UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of

The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) February 27, 2006

GREATER BAY BANCORP

(Exact name of registrant as specified in its charter)

California 0-25034 77-0387041
(State or other jurisdiction (Commission (IRS Employer

1900 University Avenue, East Palo Alto, California

(Address of principal executive offices)

of incorporation)

94303 (Zip Code)

Identification No.)

Registrant s telephone number, including area code (650) 813-8200

File Number)

NA

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01 Regulation FD Disclosure.

Greater Bay Bancorp (the Company) has updated its investor slide presentation with information as of December 31, 2005. The slide presentation is furnished (not filed) as Exhibit 99.1 to this Current Report on Form 8-K pursuant to Regulation FD.

Item 8.01 Other Events.

On February 27, 2006, the Company issued a press release announcing that its President and Chief Executive Officer and Executive Vice President and Chief Financial Officer will participate in the Keefe Bruyette & Woods Regional Bank Conference on March 2, 2006 and discuss the slides included as Exhibit 99.1. The press release, included in this report as Exhibit 99.2, is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

- 99.1 Slide presentation of Greater Bay Bancorp as of December 31, 2005 (furnished pursuant to Regulation FD)
- 99.2 Press Release dated February 27, 2006 re conference participation

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

GREATER BAY BANCORP

Date: February 28, 2006 By: /s/ Linda M. Iannone

Linda M. Iannone

Senior Vice President, General Counsel and Secretary

Exhibit Index

- 99.1 Slide presentation of Greater Bay Bancorp as of December 31, 2005
- 99.2 Press Release dated February 27, 2006 re conference participation