

First Federal of Northern Michigan Bancorp, Inc.
Form DEF 14A
April 16, 2010

SCHEDULE 14-A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12

First Federal of Northern Michigan Bancorp, Inc.
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.

\$125 per Exchange Act Rules 0-11(c)(1)(ii), 14a-6(i)(1), or 14a-6(j)(2).

\$500 per each party to the controversy pursuant to Exchange Act Rule 14a-6(i)(3).

Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

1) Title of each class of securities to which transaction applies:

.....

2) Aggregate number of securities to which transaction applies:

.....

3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11:

.....

4) Proposed maximum aggregate value of transaction:

.....

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

April 16, 2010

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of First Federal of Northern Michigan Bancorp, Inc. (the "Company"). The Annual Meeting will be held at the Thunder Bay National Marine Sanctuary, 500 W. Fletcher Street, Alpena, Michigan, at 1:00 p.m. Michigan time on May 19, 2010.

The enclosed Notice of Annual Meeting and proxy statement describe the formal business to be transacted. During the Annual Meeting we will also report on our operations. Our directors and officers will be present to respond to any questions that stockholders may have. Also enclosed for your review is our Annual Report to Stockholders, which contains detailed information concerning our activities and operating performance.

The Annual Meeting is being held so that stockholders will be given an opportunity to elect two directors and ratify the appointment of Plante & Moran, PLLC as our independent registered public accountants for the year ending December 31, 2010.

For the reasons set forth in the proxy statement, the Board of Directors unanimously recommends a vote "FOR" the election of each of the directors and "FOR" the ratification of the appointment of Plante & Moran, PLLC as our independent registered public accountants for the 2010 fiscal year.

On behalf of the Board of Directors, we urge you to sign, date and return the enclosed proxy card as soon as possible even if you currently plan to attend the Annual Meeting. Your vote is important, regardless of the number of shares that you own. Voting by proxy will not prevent you from voting in person, but will assure that your vote is counted if you are unable to attend the meeting.

Sincerely,

/s/ Michael W. Mahler

Michael W. Mahler
President and Chief Executive Officer

First Federal of Northern Michigan Bancorp, Inc.
100 South Second Avenue
Alpena, Michigan 49707
(989) 356-9041

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held On May 19, 2010

Notice is hereby given that the Annual Meeting of Stockholders (the "Meeting") of First Federal of Northern Michigan Bancorp, Inc. will be held at the Thunder Bay National Marine Sanctuary, 500 W. Fletcher Street, Alpena, Michigan, on May 19, 2010 at 1:00 p.m., Michigan time.

A proxy statement and proxy card for the Meeting are enclosed.

The Meeting is for the purpose of considering and acting upon:

1. The election of two directors of First Federal of Northern Michigan Bancorp, Inc.;
2. The ratification of the appointment of Plante & Moran, PLLC as our independent registered public accountants for the year ending December 31, 2010; and

such other matters as may properly come before the Meeting, or any adjournments thereof. The Board of Directors is not aware of any other business to come before the Meeting.

Any action may be taken on the foregoing proposals at the Meeting on the date specified above, or on any date or dates to which the Meeting may be adjourned. Stockholders of record at the close of business on March 12, 2010 are the stockholders entitled to vote at the Meeting, and any adjournments thereof.

EACH STOCKHOLDER, WHETHER HE OR SHE PLANS TO ATTEND THE MEETING, IS REQUESTED TO SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD WITHOUT DELAY IN THE ENCLOSED POSTAGE-PAID ENVELOPE. ANY PROXY GIVEN BY THE STOCKHOLDER MAY BE REVOKED AT ANY TIME BEFORE IT IS EXERCISED. A PROXY MAY BE REVOKED BY FILING WITH OUR SECRETARY A WRITTEN REVOCATION OR A DULY EXECUTED PROXY BEARING A LATER DATE. ANY STOCKHOLDER PRESENT AT THE MEETING MAY REVOKE HIS OR HER PROXY AND VOTE PERSONALLY ON EACH MATTER BROUGHT BEFORE THE MEETING. HOWEVER, IF YOU ARE A STOCKHOLDER WHOSE SHARES ARE NOT REGISTERED IN YOUR OWN NAME, YOU WILL NEED ADDITIONAL DOCUMENTATION FROM YOUR RECORD HOLDER IN ORDER TO VOTE PERSONALLY AT THE MEETING.

By Order of the Board of Directors

/s/ Amy E. Essex

Amy E. Essex
Chief Financial Officer, Treasurer and
Corporate Secretary

Alpena, Michigan

April 16, 2010

IMPORTANT: A SELF-ADDRESSED ENVELOPE IS ENCLOSED FOR YOUR CONVENIENCE. NO POSTAGE IS REQUIRED IF MAILED WITHIN THE UNITED STATES.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 19, 2010: THIS PROXY STATEMENT, INCLUDING THE NOTICE OF THE ANNUAL MEETING OF STOCKHOLDERS, AND FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.'S 2009 ANNUAL REPORT TO STOCKHOLDERS ON FORM 10-K ARE EACH AVAILABLE ON THE INTERNET AT WWW.CFPProxy.COM/5807.

PROXY STATEMENT

FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.

100 South Second Avenue

Alpena, Michigan 49707

(989) 356-9041

ANNUAL MEETING OF STOCKHOLDERS

MAY 19, 2010

This proxy statement is furnished in connection with the solicitation of proxies on behalf of the Board of Directors of First Federal of Northern Michigan Bancorp, Inc. to be used at our Annual Meeting of Stockholders (the "Meeting"), which will be held at the Thunder Bay National Marine Sanctuary, 500 W. Fletcher Street, Alpena, Michigan, on May 19, 2010 at 1:00 p.m., Michigan time, and all adjournments thereof. The accompanying Notice of Annual Meeting of Stockholders and this proxy statement are first being mailed to stockholders on or about April 16, 2010.

REVOCATION OF PROXIES

Stockholders who execute proxies in the form solicited hereby retain the right to revoke them in the manner described below. Unless so revoked, the shares represented by such proxies will be voted at the Meeting and all adjournments thereof. Proxies solicited on behalf of our Board of Directors will be voted in accordance with the directions given thereon. Please sign and return your proxy to our corporate secretary at First Federal of Northern Michigan Bancorp, Inc. in order for your vote to be counted. Where no instructions are indicated, signed proxies will be voted "FOR" the proposals set forth in this proxy statement for consideration at the Meeting.

A proxy may be revoked at any time prior to its exercise by sending written notice of revocation to our Secretary, Amy E. Essex, at our address shown above, or by filing a duly executed proxy bearing a later date or by voting in person at the Meeting. The presence at the Meeting of any stockholder who had given a proxy shall not revoke such proxy unless the stockholder delivers his or her ballot in person at the Meeting or delivers a written revocation to our Secretary prior to the voting of such proxy.

VOTING SECURITIES AND PRINCIPAL HOLDERS THEREOF

Except as otherwise noted below, holders of record of our common stock ("common stock") at the close of business on March 12, 2010 (the "Voting Record Date") are entitled to one vote for each share held. As of the Voting Record Date, there were 2,884,249 shares of common stock outstanding. The presence in person or by proxy of at least a majority of the outstanding shares of common stock entitled to vote is necessary to constitute a quorum at the Meeting.

In accordance with the provisions of our Articles of Incorporation, record holders of common stock who beneficially own in excess of 10% of the outstanding shares of common stock (the "Limit") are not entitled to any vote with respect to the shares held in excess of the Limit. Our Articles of Incorporation authorize the Board of Directors (i) to make all determinations necessary to implement and apply the Limit, including determining whether persons or entities are acting in concert, and (ii) to demand that any person who is reasonably believed to beneficially own stock in excess of

the Limit supply information to us to enable the Board of Directors to implement and apply the Limit.

Persons and groups who beneficially own in excess of five percent of our common stock are required to file certain reports with the Securities and Exchange Commission (the "SEC") regarding such ownership pursuant to the Exchange Act.

The following table sets forth the beneficial ownership of our common stock held by our directors and executive officers, individually and as a group, and all individuals known to management to own more than 5% of our common stock as of the Voting Record Date. The business address of each director and executive officer and of the First Federal of Northern Michigan Employee Stock Ownership Plan is 100 South Second Avenue, Alpena, Michigan 49707.

| Name of Beneficial Owner | Number of Shares of Common Stock Beneficially Owned (1) | Percent of All Common Stock Outstanding(13) |
|---|--|--|
| Five Percent Stockholders: | | |
| Investors of America Limited Partnership (2) 135 North Meramec Clayton, Missouri 63105 | 149,000 | 5.2 |
| Financial & Investment Management Group Ltd (3) 111 Cass Street Traverse City, Michigan 49684 | 278,974 | 9.7 |
| First Federal of Northern Michigan Employee Stock Ownership Plan | 182,570 | 6.3 |
| Directors and Executive Officers: | | |
| James C. Rapin | 30,942 (4) | 1.1 |
| Martin A. Thomson | 92,531 (5) | 3.2 |
| Thomas R. Townsend | 21,751 (6) | * |
| Gary C. VanMassenhove | 21,540 (7) | * |
| Keith D. Wallace | 30,173 (8) | * |
| Michael W. Mahler | 44,725 (9) | * |
| Amy E. Essex | 23,696 (10) | * |
| Jerome W. Tracey | 40,647 (11) | * |
| All directors and executive officers as a group (8 persons) | 306,005 (12) (13) | 10.6 % |

*

Less than 1%.

(1) In accordance with Rule 13d-3 under the Exchange Act, a person is deemed to be the beneficial owner for purposes of this table of any shares of common stock if he has sole or shared voting or investment power with respect to such security, or has a right to acquire beneficial ownership at any time within 60 days from the date as of which beneficial ownership is being determined. As used herein, "voting power" is the power to vote or direct the voting of shares and "investment power" is the power to dispose or direct the disposition of shares.

(2) Based on a Schedule 13G filed with the Securities and Exchange Commission on January 22, 2008.

(3) Based on a Schedule 13G filed with the Securities and Exchange Commission on February 23, 2010.

(4) Includes 5,540 shares that may be acquired pursuant to presently exercisable stock options.

(5) Includes 17,108 shares that may be acquired pursuant to presently exercisable stock options.

(6) Includes 5,540 shares that may be acquired pursuant to presently exercisable stock options.

- (7) Includes 5,540 shares that may be acquired pursuant to presently exercisable stock options.
- (8) Includes 5,540 shares that may be acquired pursuant to presently exercisable stock options.
- (9) Includes 13,040 shares that may be acquired pursuant to presently exercisable stock options.
- (10) Includes 9,074 shares that may be acquired pursuant to presently exercisable stock options.
- (11) Includes 10,922 shares that may be acquired pursuant to presently exercisable stock options.
- (12) Includes 70,508 shares held indirectly by executive officers in Bank-sponsored qualified retirement plans, which consists of 51,791 shares allocated to the accounts of executive officers under the 401(k) Plan and excludes the remaining 20,024 shares owned by the 401(k) Plan for the benefit of employees, and 18,717 shares allocated to the accounts of executive officers under the ESOP and excludes the remaining 163,853 shares owned by the ESOP for the benefit of employees. Under the terms of the 401(k) Plan and the ESOP, shares of common stock allocated to the accounts of employees are voted in accordance with the instructions of the respective employees. Unallocated shares in the ESOP are voted by the ESOP trustee in a manner calculated to most accurately reflect the instructions it has received from participants regarding the allocated shares, unless its fiduciary duty requires otherwise.
- (13) Includes 72,304 shares that may be acquired pursuant to presently exercisable stock options; calculation of percentage reflects the inclusion of such shares.

* Less than 1%

VOTING PROCEDURES AND METHOD OF COUNTING VOTES

As to the election of the directors, the proxy card provided by the Board of Directors enables a stockholder to vote “FOR” the election of the nominees proposed by the Board of Directors or to “WITHHOLD AUTHORITY” to vote for the nominees being proposed. Under Maryland law and our Articles of Incorporation and Bylaws, directors are elected by a plurality of the shares voted at the Meeting without regard to either broker non-votes or proxies as to which the authority to vote for the nominee is withheld. Plurality means that individuals who receive the largest number of votes cast are elected, up to the maximum number of directors to be elected at the Meeting.

As to the ratification of Plante & Moran, PLLC as our independent registered public accountants, by checking the appropriate box a stockholder may vote “FOR” the item, vote “AGAINST” the item or “ABSTAIN” from voting on the item. The ratification of independent registered public accountants must be approved by a majority of the shares voted at the Meeting without regard to broker non-votes or proxies marked “ABSTAIN.”

In the event at the time of the Meeting there are not sufficient votes for a quorum or to approve or ratify any matter being presented, the Meeting may be adjourned in order to permit the further solicitation of proxies.

Proxies solicited hereby will be returned to us and will be tabulated by the Internal Auditor of First Federal of Northern Michigan, the inspector of election designated by our Board of Directors.

PROPOSAL I—ELECTION OF DIRECTORS

Our Board of Directors is comprised of six persons, and is divided into three classes with one class of directors elected each year. Directors are generally elected to serve for a three-year period or until their respective successors shall have been elected and shall qualify. Our Nominating Committee, which is comprised of all of our independent directors, has nominated Keith D. Wallace and Michael W. Mahler to serve as directors for three-year terms. Messrs. Wallace and Mahler are currently members of the Board of Directors and have agreed to serve, if elected.

The table below sets forth certain information, as of the Voting Record Date, regarding the Board of Directors and executive officers. It is intended that the proxies solicited on behalf of the Board of Directors (other than proxies in which the vote is withheld as to the nominees) will be voted at the Meeting for the election of the nominees identified below. If a nominee is unable to serve, the shares represented by all such proxies will be voted for the election of such substitute as the Board of Directors may recommend. At this time, the Board of Directors knows of no reason why either of the nominees might be unable to serve, if elected. There are no arrangements or understandings between either of the nominees and any other person pursuant to which the nominees were selected.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE NOMINEES LISTED IN THIS PROXY STATEMENT.

| Name | Age | Positions Held | Director Since | Term Expires |
|-----------------------|-----|--|----------------|--------------|
| NOMINEES | | | | |
| Keith D. Wallace | 68 | Director | 1988 | 2010 |
| Michael W. Mahler | 46 | President and Chief Executive Officer and Director | 2008 | 2010 |
| DIRECTORS | | | | |
| James C. Rapin | 69 | Director | 1985 | 2011 |
| Martin A. Thomson | 61 | Chairman of the Board | 1986 | 2011 |
| Gary C. VanMassenhove | 63 | Director | 2001 | 2012 |
| Thomas R. Townsend | 58 | Director | 2002 | 2012 |
| EXECUTIVE OFFICERS | | | | |
| Amy E. Essex | 46 | Chief Financial Officer, Treasurer and Corporate Secretary | N/A | N/A |
| Jerome W. Tracey | 50 | Executive Vice President, Chief Lending Officer | N/A | N/A |

The business experience for the past five years of each of our directors and executive officers is set forth below. Unless otherwise indicated, directors and executive officers have held their positions for the past five years.

Directors

James C. Rapin was Chairman of the Board of Directors until his retirement as Chairman in May 2008. Mr. Rapin remains a director, and has been a director of First Federal of Northern Michigan since 1985. Mr. Rapin retired as a pharmacist with LeFave Pharmacy, Alpena, Michigan in 2004.

Martin A. Thomson was our Chief Executive Officer until his retirement from that position in May 2008. From 2001 until 2006, he was also our President. Upon his retirement as Chief Executive Officer, Mr. Thomson was appointed Chairman of the Board. Mr. Thomson previously held the position of President and Chief Executive Officer of Presque Isle Electric and Gas Cooperative, Inc., Onaway, Michigan. Mr. Thomson has been a director of First Federal of Northern Michigan since 1986.

Thomas R. Townsend is the President of R.A. Townsend Co., a plumbing, heating and air conditioning distributor located in Alpena, Michigan, where he has been employed for the past 33 years. Mr. Townsend has been a director since 2002.

Gary C. VanMassenhove is a partner in VanMassenhove, Kearly, Taphouse & Faulman, CPAs. Mr. VanMassenhove has been a Certified Public Accountant for 39 years. He has been a director since 2001.

Keith D. Wallace is the senior partner of the law firm of Isackson, Wallace and Pfeifer, P.C., located in Alpena, Michigan and local counsel to First Federal of Northern Michigan. Mr. Wallace has been a practicing attorney for 42 years. He has been a director since 1988.

Michael W. Mahler was appointed as a director and our Chief Executive Officer in May 2008. He had previously served as our President and Chief Operating Officer from January 2006. Prior to his appointment as President and Chief Operating Officer, Mr. Mahler was our Executive Vice President since November 2004. Prior to that appointment, since November 2002, Mr. Mahler was our Chief Financial Officer. Mr. Mahler was named as a director of the Bank in June 2007. From September 2000 until November 2002, Mr. Mahler was Corporate Controller at Besser Company, Alpena, Michigan, an international producer of concrete products equipment. From 1990 until 2000, Mr. Mahler was employed at LTV Steel Company, East Chicago, Indiana where he served in financial roles of increasing responsibility and served, from 1997 until 2000, as Controller for a northeast Michigan division.

Executive Officers Who Are Not Directors

Amy E. Essex was appointed as our Chief Financial Officer, Treasurer and Corporate Secretary in January 2006. Prior to this appointment, Ms. Essex was our Chief Financial Officer since November 2004. From March 2003 until November 2004, Ms. Essex was our Internal Auditor and Compliance Officer. Prior to March 2003, Ms. Essex spent eight years as the Director of Tax and Risk for Besser Company, Alpena, Michigan, an international producer of concrete products equipment. Ms. Essex is a certified public accountant.

Jerome W. Tracey was appointed as our Executive Vice President and Chief Lending Officer in January 2006. Prior to this appointment, Mr. Tracey was Senior Vice President, Senior Lender since September 2001. Prior to joining First Federal of Northern Michigan, Mr. Tracey served as Vice President of Commercial Lending for National City Bank, Alpena, Michigan, a position he held since 1996. Mr. Tracey has been in the banking profession since 1981.

Attributes / Skills of Directors

When considering whether directors and nominees have the experience, qualifications, attributes and skills, taken as a whole, to enable the Board of Directors to satisfy its oversight responsibilities effectively, the Nominating Committee and the Board of Directors focused primarily on the information included in each of the directors' individual biographies set forth above. The particular experience, qualifications, attributes or skills that led the Board of Directors to conclude that each person could serve as a director of the Company are summarized below.

Martin A. Thomson – Mr. Thomson has had extensive business experience with two successful small businesses in the Alpena community. He was the owner/operator of a building construction company for 20 years and a gas station/convenience store for 10 years. Mr. Thomson also served as President and Chief Executive Officer of a gas and electric utility for nine years, and served as the utility's board chairman for 16 years. He served for several years on the boards of associated national and state trade organizations. He also has served on numerous governmental and community boards and committees. At these enterprises and community organizations, Mr. Thomson was responsible for business development, strategic planning, and mergers and acquisitions, where he has drawn on his strong financial analysis, organizational modeling and strategic planning skills. This expertise has been valuable to the Company as it considers and evaluates its own strategic opportunities.

James C. Rapin – Mr. Rapin worked in the Alpena community for 47 years as a pharmacist until his retirement in 2004. As the former manager of this small business, Mr. Rapin provides the Board of Directors with considerable knowledge and expertise concerning the risks associated with lending to commercial companies and small businesses in the Alpena community. His long-time involvement with and business contacts in the Alpena business community also enables Mr. Rapin to refer business opportunities to the Company and helps the Company understand trends in the local economy.

Keith D. Wallace – Mr. Wallace has been an attorney in private practice successfully managing his law firm as an active, involved business entity serving the Alpena community and surrounding area for 42 years. He has also served as Alpena City Attorney for 39 years representing and advising the City on all aspects of legal and administrative affairs. His legal training and experience in the area of business transactions and all areas of real estate matters, including foreclosure actions, creditor protection issues, secured transactions and collection remedies, specifically has contributed to the Board and management in its consideration of legal, administrative and other issues affecting the Company.

Gary C. VanMassenhove – Mr. VanMassenhove is a CPA and partner with an Alpena-based public accounting firm, where he has a varied client base and has extensive experience in all phases of public accounting. Early in his career, Mr. VanMassenhove was employed by an international accounting firm, where he was responsible for the audits of

several corporations subject to the public company reporting requirements of the Securities Exchange Act of 1934. His skills and experience in this area are important to the Board, particularly in his service on the Audit Committee.

Thomas R. Townsend – Mr. Townsend is the President of a plumbing, heating and air conditioning distributor located in Alpena, Michigan, where he has been employed for the past 33 years. Mr. Townsend also

serves as vice-chair of the Board of Directors of Alpena Community College. His experiences in his corporate leadership role as well as his community service history bring a unique and insightful perspective to the Board.

Michael W. Mahler – Mr. Mahler has a background in the financial and operational aspects of several large companies. He has served as the Chief Financial Officer and Executive Vice-President of the Bank and the Company before assuming the role of President and Chief Executive Officer in 2008. He provides the Board of Directors with broad perspective on the Company’s strategies, challenges and opportunities as a result of his role as the Chief Executive Officer of the Company.

The Nominating Committee and the Board of Directors do not have a formal diversity policy in identifying nominees for director. However, in considering all of the attributes of an effective director in the context of existing members of the Board, the Committee and the Board do consider differences of viewpoint (including different viewpoints derived from diverse race, gender and national origin), professional experience, education and skills so as to achieve balance and heterogeneity in backgrounds and experiences on the Board.

Board Independence, Leadership Structure and Risk Oversight

The Board of Directors has determined that, except for Mr. Mahler, each member of the Board is an “independent director” within the meaning of the Nasdaq corporate governance listing standards. Mr. Mahler is not considered independent because he is a current executive officer.

In determining the independence of the directors, the Board of Directors reviewed and considered legal fees of approximately \$27,605 paid to the law firm of Isackson, Wallace and Pfeifer, P.C., of which Director Wallace is a senior partner, for legal work for First Federal of Northern Michigan.

In addition, the following loans by First Federal of Northern Michigan to directors were reviewed by the Board of Directors in determining the independence of directors. All such loans were made in the ordinary course of business on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with persons not related to First Federal of Northern Michigan Bancorp, Inc., and, in the judgment of management, did not involve more than the normal risk of collectibility or present other unfavorable features.

| Independent Director | Aggregate Amount Outstanding at December 31, 2009 |
|------------------------------|---|
| James C. Rapin | \$ 15,828 |
| Keith D. Wallace | \$ 104,902 |
| G a r y C . VanMassenhove | \$ 149,238 |
| T h o m a s R . Townsend | \$ 1,943,798 |

To assure effective and independent oversight of management, in 2002, the Board of Directors separated the roles of Chief Executive Officer and Chairman of the Board in recognition of the differences between these two roles in management of the Company. The Chief Executive Officer is responsible for setting the strategic direction for the Company and the day-to-day leadership and performance of the Company, while the Chairman of the Board provides guidance to the Chief Executive Officer, sets the agenda for Board meetings and presides over meetings of the full

Board. The Chairman of the Board is an independent, non-management role.

The Board of Directors has an active role, as a whole and also at the committee level, in overseeing management of the Company's risks. The Board regularly reviews reports from members of senior management on areas of material risk to the Company, including credit, financial, operational, liquidity, legal and regulatory risks. In reviewing the reports, the full Board, or the appropriate Committee in the case of risks that are under the purview of a particular Committee, discuss with the members of senior management responsible for the areas covered by the reports how risks have been identified and what strategies and procedures have been put in place to mitigate risks. When a Committee receives a report, the Chairman of the relevant Committee communicates the results of the report review to the full Board at the next Board meeting. This enables the Board and its Committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

References to our Website Address

References to our website address throughout this proxy statement and the accompanying materials are for informational purposes only, or to fulfill specific disclosure requirements of the Securities and Exchange Commission's rules or the listing standards of the Nasdaq Stock Market. These references are not intended to, and do not, incorporate the contents of our website by reference into this proxy statement or the accompanying materials.

Meetings and Committees of the Board of Directors

General. Our Board of Directors meets on a monthly basis and may hold additional special meetings.

During the year ended December 31, 2009, our Board of Directors held 14 regular meetings and two special meetings. No member of the Board or any committee thereof attended fewer than 75% of the aggregate of: (i) the total number of meetings of the Board of Directors (held during the period for which he has been a director); and (ii) the total number of meetings held by all committees of the board on which he served (during the periods that he served). Executive sessions of the independent directors are held on a regularly scheduled basis.

Our standing board committees include the Executive, Audit, Nominating and Compensation Committees. The Board of Directors appoints all committee members.

Executive Committee. The Executive Committee is authorized to act with the same authority as the Board of Directors between meetings of the Board, and is comprised of the full Board. The Executive Committee met three times during 2009.

Compensation Committee. The Compensation Committee meets periodically to review the performance of officers and to determine compensation of officers to be recommended to the Board. It is comprised of Messrs. Rapin, Townsend, VanMassenhove and Wallace, each of whom is considered independent as defined in the Nasdaq corporate governance listing standards. Our Board of Directors has adopted a written charter for the Compensation Committee, which is available on our website at www.first-federal.com. The Compensation Committee met one time in 2009.

The Compensation Committee reviews annually the compensation levels of the executive officers and the fee level of directors and recommends compensation and fee changes to the full Board of Directors. The Committee intends that executive compensation be structured so as to attract, develop and retain talented executive officers and directors who are capable of maximizing our performance for the benefit of our stockholders. The Committee also seeks to set compensation and fee levels that are competitive in the markets in which we operate.

As described immediately below, our compensation program is primarily comprised of two fundamental components: (1) base salary and (2) annual performance-based cash bonuses. In addition to these two primary elements, we have adopted a stock-based compensation plan, an employee stock ownership plan (ESOP) and Bank-wide retirement benefits.

Base Salary – Base salaries for all employees, including executive officers, are based on pay ranges that are first recommended by Clark Consulting and then approved by the Compensation Committee. Clark Consulting is an employee compensation consulting firm engaged by us at the recommendation of management and with the concurrence of the Compensation Committee. In general, these pay ranges are re-evaluated by the Committee every two years. However, they are also reviewed if a new job classification is added or if the responsibilities of a job classification are change substantially. Actual base salaries within those ranges are then established by the Compensation Committee after performance reviews by the Committee and consideration of management

recommendations for base salary levels. The Compensation Committee conducts a performance review of the President and Chief Executive Officer. The President and Chief Executive Officer, in turn, conducts the performance reviews of the Executive Vice President and the Chief Financial Officer. However, the Compensation Committee retains complete authority to establish base salaries, after such performance reviews and management recommendations.

Annual Cash Bonuses – All employees, including executive officers, are eligible to receive annual cash bonuses pursuant to our “Staff Incentive Plan” if the Bank meets a net after-tax income goal, which is established annually by the Board of Directors based on the recommendation of management. No executive officer received a bonus in 2009 because we did not meet our financial performance targets for the year.

Stock-Based Compensation – Our 2006 Stock-Based Incentive Plan, which was approved by our shareholders on May 17, 2006, permits the award of up to 173,386 stock options and 69,354 restricted shares of common stock. Individual awards of options and restricted stock to executive officers and directors, reported on elsewhere in this proxy statement, were established by the Committee based on the relative positions of the executive officers within our organization, as well as a review of awards made at similarly sized institutions.

Employee Stock Ownership Plan – We have established an employee stock ownership plan that covers substantially all employees who have completed one year of service, attained age 21, and worked at least 1,000 hours during the year. Shares of common stock are allocated annually to employees based on each employee’s relative compensation for each year.

Retirement Benefits – Like all employees, each executive officer is covered under our defined benefit retirement plan, which was frozen effective July 1, 2005. In addition, each executive officer is eligible to participate in our 401(k) plan.

We encourage directors, officers and employees to own shares of our common stock, as their means permit. However, we do not currently have any stock ownership guidelines for our executive officers or directors.

Nominating Committee. The Nominating Committee, which consists of Directors Rapin, Townsend, VanMassenhove and Wallace, nominates individuals for election as directors. Each member of the Nominating Committee is considered “independent” as defined in the Nasdaq corporate governance listing standards. Our Board of Directors has adopted a written charter for the Nominating Committee, which is available on our website at www.first-federal.com. The Committee met once during 2009.

The functions of the Nominating Committee include the following:

- to lead the search for individuals qualified to become members of the Board and to select director nominees to be presented for stockholder approval;
- to review and monitor compliance with the requirements for Board independence;
- to review the committee structure and make recommendations to the Board regarding committee membership;
- to develop and recommend to the Board for its approval a set of corporate governance guidelines; and
- to develop and recommend to the Board for its approval a self-evaluation process for the Board and its committees.

The Nominating Committee identifies nominees by first evaluating the current members of the Board of Directors willing to continue in service. Current members of the Board with skills and experience that are relevant to our business and who are willing to continue in service are first considered for re-nomination, balancing the value of continuity of service by existing members of the Board with that of obtaining a new perspective. If any member of the Board does not wish to continue in service, or if the Committee or the Board decides not to re-nominate a member for re-election, or if the size of the Board is increased, the Committee would solicit suggestions for director candidates from all Board members. In addition, the Committee is authorized by its charter to engage a third party to assist in the

identification of director nominees. The Nominating Committee would seek to identify a candidate who at a minimum satisfies the following criteria:

- has the highest personal and professional ethics and integrity;

- has had experiences and achievements that have given him or her the ability to exercise and develop good business judgment;
- is willing to devote the necessary time to the work of the Board and its committees, which includes being available for Board and committee meetings;
 - is familiar with the communities in which we operate and/or is actively engaged in community activities;
- is involved in other activities or interests that do not create a conflict with his or her responsibilities to the us and our stockholders; and
- has the capacity and desire to represent the balanced, best interests of our stockholders as a group, and not primarily a special interest group or constituency.

In addition, the Nominating Committee will determine whether a candidate satisfies the qualifications requirements of our Bylaws, which require any person appointed or elected to the Board of Directors to reside or work in a county in which First Federal of Northern Michigan maintains an office (at the time of appointment or election) or in a county contiguous to a county in which we maintain an office.

Finally, the Nominating Committee will take into account whether a candidate satisfies the criteria for “independence” under the Nasdaq corporate governance listing standards, and if a nominee is sought for service on the audit committee, the financial and accounting expertise of a candidate, including whether the individual qualifies as independent for audit committee standards under the federal securities rules and as an audit committee financial expert.

Procedures for the Nomination of Directors by Stockholders. The Nominating Committee has adopted procedures for the submission of director nominees by stockholders. There have been no material changes to these procedures since they were previously disclosed in the proxy statement for our last annual meeting of stockholders. If a determination is made that an additional candidate is needed for the Board, the Nominating Committee will consider candidates submitted by our stockholders. Stockholders can submit qualified names of candidates for director by writing to our Corporate Secretary at 100 South Second Avenue, Alpena, Michigan 49707. The Corporate Secretary must receive a submission not less than ninety (90) days prior to the anniversary date of our proxy materials for the preceding year’s annual meeting for a candidate to be considered for next year’s annual meeting of stockholders. The submission must include the following information:

- a statement that the writer is a stockholder and is proposing a candidate for consideration by the Nominating Committee;
 - the qualifications of the candidate and why the candidate is being proposed;
- the name and address of the stockholder as they appear on our books, and number of shares of our common stock that are owned beneficially by such stockholder (if the stockholder is not a holder of record, appropriate evidence of the stockholder’s ownership will be required);
- the name, address and contact information for the candidate, and the number of shares of our common stock that are owned by the candidate (if the candidate is not a holder of record, appropriate evidence of the stockholder’s ownership will be required);
 - a statement of the candidate’s business and educational experience;

- such other information regarding the candidate as would be required to be included in the proxy statement pursuant to SEC Rule 14A;

- a statement detailing any relationship between the candidate and us;

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- a statement detailing any relationship between the candidate and any of our customers, suppliers or competitors;
- detailed information about any relationship or understanding between the proposing stockholder and the candidate; and
- a statement that the candidate is willing to be considered and willing to serve as a director if nominated and elected.

Submissions that are received and that meet the criteria outlined above are forwarded to the Chairman of the Nominating Committee for further review and consideration. A nomination submitted by a stockholder for presentation by the stockholder at an annual meeting of stockholders must comply with the procedural and informational requirements described in this proxy statement under the heading "Stockholder Proposals." We did not receive any outside submissions for Board nominees for the Meeting.

Stockholder Communications with the Board. Any of our stockholders who wish to communicate with the Board or with any individual director may write to our Corporate Secretary, 100 South Second Avenue, Alpena, Michigan 49707, Attention: Board Administration. The letter should indicate that the author is a stockholder and if shares are not held of record, should include appropriate evidence of stock ownership. Depending on the subject matter, management will:

- forward the communication to the director or directors to whom it is addressed;
- attempt to handle the inquiry directly, for example where it is a request for information about us or a stock-related matter; or
- not forward the communication if it is primarily commercial in nature, relates to an improper or irrelevant topic, or is unduly hostile, threatening, illegal or otherwise inappropriate.

At each Board meeting, management will present a summary of all communications received since the last meeting that were not forwarded and make those communications available to the directors.

The Audit Committee. The Audit Committee reviews our records and affairs to determine our financial condition, reviews with management and the independent auditors the systems of internal control, and monitors adherence in accounting and financial reporting to accounting principles generally accepted in the United States of America. The Audit Committee consists of Directors Rapin, Townsend and VanMassenhove. Each member of the Audit Committee is considered "independent" as defined in the Nasdaq corporate governance listing standards and under SEC Rule 10A-3. The Board of Directors has determined that Gary C. VanMassenhove, a certified public accountant, qualifies as an "audit committee financial expert" as that term is defined by the rules and regulations of the SEC. The Audit Committee met four times during the year ended December 31, 2009. The Audit Committee reports to the Board on its activities and findings. The duties and responsibilities of the Audit Committee include, among other things:

- retaining, overseeing and evaluating a firm of independent certified public accountants to audit our annual financial statements;
- in consultation with the independent registered public accountants and the internal auditor, reviewing the integrity of our financial reporting processes, both internal and external;

- approving the scope of the audit in advance;

-

reviewing the financial statements and the audit report with management and the independent registered public accountants;

- considering whether the provision by the external independent registered public accountants of services not related to the annual audit and quarterly reviews is consistent with maintaining the independent registered public accounting firm's independence;
 - reviewing earnings and financial releases and quarterly reports filed with the SEC;
- consulting with the internal audit staff and reviewing management's administration of the system of internal accounting controls;
- approving all engagements for audit and non-audit services in excess of \$5,000 by the independent registered public accountants; and
 - reviewing the adequacy of the audit committee charter.

The Audit Committee operates under a written charter adopted by the Board of Directors which is available on our website at www.first-federal.com.

Audit Committee Report

Management has the primary responsibility for our internal controls and financial reporting processes. The independent registered public accountants are responsible for performing an independent audit of our consolidated financial statements in accordance with auditing standards generally accepted in the United States and issuing a report thereon. The Audit Committee's responsibility is to monitor and oversee these processes.

As part of its ongoing activities, the Audit Committee has:

- reviewed and discussed with management, and the independent registered public accountants, our audited consolidated financial statements for the year ended December 31, 2009;
- discussed with the independent registered public accountants the matters required to be discussed by Statement on Auditing Standards No. 61, as amended, Communications with Audit Committees, as amended; and
- received the written disclosures and the letter from the independent registered public accountants required by Independence Standards Board Standard No. 1, Independence Discussions with Audit Committees, and has discussed with the independent registered public accountants their independence.

Based on the review and discussions referred to above, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2009 and be filed with the SEC. In addition, the Audit Committee engaged Plante & Moran, PLLC as our independent registered public accountants for the year ending December 31, 2010, subject to the ratification of this appointment by our stockholders.

Plante & Moran, PLLC did not use the services of any persons other than its full-time permanent employees on its audit of our 2009 consolidated financial statements.

This report shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under such Acts.

The Audit Committee
James C. Rapin (Chairman)
Gary C. VanMassenhove
Thomas R. Townsend

Code of Ethics

We have adopted a Code of Ethics that is applicable to our officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Code of Ethics is available on our website at www.first-federal.com. Amendments to and waivers from the Code of Ethics will also be disclosed on our website. There were no such amendments or waivers in 2009.

Attendance at Annual Meetings of Stockholders

We do not have a policy regarding director attendance at annual meetings of stockholders, although directors are requested to attend these meetings absent unavoidable conflicts. All of our directors attended our 2009 annual meeting of stockholders.

Executive Compensation

The following table sets forth for the years ended December 31, 2009 and 2008 certain information as to the total remuneration paid by us to Michael W. Mahler, our President and Chief Executive Officer, and our two most highly compensated executive officers other than Mr. Mahler (the "Named Executive Officers"). For a narrative description of information included in this table, please see the discussion in this proxy statement under the heading "Benefit Plans."

SUMMARY COMPENSATION TABLE

| Name and principal position | Year | Salary (\$) | Bonus (\$) | Stock awards ¹ (\$) | Option awards ² (\$) | Non-qualified incentive plan compensation | | All other compensation (\$) | Total (\$) |
|--|------|-------------|------------|--------------------------------|---------------------------------|---|---------------|-----------------------------|------------|
| | | | | | | earnings (\$) | deferred (\$) | | |
| Michael W. Mahler President and Chief Executive Officer | 2009 | \$ 156,806 | \$ — | \$ 16,000 | \$ 10,436 | \$ — | \$ — | \$ 20,954 ³ | \$ 204,196 |
| | 2008 | 149,309 | — | 16,000 | 10,436 | — | — | 28,932 | 204,677 |
| Amy E. Essex Chief Financial Officer, Treasurer and Corporate Secretary | 2009 | 105,014 | — | 13,638 | 6,980 | — | — | 6,045 ⁴ | 131,677 |
| | 2008 | 105,014 | — | 13,638 | 6,980 | — | — | 10,288 | 135,920 |
| Jerome W. Tracey Executive Vice President and Chief Lending Officer | 2009 | 104,052 | — | 13,638 | 6,980 | — | — | 5,595 ⁵ | 130,265 |
| | 2008 | 104,052 | — | 13,638 | 6,980 | — | — | 9,023 | 133,693 |

¹ All stock awards to the Named Executive Officers were made on May 17, 2006 and were valued under SFAS 123R at the grant date market value of \$9.65 per share. The stock awards vest over five years commencing one year from the grant date.

² Option awards to the Named Executive Officers were made on March 14, 2006 and on May 17, 2006 and were valued at \$1.94 and \$2.15 per option, respectively, based upon the Black-Scholes valuation model using the following assumptions: (1) expected term of option, eight years; (2) annual volatility of common stock, 13.9%; (3)

expected dividend yield of common stock, 2.16%; and (4) risk-free interest rate, 4.70% and 5.08%, respectively, per annum. The options vest over five years commencing one year from the grant date.

3 Consists of \$12,100, \$400 and \$200, respectively, of director fees for service on the Board of Directors of First Federal of Northern Michigan, for service on the Board of First Federal Community Foundation, a foundation established and funded by First Federal of Northern Michigan and for service on the Board of Insurance Center of Alpena; a contribution of \$2,986 pursuant to our 401(k) plan; and \$5,268 relating to the value of issued ESOP shares. For the year ended December 31, 2009, Mr. Mahler did not receive perquisites or personal benefits that exceeded \$10,000.

4 Consists of \$400 of director fees for service on the FFCF, an affiliate of First Federal of Northern Michigan Bancorp, Inc.; a contribution of \$2,100 pursuant to our 401(k) plan; and \$3,545 relating to the value of issued ESOP shares. For the year ended December 31, 2009, Ms. Essex did not receive perquisites or personal benefits that exceeded \$10,000.

5 Consists of a contribution of \$2,081 pursuant to our 401(k) plan; and \$3,514 relating to the value of issued ESOP shares. For the year ended December 31, 2009, Mr. Tracey did not receive perquisites or personal benefits that exceeded \$10,000.

Outstanding Equity Awards at Year End. The following table sets forth information with respect to outstanding equity awards as of December 31, 2009 for the Named Executive Officers. All awards of common stock and options vest at a rate of 20% per year beginning on the first anniversary of the grants. The other terms of the awards are described in this proxy statement under the heading "Benefit Plans."

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2009

| Name | Option awards | | | | | Stock awards | | | Equity incentive plan awards: market or payout value of unearned shares, units or other rights that have not vested |
|--|---|---|---|----------------------------|------------------------|---|---|---|---|
| | Number of securities underlying unexercised options (#) exercisable | Number of securities underlying unexercised options (#) unexercisable | Equity incentive plan awards: number of securities underlying unexercised options (#) | Option exercise price (\$) | Option expiration date | Number of shares or units of stock that have not vested (#) | Market value of shares or units of stock that have not vested1 (\$) | Equity incentive plan awards: number of unearned shares, units or other rights that have not vested | |
| Michael W. Mahler President and Chief Executive Officer | | | | | | | | N/A | N/A |
| March 14, 2006 Options | 2,000 | 500 | | \$ 9.20 | March 14, 2016 | | | | |
| May 17, 2006 Options | 11,040 | 7,360 | | \$ 9.65 | May 17, 2016 | | | | |
| May 17, 2006 Share Awards | | | | | | 3,320 | \$ 4,050 | | |
| Amy E. Essex Chief Financial Officer | | | | | | | | N/A | N/A |
| March 14, 2006 Options | 2,000 | 500 | | \$ 9.20 | March 14, 2016 | | \$ 3,453 | | |
| May 17, 2006 Options | 7,074 | 4,716 | | \$ 9.65 | May 17, 2016 | 2,830 | | | |

May 17, 2006
Share Awards

Jerome W.
Tracey
Executive Vice
President
and Chief
Lending Officer

| | | | | | | | | | |
|----------------|-------|-------|---------|-----------|--|-------|----|-------|-----|
| March 27, 2002 | 1,848 | | \$ 7.44 | March 27, | | | | N/A | N/A |
| Options | 2,000 | 500 | 9.20 | 2012 | | | | | |
| March 14, 2006 | 7,074 | 4,716 | 9.65 | March 14, | | | | | |
| Options | | | | 2016 | | | | | |
| May 17, 2006 | | | | May 17, | | | | | |
| Options | | | | 2016 | | | | | |
| May 17, 2006 | | | | | | | | | |
| Share Awards | | | | | | 2,830 | \$ | 3,453 | |

¹The amounts in this column are based on the fair market value of our common stock on December 31, 2008 of \$1.25.

Benefit Plans

Defined Benefit Plan. First Federal of Northern Michigan maintains a noncontributory defined benefit plan (the “Retirement Plan”). All employees age 21 or older, who have worked at First Federal of Northern Michigan for a period of one year and have been credited with 1,000 or more hours of employment with the Bank during the year, are eligible to accrue benefits under the Retirement Plan. The Bank annually contributes an amount to the Retirement Plan necessary to satisfy the actuarially determined minimum funding requirements in accordance with the Employment Retirement Income Security Act of 1974, as amended (“ERISA”).

At the normal retirement age of 65, the Retirement Plan is designed to provide a life annuity. The retirement benefit provided is an amount equal to 2.5% of a participant’s average salary based on the average of the five consecutive years during the participant’s years of employment that provide the highest average annual salary multiplied by the participant’s years of credited service to the normal retirement date. Retirement benefits are also payable upon retirement due to early and late retirement. Benefits are also paid from the Retirement Plan upon a participant’s disability or death. A reduced benefit is payable upon early retirement at or after age 55. Upon termination of employment other than as specified above, a participant who was employed by the Bank for a minimum of five years is eligible to receive his or her accrued benefit reduced for early retirement or a deferred retirement benefit commencing on such participant’s normal retirement date. Benefits are payable in various annuity forms as well as in the form of a single lump sum payment. For the year ended December 31, 2009, the Bank made contributions to the Retirement Plan of \$36,214.

In 2004, the Board amended the Retirement Plan and set a 20-year limitation as the maximum number of employment years an employee is entitled to under the Retirement Plan. In April 2005, the Board froze the Retirement Plan as to current participants and excluded from the Retirement Plan new employees hired after July 1, 2004.

The following table indicates the annual retirement benefit that would be payable under the Retirement Plan upon retirement at age 65 in plan year 2009, expressed in the form of a single life annuity for the final average salary and benefit service classification specified below. As of December 31, 2009, Messrs. Thomson, Mahler and Tracey and Ms. Essex had four years, three years, six years and two years credited service (i.e., benefit service) with the Bank, respectively.

| High 5-Year Average Salary | 10 | 15 | 20 |
|-------------------------------------|----------|----------|----------|
| \$15,000 | \$3,750 | \$5,625 | \$7,500 |
| \$25,000 | \$6,250 | \$9,375 | \$12,500 |
| \$50,000 | \$12,500 | \$18,750 | \$25,000 |
| \$100,000 | \$25,000 | \$37,500 | \$50,000 |
| \$150,000 | \$37,500 | \$56,250 | \$75,000 |

Employee Stock Ownership Plan and Trust. The Bank has an employee stock ownership plan (“ESOP”) and related trust for eligible employees. The ESOP purchased 138,709 shares of our common stock in our offering that was completed in April 2005. The ESOP obtained a loan from us to purchase these shares. The ESOP loan amortizes over a 15-year period, but the ESOP is entitled to pay off the loan at any time without incurring a penalty. Collateral for the loan is the common stock purchased by the ESOP. The loan was paid in full effective as of December 31, 2009.

The ESOP is a tax-qualified plan subject to the requirements of ERISA and the Internal Revenue Code of 1986 (the "Code"). Employees with a 12-month period of employment with the Bank during which they worked at least 1,000 hours and who have attained age 21 are eligible to participate.

Contributions to the ESOP and shares released from the suspense account in an amount proportional to the repayment of the ESOP loan are allocated among participants on the basis of compensation in the year of allocation, up to an annual adjusted maximum level of compensation. Benefits generally become 100% vested after five years of credited service. Forfeitures will be reallocated among remaining participating employees in the same proportion

as contributions. Benefits are payable upon death, retirement, early retirement, disability or separation from service. The Bank's contributions to the ESOP are not fixed, so benefits payable under the ESOP cannot be estimated.

The Bank's Board of Directors administers the ESOP. The Bank has appointed First Bankers Trust Company, Quincy, Illinois to serve as trustee of the ESOP. The ESOP Committee may instruct the trustee regarding investment of funds contributed to the ESOP. The ESOP trustee, subject to its fiduciary duty, must vote all allocated shares held in the ESOP in accordance with the instructions of participating employees. Under the ESOP, nondirected shares will be voted in a manner calculated to most accurately reflect the instructions it has received from participants regarding the allocated stock so long as such vote is in accordance with the provisions of ERISA. At December 31, 2009, there were no unallocated shares held in the ESOP.

401(k) Plan. First Federal of Northern Michigan maintains a 401(k) Plan for our employees. The Plan is tax-qualified and permits participants to elect to defer up to 50% of the participant's eligible annual compensation into the Plan. Until 2004, the Bank made matching contributions of 50% of the participant's contribution, with the match being up to 3% of the participant's eligible annual compensation for the year. In July 2005, at the time we froze the Defined Benefit Plan, as described above, we modified the matching schedule to be 100% on the first 2% of contributions and 50% on the next 2% of contributions. The vesting schedule for matching contributions is 20% per year of service over a five-year period. Effective January 1, 2009, the Company suspended the matching contributions until further notice. Forfeitures of discretionary contributions are used to reduce our contributions in succeeding plan years. In connection with our 2005 stock offering, the 401(k) Plan was amended to permit participants to direct the investment of their 401(k) Plan account balances. Participants are permitted to invest their account balances in shares of our common stock through an employer stock fund that has been established in the Plan.

2006 Stock-Based Incentive Plan. In May 2006, our stockholders approved the 2006 First Federal of Northern Michigan Bancorp, Inc. Stock-Based Incentive Plan (the "Incentive Plan") to provide our officers, employees and directors with additional incentives to promote our growth and performance. The Incentive Plan will remain in effect for a period of ten years following adoption by stockholders.

The Incentive Plan authorizes the issuance of up to 242,740 shares of our common stock pursuant to grants of incentive and non-statutory stock options, reload options, stock appreciation rights and restricted stock awards, provided that no more than 69,354 shares may be issued as restricted stock awards, and no more than 173,386 shares may be issued pursuant to the exercise of stock options. The Incentive Plan is administered by a committee (the "Committee") appointed by the Chairman of the Board of Directors, which includes two or more of our disinterested directors who are "non-employee directors," as that term is defined for purposes of Rule 16b under the Securities Exchange Act of 1934. The Incentive Plan also permits the Board of Directors or the Committee to delegate to one or more of our officers the Committee's power to (i) designate officers and employees who will receive awards, and (ii) determine the number of awards to be received by them.

Our employees and outside directors are eligible to receive awards under the Incentive Plan. Awards may be granted in a combination of incentive and non-statutory stock options, stock appreciation rights or restricted stock awards. The exercise price of options granted under the plan may not be less than the fair market value on the date the stock option is granted. Stock options are either "incentive" stock options or "non-qualified" stock options. Stock options are subject to vesting conditions and restrictions as determined by the Committee.

The Compensation Committee of the Board of Directors approved awards under the Incentive Plan on May 17, 2006. All awards of common stock and options on common stock reported in the Summary Compensation Table and the Directors' Compensation Table reflect a five-year vesting schedule (20% per year). Pursuant to the awards, all awardees are entitled to cash dividends on common stock awards, whether such awards are vested or not. Apart from the vesting schedule, there are no performance-based conditions or any other material conditions applicable to the

awards made on May 17, 2006. The cash dividend on common stock was suspended effective for the quarter ended December 31, 2008.

Stock appreciation rights may be granted in tandem with stock options and give the recipient the right to receive a payment in our common stock of an amount equal to the excess of the fair market value of a specified number of shares of our common stock on the date of the exercise of the stock appreciation rights over the fair market value of the common stock on the date of grant of the stock appreciation right, as set forth in the recipient's

award agreement. Stock appreciation rights will not be granted unless (i) the stock appreciation right is settled solely in our common stock; and (ii) there is no further ability to defer the income received on the exercise of the stock appreciation right. The grant of awards on May 17, 2006 included stock appreciation rights.

Stock awards under the Incentive Plan will be granted only in whole shares of common stock. Stock awards will be subject to conditions established by the Committee that are set forth in the award agreement. Any stock award granted under the Incentive Plan will be subject to vesting as determined by the Committee.

Upon the occurrence of an event constituting a change in control of First Federal of Northern Michigan Bancorp, Inc., as defined in the Incentive Plan, all stock options will become fully vested, and all stock awards then outstanding will vest free of restrictions.

1996 Stock Option Plan. Certain of our employees and non-employee directors are eligible to participate in our 1996 Stock Option Plan (the "1996 Option Plan"). The 1996 Option Plan authorizes the grant of stock options and limited rights to purchase 69,000 shares (10% of the shares of common stock issued to minority stockholders in our initial 1994 public offering). Upon the closing of our 2005 stock offering, the shares of common stock subject to the 1996 Option Plan were adjusted pursuant to the exchange ratio. Pursuant to the 1996 Option Plan, grants may be made of (i) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code, (ii) options that do not so qualify ("non-statutory options") and (iii) limited rights (described below) that are exercisable only upon a change in control of the Bank or the Company.

The 1996 Option Plan is administered by a committee consisting of certain non-employee directors of the Board of Directors (the "Committee"). In granting options, the Committee considers factors such as salary, length of employment with us, and the employee's overall performance. All stock options are exercisable in five equal annual installments of 20% commencing one year from the date of grant; provided, however, that all options will be 100% exercisable in the event the optionee terminates his service due to normal retirement, death or disability, or in the event of a change in control of the Company or the Bank. Options must be exercised within 10 years from the date of grant. Stock options may be exercised up to one year following termination of service or such later period as determined by the Committee. The exercise price of the options will be at least 100% of the fair market value of the underlying common stock at the time of the grant. The exercise price may be paid in cash or common stock.

Incentive stock options will only be granted to our employees. Non-employee directors will be granted non-statutory stock options. No incentive stock option granted in connection with the 1996 Option Plan may be exercisable more than three months after the date on which the optionee ceases to perform services for us, except that in the event of death, disability, normal retirement, or a change in control of the Bank or the Company, incentive stock options may be exercisable for up to one year; provided, however, that if an optionee ceases to perform services for us due to retirement or following a change in control (as defined in the 1996 Option Plan), any incentive stock options exercised more than three months following the date the optionee ceases to perform services shall be treated as a non-statutory stock option as described above.

Upon the exercise of "limited rights" in the event of a change in control, the optionee will be entitled to receive a lump sum cash payment, or in certain cases, common stock, equal to the difference between the exercise price of the option and the fair market value of the shares of common stock subject to the option on the date of exercise of the right in lieu of purchasing the stock underlying the option. In the event of death or disability, if requested by the optionee or beneficiary, we may elect, in exchange for the option, to pay the optionee, or beneficiary in the event of death, the amount by which the fair market value of the common stock exceeds the exercise price of the option on the date of the optionee's termination of service for death or disability.

Pursuant to the 1996 Option Plan, non-employee directors at the inception of the Plan on April 17, 1996, Messrs. Rapin, Thomson, and Wallace, were each granted options to purchase 6,037 shares of common stock. These options were granted at an exercise price of \$10.00 per share and have all been vested. The number of options and the exercise price of the options were converted pursuant to the 1.8477-for-1 stock split effective as of the close of business on April 1, 2005 in connection with the closing of the mutual-to-stock conversion of Alpena Bancshares, M.H.C. There were no options granted under this Plan in 2009.

1996 Recognition and Retention Plan. Certain of our employees and non-employee directors are eligible to participate in our 1996 Recognition and Retention Plan (the “Recognition Plan”). A Committee of the Board of Directors composed of “disinterested” directors (the “Recognition Plan Committee”) administers the Recognition Plan and makes awards to executive officers and employees. Participants in the Recognition Plan earn (become vested in) shares of Restricted Stock covered by an award and all restrictions lapse over a period of time commencing from the date of the award; provided, however, that the Recognition Plan Committee may accelerate or extend the earnings rate on any awards made to officers and employees under the Recognition Plan. Awards to non-employee directors vest at the rate of 20% of the amount initially awarded commencing one year from the date of the award. Awards to executive officers and employees become fully vested upon termination of employment or service due to death, disability or normal retirement or following a termination of employment or service in connection with a change in the control of the Bank or the Company. Upon termination of employment or service for another reason, unvested shares are forfeited.

At the inception of the Recognition and Retention Plan in 1996, non-employee directors Rapin, Thomson, and Wallace were each granted 2,415 shares of common stock, which shares have been earned and issued. Messrs. VanMassenhove and Townsend, who were appointed to the Board of Directors in September 2001 and April 2002, respectively, have not been awarded any shares under the Recognition and Retention Plan. Awards to non-employee directors fully vest upon a non-employee director’s disability, death, normal retirement, or following termination of service in connection with a change in control of the Bank or the Company. Unvested shares of Restricted Stock will be forfeited by a non-employee director upon failure to seek reelection, failure to be reelected, or resignation from the Board (other than in connection with normal retirement, as defined by the Recognition Plan).

Change in Control Agreement. The Bank has entered into a change in control agreement with Michael W. Mahler, President and Chief Executive Officer, which provide certain benefits in the event of a change in control of the Bank or the Company. The change in control agreement provides for a term of up to 36 months. Commencing on each anniversary date, the Board of Directors may extend the change in control agreement for an additional year. The change in control agreement enables us to offer to designated officers certain protections against termination without cause in the event of a change in control (as defined in the agreement). These protections against termination without cause in the event of a change in control are frequently offered by other financial institutions, and we may be at a competitive disadvantage in attracting and retaining key employees if we do not offer similar protections.

Following a change in control of the Company or the Bank, an officer is entitled to a payment under the change in control agreement if the officer’s employment is involuntarily terminated during the term of such agreement, other than for cause, as defined, death or disability. Involuntary termination includes the officer’s termination of employment during the term of the agreement and following a change in control as the result of a demotion, loss of title, office or significant authority, reduction in the officer’s annual compensation or benefits, or relocation of the officer’s principal place of employment by more than 25 miles from its location immediately prior to the change in control. In addition, for the first 12 months following a change in control, if we (or our successor) fail to renew the change in control agreement, the executive can voluntarily resign and receive the severance payment. In the event that an officer who is a party to a change in control agreement is entitled to receive payments pursuant to the change in control agreement, the officer will receive a cash payment of up to a maximum of two times the sum of base salary and highest rate of bonuses awarded to the officer over the prior three years, subject to applicable withholding taxes. Under the change in control agreement, Mr. Mahler would receive \$313,612 upon a change in control, based upon current levels of compensation. In addition to the severance payment, the officer is entitled to receive life, medical and dental coverage for a period of up to 24 months from the date of termination, as well as a lump-sum payment equal to the excess, if any, of (a) the present value of benefits to which the officer would be entitled under our defined benefit plan if the officer had the additional years of service that he would have had if he had continued working for us for 24 months following his termination, over (b) the present value of the benefits to which the officer is actually entitled under our defined benefit plan as of the date of his termination. Notwithstanding any provision to the contrary in the change in

control agreement, payments under the change in control agreement are limited so that they will not constitute an excess parachute payment under Section 280G of the Internal Revenue Code.

Equity Compensation Plan Disclosure

Set forth below is information as of December 31, 2009 regarding compensation plans under which equity securities of First Federal of Northern Michigan Bancorp, Inc. are authorized for issuance:

| Plan | Number of Securities to be Issued upon Exercise of Outstanding Options and Rights | Weighted Average Exercise Price | Number of Securities Remaining Available for Issuance under Plan |
|--|---|------------------------------------|---|
| Equity compensation plans approved by stockholders | 188,132 | \$ 9.47 | 56,000 |
| Equity compensation plans not approved by stockholders | — | — | — |
| Total | 188,132 | \$ 9.47 | 56,000 |

Directors' Compensation

The following table sets forth for the year ended December 31, 2009 certain information as to the total remuneration we paid to our directors other than Mr. Mahler. Compensation paid to Mr. Mahler for his services as Director is included in "Executive Compensation—Summary Compensation Table."

DIRECTOR COMPENSATION TABLE FOR THE YEAR ENDED DECEMBER 31, 2009

| Name | Fees earned or paid in cash (\$) | Stock awards (\$)(1) | Option awards (\$)(2) | Non-equity Nonqualified | | All other compensation (\$) | Total (\$) |
|--------------------------|---|----------------------------|-----------------------------|---|------------------------------|-----------------------------------|------------|
| | | | | incentive plan compensation (\$) | deferred earnings (\$) | | |
| James C. Rapin | \$ 13,300 | \$ 7,913 | \$ 3,443 | \$ | N/A | \$ 200 | \$24,856 |
| Martin A. Thomson | \$ 14,050 | \$ 17,081 | \$ 10,656 | \$ | N/A | \$ 200 | \$41,987 |
| Thomas R. Townsend | \$ 13,300 | \$ 7,913 | \$ 3,443 | \$ | N/A | \$ — | \$24,656 |
| Gary C. VanMassenhove | \$ 13,300 | \$ 7,913 | \$ 3,443 | \$ | N/A | \$ 400 | \$25,056 |
| Keith D. Wallace | \$ 12,100 | \$ 7,913 | \$ 3,443 | \$ | N/A | \$ — | \$23,456 |

(1) At December 31, 2009, each director owned 4,100 shares of restricted stock.

(2) At December 31, 2009, each director owned 8,400 options to purchase common stock with the exception of Martin A. Thomson who owned 26,448 options to purchase common stock.

Directors' Fees. Each of the individuals who currently serves as one of our directors also serves as a director of First Federal of Northern Michigan and earns director and committee fees in that capacity.

In 2009, each director of the Bank received a \$700 monthly meeting fee, payable only if the director attended the meeting. Each director is paid for one excused absence. The Chairman of the Board received \$850 for each regular meeting attended, and each director received \$700 for each special Board meeting attended.

In addition to the foregoing, during 2009, Messrs. Rapin, Thomson, Wallace, VanMassenhove, Townsend and Mahler received \$2,100, \$900, \$900, \$2,100, \$2,100 and \$900, respectively, for their services as members of the Bank's Executive and Audit Committees.

First Federal of Northern Michigan paid a total of \$78,150 in director and committee fees to members of the Board of Directors during the year ended December 31, 2009.

Transactions with Certain Related Persons

In the ordinary course of business, First Federal of Northern Michigan makes loans available to its directors, officers and employees. These loans are made in the ordinary course of business on substantially the same terms, including interest rate and collateral, as comparable loans to other borrowers. Loans made to directors or executive officers, including any modification of such loans, must be approved by a majority of disinterested members of the Board of Directors. Management believes that these loans neither involve more than the normal risk of collectibility nor present other unfavorable features.

Section 402 of the Sarbanes-Oxley Act of 2002 generally prohibits an issuer from: (1) extending or maintaining credit; (2) arranging for the extension of credit; or (3) renewing an extension of credit in the form of a personal loan for an officer or director. There are several exceptions to this general prohibition, one of which is applicable to us. Sarbanes-Oxley does not apply to loans made by a depository institution that is insured by the Federal Deposit Insurance Corporation and is subject to the insider lending restrictions of the Federal Reserve Act. All loans to our directors and officers are made in conformity with the Federal Reserve Act and applicable regulations.

Section 16(a) Beneficial Ownership Reporting Compliance

Our common stock is registered with the SEC pursuant to Section 12(g) of the Exchange Act. Our officers and directors and beneficial owners of greater than 10% of our common stock ("10% beneficial owners") are required to file reports on Forms 3, 4, and 5 with the SEC disclosing beneficial ownership and changes in beneficial ownership of the common stock. SEC rules require disclosure in our Proxy Statement or Annual Report on Form 10-KSB of the failure of an officer, director, or 10% beneficial owner of our common stock to file a Form 3, 4, or 5 on a timely basis. Based on our review of such ownership reports, no officer, director or 10% beneficial owner of our common stock failed to file such ownership reports on a timely basis for the year ended December 31, 2009. CONFIRM

In accordance with the listing standards of the Nasdaq Stock Market, any new transactions that would be required to be reported under this section of this proxy statement must be approved by our audit committee or another independent body of the board of directors.

PROPOSAL II—RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTANTS

Our independent registered public accountants for the year ended December 31, 2009 were Plante & Moran, PLLC. The Audit Committee has engaged Plante & Moran, PLLC to be the our independent registered public accountants for the 2010 fiscal year, subject to the ratification of the engagement by our stockholders. At the Meeting, stockholders will consider and vote on the ratification of the engagement of Plante & Moran, PLLC for the year ending December 31, 2010. A representative of Plante & Moran, PLLC is expected to attend the Meeting to respond to appropriate questions and to make a statement if he so desires.

Stockholder ratification of the selection of Plante & Moran, PLLC is not required by our bylaws or otherwise. However, the Board of Directors is submitting the selection of the independent registered public accountants to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection of Plante & Moran, PLLC, the Audit Committee will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent accounting firm at any time during the year if it determines that such change is in our best interests of our stockholders.

Fees Paid to Plante & Moran, PLLC

Set forth below is certain information concerning aggregate fees billed for professional services rendered by Plante & Moran, PLLC during 2009 and 2008:

Audit Fees. The aggregate fees billed to us by Plante & Moran, PLLC for professional services rendered by Plante & Moran, PLLC for the audit of our annual financial statements, review of the financial statements included in our Quarterly Reports on Form 10-Q and services that are normally provided by Plante & Moran, PLLC in connection with statutory and regulatory filings and engagements were \$85,150 and \$101,836 during the years ended December 31, 2009 and 2008, respectively.

Audit-Related Fees. The aggregate fees billed to us by Plante & Moran, PLLC for assurance and related services rendered by Plante & Moran, PLLC that are reasonably related to the performance of the audit of and review of the financial statements and that are not already reported in "Audit Fees," above, were \$5,500 and \$1,900 during the years ended December 31, 2009 and 2008, respectively.

Benefit Plan Audits. The aggregate fees billed to us by Plante & Moran, PLLC for audit services related to our employee benefit plans and that are not already reported in "Audit Fees," above, were \$30,800 and \$0 during the years ended December 31, 2009 and 2008, respectively.

Tax Fees. The aggregate fees billed to us by Plante & Moran, PLLC for professional services rendered by Plante & Moran, PLLC for tax compliance, tax advice and tax planning were \$8,800 and \$8,000 during the years ended December 31, 2009 and 2008, respectively.

All Other Fees. The aggregate fees billed to us by Plante & Moran, PLLC that are not described above were \$7,900 and \$0 and during the years ended December 31, 2009 and 2008, respectively.

The Audit Committee has considered whether the provision of non-audit services is compatible with maintaining Plante & Moran, PLLC's independence. The Audit Committee concluded that performing such services does not affect Plante & Moran, PLLC's independence in performing its function as our auditor.

Policy on Audit Committee Pre-Approval of Audit and Non-Audit Services of Independent Auditor

The Audit Committee's policy is to pre-approve all audit and non-audit services in excess of \$5,000 provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to particular service or category of services and is generally subject to a specific budget. The Audit Committee has delegated pre-approval authority to its Chairman when expedition of services is necessary. The independent auditors and management are required to periodically report to the full Audit Committee regarding the extent of services provided by the independent auditors in accordance with this pre-approval, and the fees for the services performed to date. For 2009, all services were pre-approved by the Audit Committee.

Required Vote and Recommendation of the Board of Directors.

In order to ratify the selection of Plante & Moran, PLLC as independent auditors for the 2010 fiscal year, the proposal must receive the affirmative vote of at least a majority of the votes cast at the Annual Meeting, either in person or by proxy, without regard to broker non-votes or proxies marked abstain.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR"
THE RATIFICATION OF PLANTE & MORAN, PLLC AS INDEPENDENT AUDITORS

STOCKHOLDER PROPOSALS

In order to be eligible for inclusion in our proxy materials for next year's Annual Meeting of Stockholders, any stockholder proposal to take action at such meeting must be received at our executive office, 100 South Second Avenue, Alpena, Michigan 49707, no later than December 17, 2010. Nothing in this paragraph shall be deemed to require First Federal of Northern Michigan Bancorp, Inc. to include in its proxy statement and proxy relating to an annual meeting any stockholder proposal that does not meet all of the requirements for inclusion established by the Securities and Exchange Commission.

OTHER MATTERS AND ADVANCE NOTICE PROCEDURES

The Board of Directors is not aware of any business to come before the Annual Meeting other than the matters described above in this proxy statement. However, if any matters should properly come before the Annual Meeting, it is intended that holders of the proxies will act as directed by a majority of the Board of Directors, except for matters related to the conduct of the Annual Meeting, as to which they shall act in accordance with their best judgment. The Board of Directors intends to exercise its discretionary authority to the fullest extent permitted under the Exchange Act.

Our bylaws provide an advance notice procedure for certain business, or nominations to the Board of Directors, to be brought before an annual meeting of stockholders. In order for a stockholder to properly bring business before an annual meeting, or to propose a nominee to the Board of Directors, the stockholder must give written notice to our Secretary not less than ninety (90) days prior to the date of our proxy materials for the preceding year's annual meeting; provided, however, that if the date of the annual meeting is advanced more than twenty (20) days prior to or delayed by more than sixty (60) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be received not earlier than the close of business on the 120th day prior to the date of such annual meeting and not later than the close of business on the later of (A) the 90th day prior to the date of such annual meeting or (B) the tenth day following the first to occur of (i) the day on which notice of the date of the annual meeting was mailed or otherwise transmitted or (ii) the day on which we first made public announcement of the date of the annual meeting. The notice must include the stockholder's name, record address, and number of shares owned, describe briefly the proposed business, the reasons for bringing the business before the annual meeting, and any material interest of the stockholder in the proposed business. In the case of nominations to the Board of Directors, certain information regarding the nominee must be provided. Nothing in this paragraph shall be deemed to require us to include in our proxy statement and proxy relating to an annual meeting any stockholder proposal that does not meet all of the requirements for inclusion established by the Securities and Exchange Commission in effect at the time such proposal is received.

The date on which the next Annual Meeting of Stockholders of First Federal of Northern Michigan Bancorp, Inc. is expected to be held is May 18, 2011. Accordingly, advance written notice of business or nominations to the Board of Directors to be brought before next year's Annual Meeting of Stockholders must be given to First Federal of Northern Michigan Bancorp, Inc. no later than January 16, 2011. If notice is received after January 16, 2011, it will be considered untimely, and First Federal of Northern Michigan Bancorp, Inc. will not be required to present the matter

at the meeting.

MISCELLANEOUS

We will bear the cost of solicitation of proxies. We will reimburse brokerage firms and other custodians, nominees and fiduciaries for reasonable expenses incurred by them in sending proxy materials to the beneficial owners of our common stock. In addition to solicitations by mail, directors, officers, and our regular employees may solicit proxies personally or by telegraph or telephone without additional compensation.

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A COPY OF OUR REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2009 WILL BE FURNISHED WITHOUT CHARGE TO STOCKHOLDERS AS OF THE VOTING RECORD DATE UPON WRITTEN REQUEST TO AMY E. ESSEX, SECRETARY, FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC., 100 SOUTH SECOND AVENUE, ALPENA, MICHIGAN 49707.

BY ORDER OF THE
BOARD OF
DIRECTORS

/s/ Amy E. Essex
Amy E. Essex
Secretary

Alpena, Michigan
April 16, 2010

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 19, 2010: THIS PROXY STATEMENT, INCLUDING THE NOTICE OF THE ANNUAL MEETING OF STOCKHOLDERS, AND FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.'S 2009 ANNUAL REPORT TO STOCKHOLDERS ON FORM 10-K ARE EACH AVAILABLE ON THE INTERNET AT WWW.CFPPROXY.COM/5807.

REVOCABLE PROXY

FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.

ANNUAL MEETING OF STOCKHOLDERS

May 19, 2010

The undersigned hereby appoints the full Board of Directors, with full powers of substitution to act as attorneys and proxies for the undersigned to vote all shares of common stock of First Federal of Northern Michigan Bancorp, Inc. which the undersigned is entitled to vote at the Annual Meeting of Stockholders (the "Meeting") to be held at the Thunder Bay National Marine Sanctuary, 500 W. Fletcher Street, Alpena, Michigan, at 1:00 p.m. Michigan time on May 19, 2010. The official proxy committee is authorized to cast all votes to which the undersigned is entitled as follows:

| | VOTE | | |
|--|-----------------------|-----------------------|-----------------------|
| | FOR | WITHHELD | |
| 1. The election as director of the nominees listed below to serve for a three-year term | | | |
| | <input type="radio"/> | <input type="radio"/> | |
| Keith D. Wallace | <input type="radio"/> | <input type="radio"/> | |
| Michael W. Mahler | | | |
| | | | |
| | FOR | AGAINST | ABSTAIN |
| 2. The ratification of the appointment of Plante & Moran, PLLC as independent registered public accountants for the year ending December 31, 2010. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

The Board of Directors recommends a vote "FOR" each of the listed proposals.

THIS PROXY WILL BE VOTED AS DIRECTED, BUT IF NO INSTRUCTIONS ARE SPECIFIED, THIS PROXY WILL BE VOTED FOR EACH OF THE PROPOSITIONS STATED ABOVE. IF ANY OTHER BUSINESS IS PRESENTED AT SUCH MEETING, THIS PROXY WILL BE VOTED BY THE ABOVE-NAMED PROXIES AT THE DIRECTION OF A MAJORITY OF THE BOARD OF DIRECTORS. AT THE PRESENT TIME, THE BOARD OF DIRECTORS KNOWS OF NO OTHER BUSINESS TO BE PRESENTED AT THE MEETING.

THIS PROXY IS SOLICITED BY THE BOARD OF DIRECTORS

Should the undersigned be present and elect to vote at the Meeting or at any adjournment thereof and after notification to the Secretary of First Federal of Northern Michigan Bancorp, Inc. at the Meeting of the stockholder's decision to terminate this proxy, then the power of said attorneys and proxies shall be deemed terminated and of no further force and effect. This proxy may also be revoked by sending written notice to the Secretary of First Federal of Northern Michigan Bancorp, Inc. at the address set forth on the Notice of Annual Meeting of Stockholders, or by the filing of a later proxy statement prior to a vote being taken on a particular proposal at the Meeting.

The undersigned acknowledges receipt from First Federal of Northern Michigan Bancorp, Inc. prior to the execution of this proxy of a Notice of the Meeting and a proxy statement dated April 16, 2010.

Dated: _____,
2010

Check Box if You Plan to Attend
Meeting

PRINT NAME OF
STOCKHOLDER

PRINT NAME OF STOCKHOLDER

SIGNATURE OF
STOCKHOLDER

SIGNATURE OF STOCKHOLDER

Please sign exactly as your name appears on this card. When signing as attorney, executor, administrator, trustee or guardian, please give your full title. If shares are held jointly, each holder should sign.

Please complete and date this proxy and return it promptly
in the enclosed postage-prepaid envelope.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 19, 2010: FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.'S PROXY STATEMENT, INCLUDING THE NOTICE OF THE ANNUAL MEETING OF STOCKHOLDERS, AND FIRST FEDERAL OF NORTHERN MICHIGAN BANCORP, INC.'S 2009 ANNUAL REPORT TO STOCKHOLDERS ON FORM 10-K ARE EACH AVAILABLE ON THE INTERNET AT WWW.CFPPROXY.COM/5807.

