

First Federal of Northern Michigan Bancorp, Inc.
 Form 4
 December 22, 2009

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

OMB APPROVAL
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 VANMASSENHOVE GARY C

2. Issuer Name and Ticker or Trading Symbol
 First Federal of Northern Michigan Bancorp, Inc. [FFNM]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)

(Last) (First) (Middle)
 100 SOUTH SECOND AVENUE
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 12/22/2009

Director 10% Owner
 Officer (give title below) Other (specify below)

ALPENA, MI 49707

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|--|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | Code | V | Amount (A) or (D) Price | | |
| Common Stock, par value \$0.01 per share | 12/22/2009 | | P | | 635 A \$ 1.27 | 2,427 | I By IRA1 |
| Common Stock, par value \$0.01 per share | 12/22/2009 | | P | | 765 A \$ 1.19 | 3,192 | I By IRA 1 |
| Common Stock, par value \$0.01 per share | | | | | | 3,789 | I By IRA2 |

| | | | |
|---|----------------------|---|------------------|
| Common Stock, par value \$0.01 per share | 7,769 ⁽¹⁾ | D | |
| Common Stock, par value \$0.01 per share | 1,250 | I | By Spouse IRA |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474
(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Pri Deriv Secur (Instr. | |
|---|--|---|---|--------------------------------------|--|--|---|-------------------------------------|--|
| | | | | Code | V (A) (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares |
| Stock Options | \$ 9.2 | | | | | 03/14/2007 | 03/14/2016 | Common Stock | 2,500 ⁽²⁾ |
| Stock Options | \$ 9.65 | | | | | 05/17/2007 | 05/17/2016 | Common Stock | 5,900 ⁽³⁾ |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| VANMASSENHOVE GARY C 100 SOUTH SECOND AVENUE ALPENA, MI 49707 | X | | | |

Signatures

/s/ Robert B. Pomerenk, Pursuant to Power of
Attorney

12/22/2009

__Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Includes shares of restricted stock that vest over a five year period, commencing on May 17, 2006, at the rate of 20% per year.
- (2) Represents stock options that vest over a five year period, commencing on March 14, 2006, at the rate of 20% per year.
- (3) Represents stock options that vest over a five year period, commencing on March 17, 2006, at the rate of 20% per year.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.