revenue Bonds, Caritas Affordable Housing, Inc. Projects, Series 2014A:			
15	5.250%, 8/15/39	8/24 at 100.00	BBB	17,122
40	5.250%, 8/15/49	8/24 at 100.00	BBB	45,482
600	Total Housing/Multifamily Housing/Single Femily 4.5% (4.7% of Total Investments)	100.00		685,262
130	Housing/Single Family – 4.5% (4.7% of Total Investments)		A	131,997

	California Housing Finance Agency, California, Home Mortgage Revenue Bonds, Series 2008L, 5.500%, 8/01/38	2/18 at 100.00		
2,435	California Housing Finance Agency, Home Mortgage Revenue Bonds, Series 2006K, 4.625%, 8/01/26 (Alternative Minimum Tax)	8/16 at 100.00	A	2,450,266
2,565	Total Housing/Single Family Long-Term Care – 2.1% (2.2% of Total Investments)			2,582,263
1,000	California Health Facilities Financing Authority, Insured Revenue Bonds, Community Program for Persons with Developmental Disabilities, Series 2011A, 6.250%, 2/01/26	2/21 at 100.00	AA-	1,220,940
	Tax Obligation/General – 11.6% (12.1% of Total Investments)			
2,100	Carlsbad Unified School District, San Diego County, California, General Obligation Bonds, Series 2009B, 0.000%, 5/01/34 (4)	5/24 at 100.00	AA	2,225,202
195	Oceanside Unified School District, San Diego County, California, General Obligation Bonds,	8/20 at 13.60	AA	23,765
1,000	Election 2008 Series 2010B, 0.000%, 8/01/49 – AGM Insured San Diego Unified School District, San Diego County, California, General Obligation Bonds, Dedicated Unlimited Ad Valorem Property Tax, 2012 Election	7/25 at 100.00	AAA	1,207,420
	Series 2016F, 5.000%, 7/01/40			
10,000	San Marcos Unified School District, San Diego County, California, General Obligation Bonds, 2010 Election, Series 2012B, 0.000%, 8/01/51	No Opt. Call	AA-	2,622,099
500	Western Riverside Water & Wastewater Financing Authority, California, Revenue Bonds, Western	8/19 at 100.00	AA	563,415
	Municipal Water District, Series 2009, 5.625%, 9/01/39 – AGC Insured			
13,795	Total Tax Obligation/General			6,641,901
,	Tax Obligation/Limited – 18.2% (19.0% of Total Investments)			, ,
1,965	California State Public Works Board, Lease Revenue Bonds, Department of Education Riverside	4/19 at 100.00	A+	2,238,548
	Campus Project, Series 2009B, 5.750%, 4/01/23 California State Public Works Board, Lease Revenue Bonds,	3/20 at		
500	Various Capital Projects, Series 2010A-1, 6.000%, 3/01/35	100.00	A+	590,095
160	Fontana Redevelopment Agency, San Bernardino County, California, Tax Allocation Bonds, Jurupa	10/16 at 100.00	A	162,525
	Hills Redevelopment Project, Refunding Series 1997A, 5.500%, 10/01/27			
	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement			
	Asset-Backed Revenue Bonds, Refunding Series 2015A:	6/05 04		
180	5.000%, 6/01/40	6/25 at 100.00	A+	213,673
1,820	5.000%, 6/01/45	6/25 at 100.00	A+	2,152,478
145	Inglewood Redevelopment Agency, California, Tax Allocation Bonds, Merged Redevelopment	5/17 at 100.00	BBB+	148,205

	Project, Subordinate Lien Series 2007A-1, 5.000%, 5/01/25 – AMBAC Insured			
425	Lancaster Redevelopment Agency, California, Tax Allocation Bonds, Combined Redevelopment	No Opt. Call	BBB	492,171
80	Project Areas Housing Programs, Series 2009, 6.875%, 8/01/39 National City Community Development Commission, California, Tax Allocation Bonds, National City Redevelopment Project, Series 2011, 6.500%, 8/01/24	8/21 at 100.00	A	100,330
30	· · · · · · · · · · · · · · · · · · ·	9/21 at 100.00	BBB+	36,455
	Patterson Public Financing Authority, California, Revenue Bonds, Community Facilities District 2001-1, Senior Series 2013A:			
210	5.250%, 9/01/30	9/23 at 100.00	N/R	235,051
190	5.750%, 9/01/39	9/23 at 100.00	N/R	213,573
35	Patterson Public Finance Authority, California, Revenue Bonds, Community Facilities District 2001-1, Subordinate Lien Series 2013B, 5.875%, 9/01/39	9/23 at 100.00	N/R	39,077
95	Rancho Santa Fe CSD Financing Authority, California, Revenue Bonds, Superior Lien Series 2011A, 5.750%, 9/01/30	9/21 at 100.00	A-	111,203
15	Riverside County Redevelopment Agency, California, Tax Allocation Bonds, Jurupa Valley Project Area, Series 2011B, 6.500%, 10/01/25	10/21 at 100.00	A	18,572
20	San Clemente, California, Special Tax Revenue Bonds, Community Facilities District 2006-1	9/25 at 100.00	N/R	22,816
1,000	Marblehead Coastal, Series 2015, 5.000%, 9/01/40 San Francisco City and County Redevelopment Financing Authority California, Tax Allocation Revenue Bonds, San Francisco Redevelopment Projects, Series 2009B, 6.625%, 8/01/39	,8/19 at 100.00	AA-	1,168,250
1,500	San Francisco City and County, California, Certificates of Participation, Multiple Capital Improvement Projects, Series 2009A, 5.250%, 4/01/31	4/19 at 100.00	AA	1,672,830
585	San Jose Redevelopment Agency, California, Tax Allocation Bonds, Merged Area Redevelopment Project, Refunding Series 2006D, 5.000%, 8/01/22 – AMBAC	8/17 at 100.00	BBB+	610,254
125	Insured San Jose Redevelopment Agency, California, Tax Allocation Bonds, Merged Area Redevelopment Project, Series 2006C, 5.000%, 8/01/25 – NPFG Insured	8/17 at 100.00	AA-	130,964
25	Signal Hill Redevelopment Agency, California, Project 1 Tax Allocation Bonds, Series 2011,	4/21 at 100.00	N/R	29,896
40	7.000%, 10/01/26 Yorba Linda Redevelopment Agency, Orange County, California, Tax Allocation Revenue Bonds, Yorba Linda Redevelopment Project, Subordinate Lien Series 2011A, 6.000%, 9/01/26	9/21 at 100.00	A-	48,520

9,145	Total Tax Obligation/Limited Transportation – 5.0% (5.2% of Total Investments)			10,435,486
395	Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Bonds, Refunding Junior Lien Series 2013C, 6.500%, 1/15/43 Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Bonds, Refunding Series 2013A:	1/24 at 100.00	BB+	474,683
865	5.750%, 1/15/46	1/24 at 100.00	BBB-	1,020,804
865	6.000%, 1/15/53	1/24 at 100.00	BBB-	1,025,708
305	Port of Oakland, California, Revenue Bonds, Refunding Series 2012P, 5.000%, 5/01/31 (Alternative Minimum Tax)	No Opt. Call	A+	351,400
2,430	Total Transportation U.S. Guaranteed – 14.3% (15.0% of Total Investments) (5) California Educational Facilities Authority, Revenue Bonds, University of the Pacific, Series 2009:			2,872,595
55	5.500%, 11/01/39 (Pre-refunded 11/01/19)	11/19 at 100.00	N/R (5)	63,456
80	5.500%, 11/01/39 (Pre-refunded 11/01/19)	11/19 at 100.00	A2 (5)	92,299
350	California Municipal Financing Authority, Certificates of Participation, Community Hospitals of Central California, Series 2007, 5.250%, 2/01/27 (Pre-refunded 2/01/17) California State, General Obligation Bonds, Various Purpose Series 2007:	2/17 at 100.00	N/R (5)	360,952
1,230	5.000%, 6/01/37 (Pre-refunded 6/01/17) – NPFG Insured	6/17 at 100.00	AA- (5)	1,284,378
770	5.000%, 6/01/37 (Pre-refunded 6/01/17) – NPFG Insured	6/17 at 100.00	AA- (5)	804,042
575	Lancaster Redevelopment Agency, California, Tax Allocation Bonds, Combined Redevelopment Project Areas Housing Programs, Series 2009, 6.875%, 8/01/39 (Pre-refunded 8/01/19)	8/19 at 100.00	N/R (5)	682,836
1,120	Oakland, California, General Obligation Bonds, Measure DD Series 2009B, 5.250%, 1/15/29 (Pre-refunded 1/15/19)	1/19 at 100.00	Aa2 (5)	1,248,890
3,805	Oceanside Unified School District, San Diego County, California, General Obligation Bonds, Election 2008 Series 2010B, 0.000%, 8/01/49 (Pre-refunded 8/01/20) – AGM Insured	8/20 at 13.60	AA (5)	489,742
2,000	Orange County Sanitation District, California, Certificates of Participation, Tender Option Bond Trust 3020, 16.823%, 2/01/35 (Pre-refunded 2/01/19) (IF) (6)	2/19 at 100.00	AAA	2,882,240
240	Pittsburg Redevelopment Agency, California, Tax Allocation Bonds Los Medanos Community	,9/18 at 100.00	BBB- (5)270,871

15	Development Project, Refunding Series 2008A, 6.500%, 9/01/28 (Pre-refunded 9/01/18) San Francisco Redevelopment Finance Authority, California, Tax Allocation Revenue Bonds, Mission Bay North Redevelopment Project, Series 2011C, 6.750%, 8/01/41 (Pre-refunded 2/01/21) San Francisco Redevelopment Financing Authority, California, Tax Allocation Revenue Bonds, Mission Bay South Redevelopment Project, Series 2011D:	2/21 at 100.00	A-(5)	18,825
15	7.000%, 8/01/33 (Pre-refunded 2/01/21)	2/21 at 100.00	BBB+ (5)18,979
15	7.000%, 8/01/41 (Pre-refunded 2/01/21)	2/21 at 100.00	BBB+ (5)18,979
10,270	Total U.S. Guaranteed Utilities – 14.0% (14.6% of Total Investments)			8,236,489
1,000	M-S-R Energy Authority, California, Gas Revenue Bonds, Citigroup Prepay Contracts, Series 2009C 6 500% 11/01/39			1,442,020
2,495	Roseville Natural Gas Financing Authority, California, Gas Revenue Bonds, Series 2007, 5.000%, 2/15/17	No Opt. Call	A	2,556,725
2,400	Southern California Public Power Authority, Natural Gas Project 1 Revenue Bonds, Series 2007A, 5.250%, 11/01/24	No Opt. Call	A	2,934,814
1,000	Tuolumne Wind Project Authority, California, Revenue Bonds, Tuolumne Company Project, Series 2009A, 5.625%, 1/01/29	1/19 at 100.00	AA-	1,116,420
6,895	Total Utilities			8,049,979
1,075	Water and Sewer – 2.1% (2.1% of Total Investments) California Pollution Control Financing Authority, Water Furnishing Revenue Bonds, Poseidon Resources Channelside LP Desalination Project, Series 2012, 5.000%, 11/21/45 (Alternative	No Opt. Call	Baa3	1,186,788
\$ 60,595	Minimum Tax) Total Long-Term Investments (cost \$45,769,765) Other Assets Less Liabilities – 4.1% Net Assets Applicable to Common Shares – 100%			55,044,901 2,334,425 \$ 57,379,326

Fair Value Measurements

Fair value is defined as the price that would be received upon selling an investment or transferring a liability in an orderly transaction to an independent buyer in the principal or most advantageous market for the investment. A three-tier hierarchy is used to maximize the use of observable market data and minimize the use of unobservable inputs and to establish classification of fair value measurements for disclosure purposes. Observable inputs reflect the assumptions market participants would use in pricing the asset or liability. Observable inputs are based on market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability. Unobservable inputs are based on the best information available in the circumstances. The following is a summary of the three-tiered hierarchy of valuation input levels.

Level 1 – Inputs are unadjusted and prices are determined using quoted prices in active markets for identical securities.

Level 2 – Prices are determined using other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3 – Prices are determined using significant unobservable inputs (including management's assumptions in determining the fair value of investments).

The inputs or methodologies used for valuing securities are not an indication of the risks associated with investing in those securities. The following is a summary of the Fund's fair value measurements as of the end of the reporting period:

Level 1 Level 2 Level 3 Total

Long-Term Investments:

Municipal Bonds \$— \$55,044,901\$— \$55,044,901

Income Tax Information

The following information is presented on an income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to timing differences in recognizing taxable market discount, timing differences in recognizing certain gains and losses on investment transactions and the treatment of investments in inverse floating rate securities reflected as financing transactions, if any. To the extent that differences arise that are permanent in nature, such amounts are reclassified within the capital accounts on the Statement of Assets and Liabilities presented in the annual report, based on their federal tax basis treatment; temporary differences do not require reclassification. Temporary and permanent differences do not impact the net asset value of the Fund. As of May 31, 2016, the cost of investments was \$45,089,929.

Gross unrealized appreciation and gross unrealized depreciation of investments as of May 31, 2016, were as follows:

Gross unrealized:

Appreciation \$9,954,972

Depreciation –

Net unrealized appreciation (depreciation) of investments \$9,954,972

- (1) All percentages shown in the Portfolio of Investments are based on net assets applicable to common shares unless otherwise noted.
- (2) Optional Call Provisions: Dates (month and year) and prices of the earliest optional call or redemption. There may be other call provisions at varying prices at later dates. Certain mortgage-backed securities may be subject to periodic principal paydowns.
- (3) Ratings: Using the highest of Standard & Poor's Group ("Standard & Poor's"), Moody's Investors Service, Inc. ("Moody's") or Fitch, Inc. ("Fitch") rating. Ratings below BBB by Standard & Poor's, Baa by Moody's or BBB by Fitch are considered to be below investment grade. Holdings designated N/R are not rated by any of these national rating agencies.
- (4) Step-up coupon. The rate shown is the coupon as of the end of the reporting period.
- (5) Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities,

- which ensure the timely payment of principal and interest. Certain bonds backed by U.S. Government or agency securities are regarded as having an implied rating equal to the rating of such securities.
- (6) Investment, or portion of investment, has been pledged to collateralize the net payment obligations for investments in inverse floating rate transactions.
- (IF) Inverse floating rate investment.

Item 2. Controls and Procedures.

- 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") (17 CFR 270.30a-3(c))) are effective, as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).
- 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 (17 CFR 270.30a-3(d)) 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.

File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: See EX-99 CERT attached hereto.

SIGNATURES

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.

(Registrant) Nuveen California Municipal Value Fund 2

By (Signature and Title) /s/ Kevin J. McCarthy

Kevin J. McCarthy

Vice President and Secretary

Date: July 29, 2016

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 (Signature and Title) /s/ Gifford R. Zimmerman

Gifford R. Zimmerman

Chief Administrative Officer (principal executive officer)

Date: July 29, 2016

By (Signature and Title) /s/ Stephen D. Foy

Stephen D. Foy

Vice President and Controller (principal financial officer)

Date: July 29, 2016