NUVEEN INSURED CALIFORNIA PREMIUM INCOME MUNICIPAL FUND 2 IN Form N-Q July 28, 2006

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-7492

Nuveen Insured California Premium Income Municipal Fund 2, Inc.

(Exact name of registrant as specified in charter)

333 West Wacker Drive, Chicago, Illinois 60606

(Address of principal executive offices) (Zip code)

Jessica R. Droeger 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: <u>312-917-7700</u>

Date of fiscal year end: <u>8/31</u>

Date of reporting period: ____5/31/06

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 (Unaudited) Nuveen Insured California Premium Income Municipal Fund 2, Inc. (NCL) May 31, 2006

Principal Amount (000) Description (1) Optiona Cal Provisions (2

	Education and Civic Organizations 🛛 12.5% (8.4% of Total Investments)	
	California Educational Facilities Authority, Revenue Bonds, Santa Clara University,	
	Series 1996:	
\$ 2,400	5.750%, 9/01/21 🛛 MBIA Insured	9/06 at 102.0
3,000	5.750%, 9/01/26 🛛 MBIA Insured	9/06 at 102.0
2,000		11/10 at 100.0
	2000, 5.875%, 11/01/20 [] MBIA Insured	
2,125	California Educational Facilities Authority, Student Loan Revenue Bonds, Cal Loan Program,	3/08 at 102.0
5 200	Series 2001A, 5.400%, 3/01/21 🛛 MBIA Insured (Alternative Minimum Tax)	5/1 / _+ 100 /
5,380		5/14 at 100.0
1 500	FSA Insured	5/15 at 100 (
1,500	California State University, Systemwide Revenue Bonds, Series 2005A, 5.000%, 11/01/25 🛛 AMBAC Insured	5/15 at 100.0
6 000		5/12 at 100 (
6,000	University of California, Revenue Bonds, Multi-Purpose Projects, Series 2003A, 5.000%, 5/15/27 [] AMBAC Insured	5/13 at 100.0
 22,405	Total Education and Civic Organizations	
	Health Care 🛛 1.8% (1.2% of Total Investments)	
1,450	California Health Facilities Financing Authority, Insured Health Facility Revenue Refunding	7/06 at 102.0
	Bonds, Mark Twain St. Joseph 🛛 s Healthcare Corporation, Series 1996A, 6.000%, 7/01/19 🗋	
	MBIA Insured	
1,755	University of California, Hospital Revenue Bonds, UCLA Medical Center, Series 2004A, 5.500%,	5/12 at 101.
	5/15/18 🛛 AMBAC Insured	
3,205	Total Health Care	
	Housing/Single Family 🛛 0.6% (0.4% of Total Investments)	
1,100	California Housing Finance Agency, Single Family Mortgage Bonds, Series 1997C-2-II, 5.625%,	8/07 at 101.5
	8/01/20 🛛 MBIA Insured (Alternative Minimum Tax)	
	Tax Obligation/General 🛛 14.8% (9.9% of Total Investments)	
1,460	ABC Unified School District, Los Angeles County, California, General Obligation Bonds, Series	8/10 at 101.0
	2000B, 5.750%, 8/01/16 🛛 FGIC Insured	
4,400	California, General Obligation Bonds, Series 2003, 5.000%, 2/01/31 🛛 MBIA Insured	2/13 at 100.0
	California, General Obligation Bonds, Series 2004:	
1,000	5.000%, 2/01/18 🛛 AMBAC Insured	2/14 at 100.0
2,250	5.000%, 4/01/31 🛛 AMBAC Insured	4/14 at 100.0
3,000	California, General Obligation Veterans Welfare Bonds, Series 2001BZ, 5.375%, 12/01/24 🛛 MBIA Insured (Alternative Minimum Tax)	6/07 at 101.0
1,910	Fresno Unified School District, Fresno County, California, General Obligation Bonds, Series 2002A, 6.000%, 8/01/26 🛛 MBIA Insured	No Opt. C
1,255		8/15 at 100.0
2,200		7/13 at 100.0
1,270	Merced City School District, Merced County, California, General Obligation Bonds, Series 2004,	8/13 at 100.
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5.000%, 8/01/22 [] FGIC Insured Oakland Unified School District, Alameda County, California, General Obligation Bonds, Series 2005: 405 5.000%, 8/01/25 [] MBIA Insured 8/15 at 100.00 430 5.000%, 8/01/26 [] MBIA Insured 8/15 at 100.00 1,125 San Diego Unified School District, California, General Obligation Bonds, Election of 1998, No Opt. Cal Series 1999A, 0.000%, 7/01/21 [] FGIC Insured 2,000 San Francisco Community College District, California, General Obligation Bonds, Series 2002A, 6/10 at 102.00 5.000%, 6/15/26 [] FGIC Insured San Jose-Evergreen Community College District, Santa Clara County, California, General Obligation Bonds, Series 2005A: 320 5.000%, 9/01/25 [] MBIA Insured 9/15 at 100.00 9/15 at 100.00 465 5.000%, 9/01/27 [] MBIA Insured 1,000 San Ramon Valley Unified School District, Contra Costa County, California, General Obligation 8/14 at 100.00 Bonds, Series 2004, 5.000%, 8/01/24 [] FSA Insured 8/13 at 100.00 2,445 Washington Unified School District, Yolo County, California, General Obligation Bonds, Series 2004A, 5.000%, 8/01/21 [] FGIC Insured

26,935 Total Tax Obligation/General

	Tax Obligation/Limited 🛛 45.0% (30.1% of Total Investments)	
	Anaheim Public Finance Authority, California, Subordinate Lease Revenue Bonds, Public	
	Improvement Project, Series 1997C:	
5,130	0.000%, 9/01/18 🛛 FSA Insured	No Opt. Cal
8,000	0.000%, 9/01/21 🛛 FSA Insured	No Opt. Cal
3,500	California Department of Transportation, Federal Highway Grant Anticipation Bonds, Series	No Opt. Cal
	2004A, 5.000%, 2/01/15 🛛 FGIC Insured	
	California Infrastructure Economic Development Bank, Revenue Bonds, North County Center for	
	Self-Sufficiency Corporation, Series 2004:	
1,535	5.000%, 12/01/20 🛾 AMBAC Insured	12/13 at 100.00
1,780	5.000%, 12/01/23 🛾 AMBAC Insured	12/13 at 100.00
5,000	Compton Community Redevelopment Agency, California, Tax Allocation Refunding Bonds, Merged	8/06 at 101.00
	Area Redevelopment Projects, Series 1995A, 6.500%, 8/01/13 🛛 FSA Insured	
4,000	Contra Costa County, California, Certificates of Participation Refunding, Merrithew Memorial	11/07 at 102.00
	Hospital Replacement, Series 1997, 5.500%, 11/01/22 🛛 MBIA Insured	
6,000	El Monte, California, Senior Lien Certificates of Participation, Department of Public Services	1/11 at 100.00
	Facility Phase II, Series 2001, 5.000%, 1/01/21 🛛 AMBAC Insured	
8,280	Fontana Public Financing Authority, California, Tax Allocation Revenue Bonds, North Fontana	10/15 at 100.00
	Redevelopment Project, Series 2005A, 5.000%, 10/01/32 🛛 AMBAC Insured	
3,000	Galt Schools Joint Powers Authority, Sacramento County, California, Revenue Refunding Bonds,	11/07 at 102.00
	High School and Elementary School Facilities, Series 1997A, 5.875%, 11/01/24 🛛 MBIA Insured	
285	Hesperia Community Redevelopment Agency, California, Tax Allocation Bonds, Series 2005A,	9/15 at 100.00
	5.000%, 9/01/20 🛛 XLCA Insured	
5,000	Kern County Board of Education, California, Certificates of Participation Refunding, Series	5/08 at 102.00
	1998A, 5.200%, 5/01/28 🛛 MBIA Insured	
5,000	La Quinta Redevelopment Agency, California, Tax Allocation Refunding Bonds, Redevelopment	9/07 at 102.00
	Project Area 1, Series 1998, 5.200%, 9/01/28 🛛 AMBAC Insured	
2,300	Long Beach Bond Finance Authority, California, Multiple Project Tax Allocation Bonds, Housing	8/15 at 100.00

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	and Gas Utility Financing Project Areas, Series 2005A-1, 5.000%, 8/01/25 🛛 AMBAC Insured	
1,000	Los Angeles Community Redevelopment Agency, California, Tax Allocation Bonds, Bunker Hill	12/14 at 100.00
	Project, Series 2004A, 5.000%, 12/01/20 🛛 FSA Insured	
1,250	Los Angeles County Metropolitan Transportation Authority, California, Proposition A First Tier	7/13 at 100.00
	Senior Sales Tax Revenue Bonds, Series 2003B, 5.000%, 7/01/19 🛛 MBIA Insured	
2,500	Los Angeles County Metropolitan Transportation Authority, California, Proposition A First Tier	7/15 at 100.00
	Senior Sales Tax Revenue Bonds, Series 2005A, 5.000%, 7/01/26 🛛 AMBAC Insured	
3,865	Los Angeles County Metropolitan Transportation Authority, California, Proposition C Second	7/10 at 101.00
	Senior Lien Sales Tax Revenue Bonds, Series 2000A, 5.250%, 7/01/30 🛛 FGIC Insured	
4,000	Los Angeles, California, Certificates of Participation, Municipal Improvement Corporation,	6/13 at 100.00
	Series 2003AW, 5.000%, 6/01/33 🛛 AMBAC Insured	
2,780	Pittsburg Redevelopment Agency, California, Tax Allocation Refunding Bonds, Los Medanos	No Opt. Cal
	Community Development Project, Series 2003A, 5.000%, 8/01/12 🛛 MBIA Insured	
4,140	Plumas County, California, Certificates of Participation, Capital Improvement Program, Series	6/13 at 101.00
	2003A, 5.000%, 6/01/28 🛛 AMBAC Insured	
2,000	Poway Redevelopment Agency, California, Tax Allocation Refunding Bonds, Paguay Redevelopment	12/10 at 102.00
	Project, Series 2000, 5.750%, 6/15/33 🛛 MBIA Insured	
325	Rialto Redevelopment Agency, California, Tax Allocation Bonds, Merged Project Area, Series	9/15 at 100.00
	2005A, 5.000%, 9/01/35 🛛 XLCA Insured	
685	Riverside County Public Financing Authority, California, Tax Allocation Bonds, Multiple	10/15 at 100.00
	Projects, Series 2005A, 5.000%, 10/01/35 🛛 XLCA Insured	
1,000	Rocklin Unified School District, Placer County, California, Special Tax Bonds, Community	9/13 at 100.00
	Facilities District 1, Series 2004, 5.000%, 9/01/25 🛛 MBIA Insured	
5,000	San Bernardino Joint Powers Financing Authority, California, Certificates of Participation	9/09 at 102.00
	Refunding, Police Station Financing Project, Series 1999, 5.500%, 9/01/20 🛛 MBIA Insured	

87,355 Total Tax Obligation/Limited

Transportation 🛛 6.9% (4.6% of Total Investments)	
6,500 Foothill/Eastern Transportation Corridor Agency, California, Toll Road Revenue Refunding 1/1	0 at 65.32
Bonds, Series 1999, 0.000%, 1/15/18 🛛 MBIA Insured	
4,000 Orange County Transportation Authority, California, Toll Road Revenue Bonds, 91 Express Lanes 8/13	at 100.00
Project, Series 2003A, 5.000%, 8/15/18 🛛 AMBAC Insured	
5,000 San Francisco Airports Commission, California, Revenue Refunding Bonds, San Francisco 5/11	at 100.00
International Airport, Second Series 2001, Issue 27A, 5.250%, 5/01/31 🛛 MBIA Insured	
(Alternative Minimum Tax)	

15,500 Total Transportation

	U.S. Guaranteed 🛛 32.9% (22.0% of Total Investments) (4)	
	California Infrastructure Economic Development Bank, Revenue Bonds, Asian Art Museum of San	
	Francisco, Series 2000:	
1,295	5.500%, 6/01/19 (Pre-refunded 6/01/10) 🛛 MBIA Insured	6/10 at 101.00
1,000	5.500%, 6/01/20 (Pre-refunded 6/01/10) 🛛 MBIA Insured	6/10 at 101.00
3,450	California State Public Works Board, Lease Revenue Bonds, Department of Health Services,	11/09 at 101.00
	Series 1999A, 5.750%, 11/01/24 (Pre-refunded 11/01/09) 🛛 MBIA Insured	
2,500	California, Various Purpose General Obligation Bonds, Series 1999, 5.500%, 9/01/24	9/09 at 101.00
	(Pre-refunded 9/01/09) 🛛 FSA Insured	

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California, Various Purpose General Obligation Bonds, Series 2000: 7,995 5.750%, 3/01/22 (Pre-refunded 3/01/10) [] MBIA Insured 3/10 at 101.00 1,900 5.750%, 3/01/27 (Pre-refunded 3/01/10) [] MBIA Insured 3/10 at 101.00 2,580 Central Unified School District, Fresno County, California, General Obligation Bonds, Series 9/06 at 100.00 1993, 5.625%, 3/01/18 [] AMBAC Insured (ETM) 3,000 Escondido Union High School District, San Diego County, California, General Obligation Bonds, 11/06 at 102.00 Series 1996, 5.700%, 11/01/10 [] MBIA Insured (ETM) Fresno Unified School District, Fresno County, California, General Obligation Bonds, Series 2001F: 8/09 at 102.00 1,065 5.125%, 8/01/21 [] FSA Insured (ETM) 1,160 5.125%, 8/01/22 [] FSA Insured (ETM) 8/09 at 102.00 1,220 5.125%, 8/01/23 [] FSA Insured (ETM) 8/09 at 102.00 8/10 at 101.00 1,500 Hacienda La Puente Unified School District, Los Angeles County, California, General Obligation Bonds, Series 2000A, 5.250%, 8/01/25 (Pre-refunded 8/01/10) [] MBIA Insured Kern Community College District, California, General Obligation Bonds, Series 2003A: 11/13 at 100.00 3,655 5.000%, 11/01/20 (Pre-refunded 11/01/13) [] FGIC Insured 2,665 5.000%, 11/01/21 (Pre-refunded 11/01/13) [] FGIC Insured 11/13 at 100.00 1,750 Lake Tahoe Unified School District, El Dorado County, California, General Obligation Bonds, 8/09 at 100.00 Series 1999A, 5.250%, 8/01/24 (Pre-refunded 8/01/09) [] FGIC Insured Manteca Unified School District, San Joaquin County, California, General Obligation Bonds, Series 2004: 1,000 5.250%, 8/01/21 (Pre-refunded 8/01/14) [] FSA Insured 8/14 at 100.00 1,000 5.250%, 8/01/22 (Pre-refunded 8/01/14) [] FSA Insured 8/14 at 100.00 9/06 at 102.00 440 Menifee Union School District, Riverside County, California, Certificates of Participation, School Projects, Series 1996, 6.125%, 9/01/24 (Pre-refunded 9/01/06) [] FSA Insured 2,500 Oakland, California, Insured Revenue Bonds, 1800 Harrison Foundation [] Kaiser Permanente, 1/10 at 100.00 Series 1999A, 6.000%, 1/01/29 (Pre-refunded 1/01/10) [] AMBAC Insured 4,320 Riverside County, California, GNMA Mortgage-Backed Securities Program Single Family Mortgage No Opt. Cal Revenue Bonds, Series 1987B, 8.625%, 5/01/16 (Alternative Minimum Tax) (ETM) 12/09 at 102.00 1,690 Sacramento City Financing Authority, California, Capital Improvement Revenue Bonds, Solid Waste and Redevelopment Projects, Series 1999, 5.800%, 12/01/19 (Pre-refunded 12/01/09) AMBAC Insured 1,000 Sacramento County Sanitation District Financing Authority, California, Revenue Bonds, Series 12/10 at 101.00 2000A, 5.500%, 12/01/20 (Pre-refunded 12/01/10) [] AMBAC Insured 3,500 San Francisco Bay Area Rapid Transit District, California, Sales Tax Revenue Bonds, Series 7/09 at 101.00 1999, 5.500%, 7/01/34 (Pre-refunded 7/01/09) [] FGIC Insured 4,450 Visalia, California, Certificates of Participation Refunding, Motor Vehicle License Fee 12/06 at 102.00 Enhancement, Series 1996A, 5.375%, 12/01/26 (Pre-refunded 12/01/06) [] MBIA Insured

56,635 Total U.S. Guaranteed

Utilities [] 11.7% (7.8% of Total Investments)

3,740	California Pollution Control Financing Authority, Revenue Refunding Bonds, Southern California	9/09 at 101.00
	Edison Company, Series 1999B, 5.450%, 9/01/29 🛛 MBIA Insured	
670	Merced Irrigation District, California, Electric System Revenue Bonds, Series 2005, 5.125%,	9/15 at 100.00
	9/01/31 🛛 XLCA Insured	
3,215	Modesto Irrigation District, California, Revenue Refunding Bonds, Series 1996A, 6.000%,	10/06 at 102.00
	10/01/15 🛛 MBIA Insured	

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3,500	Puerto Rico Electric Power Authority, Power Revenue Bonds, Series 2002II, 5.125%, 7/01/26 []	7/12 at 101.00
100		12/09 at 102.00
	Waste and Redevelopment Projects, Series 1999, 5.800%, 12/01/19 🛛 AMBAC Insured	
1,950	Salinas Valley Solid Waste Authority, California, Revenue Bonds, Series 2002, 5.250%,	8/12 at 100.00
	8/01/27 🛛 AMBAC Insured (Alternative Minimum Tax)	
	Santa Clara, California, Subordinate Electric Revenue Bonds, Series 2003A:	
2,800	5.000%, 7/01/24 🛛 MBIA Insured	7/13 at 100.00
5,000	5.000%, 7/01/28 🛛 MBIA Insured	7/13 at 100.00

20,975 Total Utilities

	Water and Sewer 🛛 23.3% (15.6% of Total Investments)	
1,700	Castaic Lake Water Agency, California, Revenue Certificates of Participation, Series 2004A,	8/14 at 100.00
	5.000%, 8/01/20 🛛 AMBAC Insured	
2,975	Chino Basin Regional Finance Authority, California, Sewerage System Revenue Bonds, Inland	8/06 at 100.00
	Empire Utilities Agency, Series 1994, 6.000%, 8/01/16 🛛 AMBAC Insured	
2,000	El Dorado Irrigation District, California, Water and Sewer Certificates of Participation,	3/14 at 100.00
	Series 2004A, 5.000%, 3/01/21 🛛 FGIC Insured	
460	Healdsburg Public Financing Authority, California, Wastewater Revenue Bonds, Series 2006,	4/16 at 100.00
	5.000%, 4/01/36 (WI/DD, Settling 6/06/06) 🛛 MBIA Insured	
2,700	Los Angeles County Sanitation Districts Financing Authority, California, Senior Revenue Bonds,	10/13 at 100.00