



April 17, 2026

Dear Fellow Stockholder:

We cordially invite you to attend the 2026 Annual Meeting of Stockholders of Seneca Bancorp, Inc. The Annual Meeting will be held at Seneca Savings Bank, National Association, 35 Oswego Street, Baldwinsville, New York on May 19, 2026, at 10:00 a.m., local time.

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 the operations of Seneca Bancorp, Inc. Also enclosed for your review is our Annual Report for the year ended December 31, 2025, which contains information concerning our activities and operating performance. Our directors and officers will be present to respond to any questions that stockholders may have.

The business to be conducted at the annual meeting consists of the election of directors, the ratification of the appointment of Bonadio & Co., LLP as independent registered public accounting firm for the year ending December 31, 2026, the approval of a non-binding advisory resolution regarding the compensation of Seneca Bancorp's Named Executive Officers ("NEOs") and the approval of a non-binding advisory vote as to whether advisory votes on NEO compensation should be held every year, every two years, or every three years. The Board of Directors has determined that the matters to be considered at the annual meeting are in the best interest of Seneca Bancorp, Inc. and its stockholders, and the Board of Directors unanimously recommends a vote "FOR" each applicable matter to be considered and "FOR" one year.

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

Our Proxy Statement and the 2025 Annual Report are available at: <http://www.astproxyportal.com/ast/29799>.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph G. Vitale", with a stylized flourish at the end.

Joseph G. Vitale
President and Chief Executive Officer

Seneca Bancorp, Inc.
35 Oswego Street
Baldwinsville, New York 13027
(315) 638-0233

NOTICE OF
ANNUAL MEETING OF STOCKHOLDERS
To Be Held On May 19, 2026

Notice is hereby given that the 2026 Annual Meeting of Stockholders of Seneca Bancorp, Inc. (“Seneca Bancorp”) will be held at Seneca Savings Bank, National Association, 35 Oswego Street, Baldwinsville, New York on May 19, 2026 at 10:00 a.m., local time.

A Proxy Card and Proxy Statement for the annual meeting are enclosed. The annual meeting is for the purpose of considering and acting upon:

1. the election of two directors;
2. the ratification of the appointment of Bonadio & Co., LLP as independent registered public accounting firm for the year ending December 31, 2026;
3. the approval of a non-binding advisory resolution regarding the compensation of Seneca Bancorp’s Named Executive Officers (“NEOs”);
4. the approval of a non-binding advisory vote as to whether advisory votes on NEO compensation should be held every year, every two years, or every three years; and

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

Any action may be taken on the foregoing proposals at the annual meeting on the date specified above, or on the date or dates to which the annual meeting may be adjourned. Stockholders of record at the close of business on April 7, 2026 are the stockholders entitled to vote at the annual meeting, and any adjournments thereof.

EACH STOCKHOLDER, WHETHER HE OR SHE PLANS TO ATTEND THE ANNUAL MEETING, IS REQUESTED TO SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD WITHOUT DELAY IN THE ENCLOSED POSTAGE-PAID ENVELOPE OR VOTE BY INTERNET. ANY PROXY GIVEN BY THE STOCKHOLDER MAY BE REVOKED AT ANY TIME BEFORE IT IS VOTED. A PROXY MAY BE REVOKED BY FILING WITH THE CORPORATE SECRETARY OF SENECA BANCORP A WRITTEN REVOCATION OR A DULY EXECUTED PROXY CARD BEARING A LATER DATE. ANY STOCKHOLDER PRESENT AT THE ANNUAL MEETING MAY REVOKE HIS OR HER PROXY AND VOTE PERSONALLY ON EACH MATTER BROUGHT BEFORE THE ANNUAL 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 IN PERSON AT THE ANNUAL MEETING. ATTENDANCE AT THE ANNUAL MEETING WILL NOT IN ITSELF CONSTITUTE REVOCATION OF YOUR PROXY.

By Order of the Board of Directors



Jamie Nastri
Corporate Secretary

Baldwinsville, New York
April 17, 2026

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS: THE PROXY STATEMENT, INCLUDING THE NOTICE OF THE ANNUAL MEETING OF STOCKHOLDERS, AND SENECA BANCORP'S ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 2025 ARE EACH AVAILABLE ON THE INTERNET AT <https://www.astproxyportal.com/ast/29799>.

PROXY STATEMENT

Seneca Bancorp, Inc.
35 Oswego Street
Baldwinsville, New York 13027
(315) 638-0233

ANNUAL MEETING OF STOCKHOLDERS

May 19, 2026

This Proxy Statement is furnished in connection with the solicitation of proxies on behalf of the Board of Directors of Seneca Bancorp, Inc. (“Seneca Bancorp”) to be used at the Annual Meeting of Stockholders, which will be held at Seneca Savings Bank, National Association, 35 Oswego Street, Baldwinsville, New York on May 19, 2026, at 10:00 a.m., local time, and all adjournments of the annual meeting. The accompanying Notice of Annual Meeting of Stockholders and this Proxy Statement are first being mailed to stockholders on or about April 17, 2026.

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 annual meeting and all adjournments thereof. Proxies solicited on behalf of the Board of Directors of Seneca Bancorp will be voted in accordance with the directions given thereon. **Please sign and return your proxy card in the postage paid envelope provided or vote by internet. Where no instructions are indicated on the proxy card, signed proxies will be voted “FOR” the election of the nominees for director named herein, “FOR” the ratification of the appointment of Bonadio & Co., LLP as our independent registered public accounting firm for the year ending December 31, 2026, “FOR” the approval of the non-binding advisory resolution regarding the compensation of Seneca Bancorp’s NEOs and “FOR” the approval of a non-binding advisory vote to hold advisory votes on NEO compensation every year.**

Proxies may be revoked by sending written notice of revocation to the Corporate Secretary of Seneca Bancorp at the address shown above, by filing a duly executed proxy bearing a later date or by voting in person at the annual meeting. The presence at the annual 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 annual meeting or delivers a written revocation to our Corporate Secretary prior to the voting of such proxy.

If you have any questions about giving your proxy or require assistance, please call Jamie Nastri, Corporate Secretary, at (315) 638-0233.

If you are a stockholder whose shares are not registered in your name, you will need appropriate documentation from your record holder to vote in person at the annual meeting.

SOLICITATION OF PROXIES; EXPENSES

We will pay the cost of this proxy solicitation. Our directors, executive officers and other employees may solicit proxies by mail, personally, by telephone, by press release, by facsimile transmission or by other electronic means. No additional compensation will be paid to our directors, executive officers or employees for such services. 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.

VOTING SECURITIES AND PRINCIPAL HOLDERS

Except as otherwise noted below, holders of record of Seneca Bancorp’s shares of common stock, par value \$0.01 per share, as of the close of business on April 7, 2026 are entitled to one vote for each share then held. As of April 7, 2026, there were 1,800,141 shares of common stock issued and outstanding.

Principal Holders

Persons and groups who beneficially own in excess of 5% of the shares of common stock are required to file certain reports with the Securities and Exchange Commission regarding such ownership. The following table sets forth, as of April 7, 2026, the shares of common stock beneficially owned by our directors and executive officers, individually and as a group, and by each person who was known to us as the beneficial owner of more than 5% of the outstanding shares of common stock. The mailing address for each of our directors and executive officers is 35 Oswego Street, Baldwinsville, New York 13027. No director or executive officer has pledged Seneca Bancorp common stock as collateral for a loan.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership ⁽¹⁾	Percentage of Shares of Common Stock Outstanding ⁽²⁾
Greater Than 5% Stockholders other than Directors:		
Seneca Savings Bank, National Association Employee Stock Ownership Plan Trust	158,710 ⁽³⁾	8.9 %
Trustee: Community Bank of Pleasant Hill, dba first Trust of MidAmerica 3500 N Village Dr. Suite 220 St. Joseph, Missouri 64506		
Minerva Advisors, LLC, Minerva Group, LP, Minerva GP, LP, Minerva GP, Inc. and David P. Cohen 50 Monument Road, Suite 201 Bala Cynwyd, PA 19004.	108,052 ⁽⁴⁾	6.0
Directors:		
Mark Zames, Chairman of the Board.	166,108 ⁽⁵⁾	9.2
Kimberly Boynton, Director.	13,747 ⁽⁶⁾	*
Michael Duteau, Director	4,387	*
Vincent J. Fazio, Executive Vice President, Chief Financial Officer and Director	26,442 ⁽⁷⁾	1.5
James Hickey, Director.	9,915 ⁽⁸⁾	*
William M. Le Beau, Director	26,798 ⁽⁹⁾	1.5
Joseph G. Vitale, President, Chief Executive Officer and Director.	44,173 ⁽¹⁰⁾	2.4
Executive Officers Who Are Not Directors:		
Jamie Nastri, Senior Vice President of Operations.	4,092 ⁽¹¹⁾	*
Angelo Testani, Senior Vice President of Commercial Lending.	15,695 ⁽¹²⁾	*
All directors and executive officers as a group (9 persons)	<u>311,357</u> ⁽¹³⁾	17.3

* Less than 1.00% of common stock outstanding.

- (1) In accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended, a person is deemed to be the beneficial owner, for purposes of this table, of any shares of Seneca Bancorp, Inc. common stock if he or she has or shares voting or investment power with respect to such common stock or has a right to acquire beneficial ownership at any time within 60 days from April 7, 2026. 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. Except as otherwise noted, ownership is direct and the named individuals and group exercise sole voting and investment power over the shares of Seneca Bancorp, Inc. common stock.
- (2) Percentages with respect to each person or group of persons have been calculated on the basis of 1,800,141 shares of common stock, the total number of shares of common stock outstanding as of April 7, 2026, plus the number of shares that each person or group of persons have the right to acquire within 60 days of April 7, 2026.
- (3) Based on a Schedule 13G filed with the Securities and Exchange Commission on March 2, 2026 reporting sole voting power over 134,965 shares, shared voting power over 23,745 shares and sole dispositive power over 158,710 shares.
- (4) Based on information reported on a Schedule 13G/A filed with the Securities and Exchange Commission on February 13, 2026, Minerva Advisors, LLC, Minerva Group, LP, Minerva GP, LP, Minerva GP, Inc. and David P. Cohen reported sole dispositive and voting power with respect to 70,402 shares of our voting common stock and Minerva Advisors, LLC and David P. Cohen reported shared dispositive and voting power with respect to 37,650 shares of our voting common stock.
- (5) Includes 2,803 shares held in an individual retirement account and 3,874 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (6) Includes 3,874 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (7) Includes 1,026 shares allocated to Mr. Fazio's employee stock ownership account, 4,003 shares held in his 401(k) account, 8,473 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026 and 5,000 shares of restricted stock.
- (8) Includes 4,494 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (9) Includes 17,462 shares held in an individual retirement account, 4,842 shares held in a family trust and 4,494 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (10) Includes 13,444 shares held in an individual retirement account, 1,673 shares allocated to Mr. Vitale's employee stock ownership account, 8,101 shares held in his 401(k) account, 10,411 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026 and 5,000 shares of restricted stock.

- (11) Includes 638 shares allocated to Ms. Nastri employee stock ownership account, 549 shares held in her 401(k) account, 1,840 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (12) Includes 7,000 shares held in an individual retirement account, 1,072 shares allocated to Mr. Testani employee stock ownership account, 3,266 shares held in his 401(k) account, 3,292 shares that can be acquired pursuant to stock options within 60 days of April 7, 2026.
- (13) Includes 5,248 shares of common stock allocated to the accounts of executive officers under the Amended and Restated Seneca Savings Bank, National Association Employee Stock Ownership Plan (the "ESOP") and excludes the remaining 135,699, or 7.5% of the shares of common stock outstanding, owned by the ESOP for the benefit of employees of Seneca Savings Bank, National Association. Under the terms of the ESOP, shares of common stock in the ESOP are voted by the ESOP trustees in a manner proportionate to the voting directions of the allocated shares received by the ESOP participants, subject to the fiduciary duties of the trustees.

Quorum

The presence in person or by proxy of holders of a majority of the total number of outstanding shares of common stock entitled to vote is necessary to constitute a quorum at the annual meeting. Abstentions and broker non-votes will be counted for purposes of determining that a quorum is present. In the event there are not sufficient votes for a quorum, or to approve or ratify any matter being presented at the time of the annual meeting, the annual meeting may be adjourned in order to permit the further solicitation of proxies.

Votes Required

As to the election of directors, the proxy card being provided by the Board of Directors enables a stockholder: (i) to vote FOR ALL nominees proposed by the Board; (ii) to WITHHOLD for ALL nominees; or (iii) to vote FOR ALL EXCEPT one or more of the nominees being proposed. Directors are elected by a plurality of votes cast, without regard to either broker non-votes or proxies as to which the authority to vote for the nominees being proposed is withheld. Plurality means that individuals who receive the highest number of votes cast are elected, up to the maximum number of directors to be elected at the annual meeting.

As to the ratification of the appointment of Bonadio & Co., LLP as our independent registered public accounting firm for the year ending December 31, 2026, by checking the appropriate box, a stockholder may: (i) vote FOR the ratification; (ii) vote AGAINST the ratification; or (iii) ABSTAIN from voting on such ratification. The ratification of this matter shall be determined by a majority of the votes represented at the annual meeting and entitled to vote on the matter, without regard to proxies marked ABSTAIN or broker non-votes.

As to the advisory, non-binding approval of the resolution with respect to our NEO compensation as described in this Proxy Statement, a stockholder may: (i) vote FOR the resolution; (ii) vote AGAINST the resolution; or (iii) ABSTAIN from voting on the resolution. The affirmative vote of a majority of the votes cast at the annual meeting, without regard to broker non-votes and proxies marked ABSTAIN, is required for the approval of the non-binding resolution. While this vote is required by law, it will neither be binding on Seneca Bancorp or the Board of Directors, nor will it create or imply any change in the fiduciary duties of, or impose any additional fiduciary duty on, Seneca Bancorp or the Board of Directors.

As to the advisory non-binding vote on the approval of the frequency of the advisory votes on NEO compensation, stockholders may: (i) vote ONE YEAR; (ii) vote TWO YEARS; (iii) vote THREE YEARS, or (iv) ABSTAIN from voting on such matter. The option that receives the most votes at the annual meeting will be considered by the Board of Directors in determining the preferred frequency with which Seneca Bancorp will hold a stockholder vote to approve the compensation of its NEOs.

Effect of Not Casting Your Vote

If you hold your shares in “street name,” you are considered the beneficial owner of your shares and your broker, bank or other holder of record is sending these proxy materials to you. As the beneficial owner, you have the right to direct your broker, bank or other holder of record how to vote by completing a voting instruction form provided by your broker, bank or other holder of record that accompanies your proxy materials. If you hold your shares in street name, it is critical that you cast your vote if you want it to count in the election of directors (Proposal 1), the advisory vote on NEO compensation (Proposal 3), and the frequency of the advisory votes on NEO compensation (Proposal 4). Current regulations restrict the ability of your bank, broker or other holder of record to vote your shares in certain matters on a discretionary basis. Therefore, if you hold your shares in street name and you do not instruct your bank, broker or other holder of record on how to vote in Proposals 1, 3, and 4, no votes will be cast on your behalf. These are referred to as “broker non-votes.” Your bank, broker or other holder of record, however, does continue to have discretion to vote any shares for which you do not provide instructions on how to vote on the ratification of the appointment of the independent registered public accounting firm (Proposal 2). If you are a stockholder of record and you do not cast your vote, no votes will be cast on your behalf on any of the items of business at the annual meeting.

Participants in the Amended and Restated Seneca Savings Bank, National Association Employee Stock Ownership Plan or the Seneca Savings Bank 401(k) Plan

If you participate in the Amended and Restated Seneca Savings Bank, National Association Employee Stock Ownership Plan (the “ESOP”), you will receive a Vote Authorization Form for the ESOP that reflects all of the shares you may direct the trustees to vote on your behalf under the ESOP. Under the terms of the ESOP, the ESOP trustee votes all shares held by the ESOP, but each ESOP participant may direct the trustee how to vote the proportionate interest of shares of our common stock allocated or deemed allocated to his or her account. The ESOP trustee, subject to the exercise of its fiduciary responsibilities, will vote all unallocated shares of our common stock held by the ESOP and allocated shares for which no voting instructions are received in the same proportion as shares for which it has received timely voting instructions, subject to a determination that such vote is in the best interest of ESOP participants.

In addition, participants in the Seneca Savings Bank 401(k) Plan (“401(k) Plan”) who have assets invested in Seneca Bancorp common stock will receive a Vote Authorization Form that allows them to direct the 401(k) Plan trustee to vote their shares held by the 401(k) Plan. If a participant does not direct the 401(k) Plan trustee as to how to vote his or her shares in the 401(k) Plan, the trustee will vote such interest in the same proportion as it has received voting instructions from other 401(k) Plan participants. **The deadline for returning your ESOP Vote Authorization Form and/or 401(k) Vote Authorization Form is Tuesday, May 12, 2026 at 5:00 p.m. local time.**

PROPOSAL I—ELECTION OF DIRECTORS

Our Board of Directors is currently comprised of seven members. Our Bylaws provide that directors are divided into three classes as nearly equal in number as possible, with one class of directors elected annually. Kimberly Boynton and Joseph Vitale have been nominated for election at the annual meeting to serve for a three-year and one-year period, respectively, and until their respective successors shall have been elected and qualified. Each nominee is currently a director of Seneca Bancorp.

The following sets forth certain information regarding the nominees and the other current members of our Board of Directors, including the terms of office of board members. 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 any nominee) will be voted at the annual meeting for the election of the proposed nominees. 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 determine. At this time, the Board of Directors knows of no reason why any of the nominees might be unable to serve, if elected. Except as indicated herein, there are no arrangements or understandings between any nominee or continuing director and any other person pursuant to which such nominee or continuing director was selected. Age information is as of December 31, 2025, and term as a director includes service with Seneca Savings Bank, National Association (“Seneca Savings Bank”).

With respect to directors and nominees, the biographies contain information regarding the person's business experience and the experiences, qualifications, attributes or skills that caused the Board of Directors to determine that the person should serve as a director. Each director of Seneca Bancorp is also a director of Seneca Savings Bank.

Directors

The nominees for director for a term ending in the year ending December 31, 2029:

Kimberly Boynton, age 56, is a licensed real estate agent with Pyramid Brokerage Company specializing in commercial real estate in upstate New York. Mrs. Boynton previously served as President and Chief Executive Officer of Crouse Health, as well as Vice President of the Crouse Health Foundation, from January 2014 until March 2023. She began her career at Crouse in 1998 and served as Chief Financial Officer from 2003 until her appointment as Chief Executive Officer. Prior, she served as an auditor with Coopers & Lybrand in Syracuse, New York. Ms. Boynton is actively involved in the Syracuse community, currently serving as a member of the board of directors of SRC, Inc., a national defense contractor, since 2016, Byrne Dairy, Inc. since October 2023, AAA of Western and Central New York since 2005, AAA National since May 2024, NYSTEC, a non-profit technology consulting company, since June 2024, The Century Club of Syracuse since January 2024, and Christian Brothers Academy since 2010. Ms. Boynton's strong business background, commercial real estate experience, and extensive community involvement provide the board of directors and Seneca Savings Bank with invaluable insight into the local economy and real estate industry and the needs of the local communities that Seneca Savings Bank serves. Ms. Boynton has served on the Board since 2021.

Joseph G. Vitale, age 54 has served as President, Chief Executive Officer and director of Seneca Savings Bank since October 2013. Before joining Seneca Savings Bank in 2013, Mr. Vitale served as Executive Vice President and in other various senior management and employee positions at Savannah Bank, NA from 1996 until July 2013. Mr. Vitale also served as a Credit Analyst at Cayuga Savings Bank from 1993 until 1996. Mr. Vitale is a 2012 Stonier School of Banking graduate and has received the Wharton Leadership Certificate in 2014. Mr. Vitale has served on the Board of Directors of the Independent Bankers Association of New York State since 2023. Mr. Vitale's extensive knowledge of the banking industry and strong leadership skills provide the board of directors and Seneca Savings Bank with invaluable insight and guidance into the business and regulatory requirements of today's banking environment. Mr. Vitale has served on the Board since 2013.

The following directors of Seneca Bancorp have terms ending in the year ending December 31, 2027:

Mark Zames, age 51, was the founder and owner of Infusion Business Solutions, which processed up to a billion credit card payments annually, from 2012 to 2021. Since the sale of Infusion Business Solutions in 2021, Mr. Zames has acted as a business consultant to multiple businesses and grown a commercial real estate portfolio focused on distressed commercial properties. Mr. Zames' experience in business development, integrated technologies, organizational strategies, and commercial real estate provides the board of directors and Seneca Savings Bank with extensive insight into the local economy and commercial real estate industry. Mr. Zames volunteers his time to ensure that young people learn the fundamentals of business by directing Brothers Threads, the student-run personalized apparel and accessories company at Christian Brothers Academy. Mr. Zames has served on the Board since 2020.

Vincent J. Fazio, age 65, has served as Executive Vice President and Chief Financial Officer of Seneca Savings Bank since August 2013 and as a member of our board of directors since May 2017. Prior to joining Seneca Savings Bank, Mr. Fazio was a consultant with ProNexus, LLC, a consulting firm which specializes in working with banks, from May 2012 until June 2013. Mr. Fazio has over 40 years of financial and accounting experience with community banks. Prior to being employed with Seneca Savings Bank, Mr. Fazio served in various roles, including chief financial officer, with other companies including Patriot Federal Bank, Liberty Enterprise, Central National Bank and Albany Savings Bank. Mr. Fazio has served as a member of the Board of Directors of the Baldwinsville Community Scholarship Foundation. Mr. Fazio's extensive financial and accounting expertise and knowledge of the community banking industry provide the board of directors and Seneca Savings Bank with invaluable insight into accounting practices and the financial implications of our strategic and corporate initiatives.

The following directors of Seneca Bancorp have terms ending in the year ending December 31, 2028:

Michael Duteau age 56, has served as president of Noble Health Services, the specialty pharmacy division of KPH Healthcare Services, Syracuse, New York. Prior to joining Noble Health Services as president, he served in the role of vice president of business development for all KPH Healthcare Services divisions, as well as vice president of pharmacy operations for Kinney Drugs. He was elected to the KPH Board of Directors in July 2023. In addition to his roles at Noble and KPH, Mr. Duteau is president of the Community Pharmacy Association of New York and president of the Vermont Chain Drug Association. Mr. Duteau graduated from Albany College of Pharmacy and is a licensed pharmacist in multiple states. He served as a member of the Board of Trustees of Albany College. He completed his executive education at The Wharton School of the University of Pennsylvania and Syracuse University. Mr. Duteau's business acumen and entrepreneurial background are valuable assets to Seneca Bancorp and Seneca Savings Bank. Mr. Duteau has served on the Board since 2024.

James Hickey age 59, has been the co-owner and operator of Charles Signs, Inc., a family business located in Liverpool, New York, which has provided signs and custom graphic designs for businesses since 1968. Mr. Hickey became President of Charles Signs, Inc. in 2002. Mr. Hickey has also served as President of Enterprise 13, Inc., a commercial real estate holding company, since 2004. Mr. Hickey's strong business background provides the board of directors and Seneca Savings Bank with invaluable insight into the needs of the local communities that Seneca Savings Bank serves. Mr. Hickey has served on the Board since 2016.

William M. Le Beau age 77, previously served in various roles at Seneca Savings Bank, including Interim President and Chief Executive Officer from April 2013 to October 2013, Executive Vice President for strategic initiatives from October 2012 until April 2013, and Senior Vice President for commercial lending beginning in April 2012. He served as chairman of our board of directors from January 2017 to March 2022. Prior to joining Seneca Savings Bank, Mr. Le Beau served as a consultant to various East Coast banks from 2005 to 2012. His prior bank experience includes officer positions with New York community banks OnBank, M&T Bank, BSB Bank & Trust Company, and Partners Trust Financial Group over a span of 17 years. From 1971 to 1988, Mr. Le Beau was a bank examiner for the FDIC, where he also participated in several assignments to the division of liquidation. Mr. Le Beau's leadership skills, extensive background in the financial services industry and his experience working for Seneca Savings Bank brings extensive knowledge of the financial services industry in general and our organization and local markets to the board directors. Mr. Le Beau has served on the Board since 2013.

Executive Officers Who are Not Directors

Jamie Nastri age 45, has served as our Senior Vice President of Operations since August 2023. Ms. Nastri joined Seneca Savings Bank as a Branch Manager in 2016 and became Assistant Vice President of Operations in 2017. Prior to joining Seneca Savings Bank, Ms. Nastri held several roles with M&T Bank between 2011 to 2016, including Business Development Officer.

Angelo Testani age 61, has served as our Senior Vice President of Commercial Lending since 2016. Mr. Testani has over 35 years of experience in community banking, having previously served as Small Business Relationship Manager at M&T Bank from 2007 to 2016, Relationship Manager at HSBC Bank from 2004 to 2007, and in various roles at what is now a part of Bank of America from 1998 to 2004.

Board Independence

The Board of Directors has determined that each of our directors, except for Joseph G. Vitale and Vincent J. Fazio, is “independent” as defined in the listing standards of the Nasdaq Stock Market. Messrs. Vitale and Fazio are not independent because they are employed as executive officers of Seneca Bancorp and Seneca Savings Bank. The board of directors did not consider any other transactions, relationships and arrangements between Seneca Bancorp and its directors which are not required to be reported under “—Transactions with Certain Related Persons.”

Board Leadership Structure and Risk Oversight

Our Board of Directors is chaired by Mark Zames, who is an independent director. This ensures a greater role for the independent directors in the oversight of Seneca Bancorp and Seneca Savings Bank and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of the Board.

To further assure effective independent oversight, the Board of Directors has adopted a number of governance practices, including:

- a majority independent Board of Directors;
- periodic meetings of the independent directors; and
- annual performance evaluations of the President and Chief Executive Officer by the Compensation Committee.

The Board of Directors recognizes that, depending on the circumstances, other leadership models might be appropriate. Accordingly, the Board of Directors periodically reviews its leadership structure.

The Board of Directors is actively involved in oversight of risks that could affect Seneca Bancorp. This oversight is conducted primarily through committees of the Board of Directors, but the full Board of Directors has retained responsibility for general oversight of risks. The Board of Directors also satisfies this responsibility through reports by the committee chair of all board committees regarding the committees’ considerations and actions, through review of minutes of committee meetings and through regular reports directly from officers responsible for oversight of particular risks within Seneca Bancorp. Risks relating to the direct operations of Seneca Savings Bank are further overseen by the Board of Directors of Seneca Savings Bank, a majority of whom are the same individuals who serve on the Board of Directors of Seneca Bancorp. The Board of Directors of Seneca Savings Bank also has additional committees that conduct risk oversight. All committees are responsible for the establishment of policies that guide management and staff in the day-to-day operation of Seneca Bancorp and Seneca Savings Bank such as lending, risk management, asset/liability management, investment management and others.

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. 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.

Section 16(a) Delinquent Reports

Our executive officers and directors and beneficial owners of greater than 10% of the outstanding shares of common stock are required to file reports with the Securities and Exchange Commission disclosing beneficial ownership and changes in beneficial ownership of our common stock. Securities and Exchange Commission rules require disclosure if an executive officer, director or 10% beneficial owner fails to file these reports on a timely basis. Based on our review of ownership reports required to be filed for the year ended December 31, 2025, no executive officer, director or 10%

beneficial owner of our shares of common stock failed to file ownership reports with the Securities and Exchange Commission on a timely basis.

Code of Ethics for Senior Officers

Seneca Bancorp has adopted a Code of Ethics for Senior Officers that applies to Seneca Bancorp's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Code of Ethics for Senior Officers is available on our website at <https://www.senecasavings.com/investor-relations/>. Amendments to and waivers from the Code of Ethics for Senior Officers will also be disclosed on our website.

Policy on Insider Trading

Seneca Bancorp has adopted a Policy on Insider Trading governing the purchase, sale, and/or other dispositions of our securities by our directors, officers and employees as well as by Seneca Bancorp itself that we believe is reasonably designed to promote compliance with insider trading laws, rules and regulations. A copy of our Policy on Insider Trading was filed as Exhibit 19 to Seneca Bancorp's Annual Report on Form 10-K for the year ended December 31, 2025.

Anti-Hedging Policy

Seneca Bancorp's anti-hedging and anti-pledging provisions are covered in its Policy on Insider Trading. Under the policy, directors and executive officers are prohibited from engaging in short sales of Seneca Bancorp stock, and unless specifically approved by the Board of Directors, from engaging in transactions in publicly-traded options, such as puts, calls and other derivative securities based on Seneca Bancorp stock including any hedging, monetization or similar transactions designed to decrease the risks associated with holding Seneca Bancorp stock. The Board of Directors has not approved and does not intend to approve such a program. In addition, directors and executive officers are generally prohibited from pledging Seneca Bancorp stock as collateral for any loan or holding Seneca Bancorp stock in a margin account. The Board of Directors may approve an exception to this policy for a pledge of Seneca Bancorp stock as collateral for a loan from a third party (not including margin debt) where the borrower clearly demonstrates the financial capacity to repay the loan without resort to the pledged securities. The Board of Directors has not approved any such exception to its policy.

Attendance at Annual Meetings of Stockholders

Seneca Bancorp does not have a written policy regarding director attendance at annual meetings of stockholders, although directors are expected to attend these meetings absent unavoidable scheduling conflicts. Seven directors attended the 2025 Annual Meeting of Stockholders.

Communications with the Board of Directors

Any stockholder who wishes to contact our Board of Directors or an individual director may do so by writing to: Seneca Bancorp, Inc., 35 Oswego Street, Baldwinsville, New York 13027, Attention: Board of Directors. The letter should indicate that the sender is a stockholder and, if shares are not held of record, should include appropriate evidence of stock ownership. Communications are reviewed by the Corporate Secretary and are then distributed to the Board of Directors or the individual director, as appropriate, depending on the facts and circumstances outlined in the communications received. The Corporate Secretary may attempt to handle an inquiry directly (for example, where it is a request for information about Seneca Bancorp or it is a stock-related matter). The Corporate Secretary has the authority not to forward a 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 of Directors meeting, the Corporate Secretary shall present a summary of all communications received since the last meeting that were not forwarded and make those communications available to the directors on request.

Meetings and Committees of the Board of Directors

The business of Seneca Bancorp is conducted at regular and special meetings of the Board of Directors and its committees. In addition, the “independent” members of the Board of Directors (as defined in the listing standards of the Nasdaq Stock Market) meet in executive sessions. The standing committees of the Board of Directors of Seneca Bancorp are the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee.

The Board of Directors of Seneca Bancorp held 12 regular meetings during the year ended December 31, 2025. Seneca Savings Bank held 12 regular meetings and no special meetings during the year ended December 31, 2025. No member of the Board of Directors 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 on which he or she served (during the periods that he or she served).

Audit Committee. The Audit Committee is comprised of Directors Boynton, Duteau and Zames each of whom is “independent” in accordance with applicable Securities and Exchange Commission rules and Nasdaq listing standards. Director Boynton serves as chair of the Audit Committee. The Board of Directors has determined that Director Boynton qualifies as an “audit committee financial expert” as defined under applicable Securities and Exchange Commission rules.

Our Board of Directors has adopted a written charter for the Audit Committee, which is available on our website at <https://www.senecasavings.com/investor-relations/>. As more fully described in the Audit Committee Charter, the Audit Committee reviews the financial records and affairs of Seneca Bancorp and monitors adherence in accounting and financial reporting to accounting principles generally accepted in the United States of America. The Audit Committee met seven times during the year ended December 31, 2025.

Compensation Committee. The Compensation Committee was comprised of Directors Boynton, Zames and Le Beau each of whom is “independent” in accordance with applicable Nasdaq listing standards. Director Boynton served as chair of the Compensation Committee. The Compensation Committee met four times during the year ended December 31, 2025.

With regard to compensation matters, the Compensation Committee’s primary purposes are to discharge the Board’s responsibilities relating to the compensation of the Chief Executive Officer and other executive officers, to oversee Seneca Bancorp’s compensation and incentive plans, policies and programs, and to oversee Seneca Bancorp’s management development and succession plans for executive officers. Seneca Bancorp’s Chief Executive Officer will not be present during any committee deliberations or voting with respect to his compensation. The Compensation Committee may form and delegate authority and duties to subcommittees as it deems appropriate.

During the year ended December 31, 2025, the Compensation Committee did not utilize the services of a compensation consultant.

The Compensation Committee operates under a written charter which is available on our website at <https://www.senecasavings.com/investor-relations/>. This charter sets forth the responsibilities of the Compensation Committee and reflects the Compensation Committee’s commitment to create a compensation structure that encourages the achievement of long-range objectives and builds long-term value for our stockholders.

The Compensation Committee considers a number of factors in their decisions regarding executive compensation, including, but not limited to, the level of responsibility and performance of the individual executive officers, the overall performance of Seneca Bancorp and a peer group analysis of compensation paid at institutions of comparable size and complexity. The Compensation Committee also considers the recommendations of the President and Chief Executive Officer with respect to the compensation of executive officers other than the President and Chief Executive Officer.

Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee is comprised of Directors Zames, Le Beau, and Hickey each of whom is “independent” in accordance with applicable Nasdaq listing standards. Director Zames serves as chair of the Nominating and Corporate Governance. Our Board of Directors has adopted a written charter for the Nominating and Corporate Governance Committee, which is available on our website at <https://www.senecasavings.com/investor-relations/>. The Nominating and Corporate Governance met one time during the year ended December 31, 2025. The Board of Directors does not have a formal policy or specific guidelines regarding diversity among board members. However, the Board of Directors seeks members who represent a mix of backgrounds that will reflect the diversity of our stockholders, employees, and customers, and experiences that will enhance the quality of the Board of Directors’ deliberations and decisions. As the holding company for a community bank, the Board of Directors also seeks directors who can continue to strengthen Seneca Savings Bank’s position in its community and can assist Seneca Savings Bank with business development through business and other community contacts.

The Board of Directors considers the following criteria in evaluating and selecting candidates for nomination:

- ***Contribution to Board*** – Seneca Bancorp endeavors to maintain a Board of Directors that possesses a wide range of abilities. Thus, the Board of Directors will assess the extent to which the candidate would contribute to the range of talent, skill and expertise appropriate for the Board of Directors. The Board of Directors will also take into consideration the number of public company boards of directors, other than Seneca Bancorp’s, and committees thereof, on which the candidate serves. The Board of Directors will consider carefully the time commitments of any candidate who would concurrently serve on the boards of directors of more than one public company other than Seneca Bancorp, it being the policy of Seneca Bancorp to limit public company directorships to one company other than Seneca Bancorp.
- ***Experience*** – Seneca Bancorp is the holding company for an insured depository institution. Because of the complex and heavily regulated nature of Seneca Bancorp’s business, the Board of Directors will consider a candidate’s relevant financial, regulatory and business experience and skills, including the candidate’s knowledge of the banking and financial services industries, familiarity with the operations of public companies and ability to read and understand fundamental financial statements, as well as real estate and legal experience.
- ***Familiarity with and Participation in Local Community*** – Seneca Bancorp is a community-orientated organization that serves the needs of local consumers and businesses. In connection with the local character of Seneca Bancorp’s business, the Board of Directors will consider a candidate’s familiarity with Seneca Bancorp’s market area (or a portion thereof), including without limitation the candidate’s contacts with and knowledge of local businesses operating in Seneca Bancorp’s market area, knowledge of the local real estate markets and real estate professionals, experience with local governments and agencies and political activities, and participation in local business, civic, charitable or religious organizations.
- ***Integrity*** – Due to the nature of the financial services provided by Seneca Bancorp and its subsidiaries, Seneca Bancorp is in a special position of trust with respect to its customers. Accordingly, the integrity of the Board of Directors is of utmost importance to developing and maintaining customer relationships. In connection with upholding that trust, the Board of Directors will consider a candidate’s personal and professional integrity, honesty and reputation, including, without limitation, whether a candidate or any entity controlled by the candidate is or has in the past been subject to any regulatory orders, involved in any regulatory or legal action, or been accused or convicted of a violation of law, even if such issue would not result in disqualification for service under Seneca Bancorp’s Bylaws.
- ***Stockholder Interests and Dedication*** – A basic responsibility of directors is the exercise of their business judgment to act in what they reasonably believe to be in the best long-term interests of Seneca Bancorp and its stockholders. In connection with such obligation, the Board of Directors will consider a candidate’s ability to represent the best long-term interests of Seneca Bancorp and its stockholders, including past service with Seneca Bancorp or Seneca Savings Bank and contributions to their operations, the candidate’s experience or involvement with other local financial services companies, the

potential for conflicts of interests with the candidate's other pursuits, and the candidate's ability to devote sufficient time and energy to diligently perform his or her duties, including the candidate's ability to personally attend board and committee meetings.

- ***Independence*** – The Board of Directors will consider the absence or presence of material relationships between a candidate and Seneca Bancorp (including those set forth in applicable listing standards) that might impact objectivity and independence of thought and judgment. In addition, the Board of Directors will consider the candidate's ability to serve on any Board committees that are subject to additional regulatory requirements (e.g. Securities and Exchange Commission regulations and applicable listing standards). If Seneca Bancorp should adopt independence standards other than those set forth in the Nasdaq Stock Market listing standards, the Board of Directors will consider the candidate's potential independence under such other standards.
- ***Additional Factors*** – The Board of Directors will also consider any other factors it deems relevant to a candidate's nomination, including the extent to which the candidate helps the Board of Directors reflect the diversity of Seneca Bancorp's stockholders, employees, customers and communities. The Board of Directors also may consider the current composition and size of the Board of Directors, the balance of management and independent directors, and the need for audit committee expertise.

The committee identifies nominees by first evaluating the current members of the Board of Directors willing to continue in service, including the current members' board and committee meeting attendance and performance, length of board service, experience and contributions, and independence. Current members of the Board of Directors with skills and experience that are relevant to Seneca Bancorp's business and who are willing to continue in service are considered for re-nomination, balancing the value of continuity of service by existing members of the Board of Directors with that of obtaining a new perspective. If there is a vacancy on the Board of Directors because any member of the Board of Directors does not wish to continue in service or if the Board of Directors decides not to re-nominate a member for re-election, the Board of Directors would determine the desired skills and experience of a new nominee (including a review of the skills set forth above), may solicit suggestions for director candidates from all board members and may engage in other search activities.

During the year ended December 31, 2025 we did not pay a fee to any third party to identify or evaluate or assist in identifying or evaluating potential nominees for director.

The Board of Directors may consider qualified candidates for director suggested by our stockholders. Stockholders can suggest qualified candidates for director by writing to our Corporate Secretary at 35 Oswego Street, Baldwinsville, New York 13027. The Board of Directors has adopted a procedure by which stockholders may recommend nominees to the Board of Directors. Stockholders who wish to recommend a nominee must write to Seneca Bancorp's Corporate Secretary and such communication must include:

- A statement that the writer is a stockholder and is proposing a candidate for consideration by the Board of Directors;
- The name and address of the stockholder as they appear on Seneca Bancorp's books, and of the beneficial owner, if any, on whose behalf the nomination is made;
- The class or series and number of shares of Seneca Bancorp's capital stock that are owned beneficially or of record by such stockholder and such beneficial owner;
- A description of all arrangements or understandings between such stockholder and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made by such stockholder;

- A representation that such stockholder intends to appear in person or by proxy at the meeting to nominate the nominee named in the stockholder’s notice;
- The name, age, personal and business address of the candidate, the principal occupation or employment of the candidate and the number of shares of common stock of Seneca Bancorp that are owned by the candidate;
- The candidate’s written consent to serve as a director;
- A statement of the candidate’s business and educational experience and all other information relating to such person that would indicate such person’s qualification to serve on Seneca Bancorp’s Board of Directors; and
- Such other information regarding the candidate or the stockholder as would be required to be included in Seneca Bancorp’s proxy statement pursuant to Securities and Exchange Commission Regulation 14A.

To be timely, the submission of a candidate for director by a stockholder must be received by the Corporate Secretary at least 120 days prior to the anniversary date of the proxy statement relating to the preceding year’s annual meeting of stockholders. If (i) less than 90 days’ prior public disclosure of the date of the meeting is given to stockholders and (ii) the date of the annual meeting is advanced more than 30 days prior to or delayed more than 30 days after the anniversary of the preceding year’s annual meeting, a stockholder’s submission of a candidate shall be timely if delivered or mailed to and received by the Corporate Secretary of Seneca Bancorp no later than the 10th day following the day on which public disclosure (by press release issued through a nationally recognized news service, a document filed with the Securities and Exchange Commission, or on a website maintained by Seneca Bancorp) of the date of the annual meeting is first made.

Submissions that are received and that satisfy the above requirements are forwarded to the Board of Directors for further review and consideration, using the same criteria to evaluate the candidate as it uses for evaluating other candidates that it considers.

There is a difference between the recommendations of nominees by stockholders pursuant to this policy and a formal nomination (whether by proxy solicitation or in person at a meeting) by a stockholder. Stockholders have certain rights under applicable law with respect to nominations, and any such nominations must comply with applicable law and provisions of the Bylaws of Seneca Bancorp. See “Stockholder Proposals and Nominations.”

Audit Committee Report

The Audit Committee has issued a report that states as follows:

- We have reviewed and discussed with management our audited consolidated financial statements for the year ended December 31, 2025.
- We have discussed with the independent registered public accounting firm the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board and the Securities and Exchange Commission.
- We have received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accounting firm’s communications with the Audit Committee concerning independence, and have discussed with the independent registered public accounting firm 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, 2025 for filing with the Securities and Exchange Commission.

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 Securities Exchange Act of 1934, as amended, except to the extent that Seneca Bancorp specifically incorporates this information by reference, and shall not otherwise be deemed filed under such Acts.

This report has been provided by the Audit Committee:

Kimberly Boynton (Chairperson)
Michael Duteau
Mark Zames

Transactions With Certain Related Persons

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 Seneca Savings Bank. The Sarbanes-Oxley Act 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 Seneca Savings Bank's directors and officers are made in conformity with the Federal Reserve Act and applicable regulations. Federal regulations permit executive officers and directors to receive the same terms that are widely available to other employees as long as the executive officer or director is not given preferential treatment compared to other participating employees. Seneca Savings Bank makes certain loans to its directors, executive officers, employees, and family members of employees (excluding family members of directors, the Chief Executive Officer and the Chief Financial Officer) through an employee loan program pursuant to which loans are made at reduced rates. Specifically, consumer and home equity lines of credit are offered at a reduced rate of 100 basis points below market rates (50 basis points for family members), home equity loans are offered at a reduced rate of 50 basis points below market rates (25 basis points for family members), and mortgage loans are offered at a reduced rate of 25 basis points below market rates (no discount for family members). Since January 1, 2024, there has not been any outstanding loan to any executive officer or director of Seneca Savings Bank that was made at a reduced rate through the employee loan program that exceeded \$120,000.

Other than as described above with respect to certain loans made with reduced interest rates, all loans made by Seneca Savings Bank to executive officers, directors, immediate family members of executive officers and directors, or organizations with which executive officers and directors are affiliated, 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 loans to persons not related to Seneca Savings Bank, and did not involve more than the normal risk of collectability or present other unfavorable features. The aggregate amount of our loans to our executive officers and directors was \$851,000 at December 31, 2025. As of December 31, 2025, these loans were performing according to their original repayment terms.

Pursuant to our Policy and Procedures for Approval of Related Person Transactions, the Audit Committee periodically reviews, no less frequently than twice a year, a summary of transactions in excess of \$25,000 with our directors, executive officers, and their family members, for the purpose of determining whether the transactions are within our policies and should be ratified and approved. Additionally, pursuant to our Code of Business Conduct and Ethics, all of our executive officers and directors must disclose any personal or financial interest in any matter that comes before Seneca Bancorp.

Charles Signs, Inc., a business owned by Director Hickey, received from Seneca Savings Bank payments totaling \$147,000 and \$77,000 during the years ended December 31, 2025 and 2024, respectively, for designing and installing various signs for Seneca Savings Bank.

Executive Compensation

Summary Compensation Table. The following table sets forth for the years ended December 31, 2025 and 2024, certain information as to the total remuneration paid by Seneca Savings Bank to Mr. Vitale, who served as President and Chief Executive Officer and our other two most highly compensated executive officers for the year ended December 31, 2025. Each individual listed in the table below is referred to as a “named executive officer.”

Name and Principal Position(s)	Year	Salary (\$)	Bonus (\$) ⁽¹⁾	Stock Awards (\$) ⁽²⁾	Non-Equity Incentive Plan Compensation (\$) ⁽³⁾	All Other Compensation (\$) ⁽⁴⁾	Total (\$)
Joseph Vitale President and Chief Executive Officer	2025	231,392	45,000	48,900	75,000	30,852	431,144
Vincent Fazio Executive Vice President and Chief Financial Officer	2025	160,833	20,000	48,900	10,000	28,566	268,299
Angelo Testani Senior Vice President of Commercial Lending	2025	168,155	—	—	18,000	50,811	236,966
	2024	155,422	3,000	—	3,000	21,943	183,365
	2024	145,468	—	—	18,000	26,016	189,484

- (1) The amounts in this column reflect a discretionary bonus made in recognition of the contributions of Messrs. Vitale and Fazio to the successful completion of Seneca Bancorp’s second-step conversion and stock offering and the completion of certain milestones in the expansion of the Bank’s branch network.
- (2) The amounts in this column represent the grant date fair value of the stock awards granted to named executive officers under the 2019 Equity Incentive Plan. The grant date fair value of the stock awards have been computed in accordance with the stock-based compensation accounting rules (FASB ASC Topic 718). Assumptions used in the calculations of these amounts are included in note 10 to our financial statements in our Annual Report on Form 10-K filed with the SEC on March 30, 2026.
- (3) Amounts in this column reflect the executive officers’ incentive compensation earned pursuant to the Seneca Savings Bank Annual Incentive Plan.
- (4) For 2025, the amounts in this column reflect what Seneca Savings Bank paid for, or reimbursed, the applicable named executive officer, as set forth in the following table:

Name	Year	Commissions	Supplemental Executive Retirement Plan (\$)	ESOP Contribution ^(a) (\$)	Life Insurance Imputed Income (\$)	Total (\$) ^(b)
Joseph Vitale	2025	—	28,648	1,925	279	30,852
Vincent Fazio	2025	—	26,985	1,157	424	28,566
Angelo Testani	2025	49,501	—	1,212	98	50,811

- (a) Represents the value of the shares of common stock allocated to each named executive officer’s ESOP account based on a fair market value of \$10.50 per share, which was the closing sales price for our common stock on the OTCQX Market on December 31, 2025.
- (b) No named executive officers received perquisites with an aggregate value of \$10,000 or more for the 2025 fiscal year.

Compensation Plans and Agreements

Employment Agreements. On April 6, 2017, Seneca Savings Bank entered into individual employment agreements with Joseph G. Vitale and Vincent J. Fazio, each of which had an initial term of three years. Each January 1st (the “Renewal Date”), the agreements renew for an additional year, so that the remaining term of agreements will be three years from the Renewal Date. In order for the agreements to renew, the disinterested members of the Board must, at least 30 days prior to the Renewal Date, conduct a comprehensive performance evaluation of each executive for purposes of determining whether to take action regarding the renewal of his employment agreement.

The base salaries established in the employment agreements may be increased, but not decreased (other than a decrease which is applicable to all senior officers). In addition to base salary, each executive will be entitled to participate in any bonus program and benefit plan made available to senior management employees, and will be reimbursed for all reasonable business expenses incurred.

In the event of each executive's involuntary termination of employment for reasons other than cause, disability or death, or in the event of his resignation for "good reason," (a "qualifying termination event"), the executive will receive a lump sum cash severance payment equal to the amount of base salary that he would have earned had he remained employed for the duration of his "benefit period." The benefit period is 12 months or, if greater, the remaining term of his agreement as of the executive's date of termination. In addition, each executive will be entitled to receive life insurance and non-taxable medical and dental insurance coverage substantially comparable to the coverage maintained by Seneca Savings Bank for the benefit period or, if earlier, until the date on which the executive becomes a full-time employee of another employer and receives comparable health and welfare benefits. For purposes of the employment agreements, "good reason" is defined as: (1) a material reduction in base salary or benefits (other than reduction by Seneca Savings Bank that is part of a good faith, overall reduction of such benefits applicable to all employees); (2) a material reduction in the executive's duties or responsibilities; (3) a relocation of the executive's principal place of employment by more than 50 miles from the executive's principal place of employment as of the initial effective date of the employment agreement; or (4) a material breach of the employment agreement by Seneca Savings Bank. In order to be entitled to the severance benefits set forth above, the executive will be required to execute, and not revoke, a release of claims against Seneca Savings Bank related to his employment.

If the executive's qualifying termination event occurs on or after the effective date of a change in control of Seneca Bancorp or Seneca Savings Bank, the executive will be entitled to (in lieu of the payments and benefits described in the previous paragraph) a severance payment equal to three times the executive's highest annual rate of base salary and bonus paid, or earned, during the calendar year of the change in control or either of the two calendar years immediately preceding the change in control. Such payment will be payable in a lump sum within 30 days following the executive's date of termination. In addition, Seneca Savings Bank (or its successor) will continue to provide the executive with life insurance and non-taxable medical and dental insurance coverage substantially comparable to the coverage provided to the executive immediately prior to his date of termination at no cost to the executive. Such continued coverage will cease upon the earlier of: (1) the date which is three years after the executive's date of termination; or (2) the date on which the executive becomes a full-time employee of another employer and receives comparable health and welfare benefits.

In addition, if the executive dies while employed, the executive's estate or beneficiary will be paid his base salary for one year following death, and his family will continue to receive non-taxable medical and dental coverage for one year after his death. The executive will not receive any additional compensation or benefits under his employment agreement in the event he becomes disabled.

Upon termination of employment (other than a termination in connection with a change in control), each executive will be required to adhere to one-year non-competition and non-solicitation covenants.

Annual Incentive Plan. Seneca Savings Bank adopted an annual bonus plan effective January 1, 2022 (the "Annual Incentive Plan"). The named executive officers participate in the Annual Incentive Plan, which provides each participant with a bonus opportunity depending on the level of achievement of certain performance objectives established by the compensation committee of Seneca Savings Bank for each individual participant for each year. The specific performance objectives are determined annually by the committee and are subject to change by the committee, but generally include objective performance targets focused on financial performance, profitability, growth, asset quality, and risk management, including, but not limited to, earnings per share, average past due and nonaccrual loans, local deposit growth, net income, return on average assets, return on equity, net loan growth, asset quality, efficiency ratio (including as compared to a peer group) and subjective, discretionary performance targets, such as particular qualitative factors for each participant, based on his or her duties for Seneca Savings Bank. Bonus awards are paid out no later than two and half months following the end of the applicable plan year, provided that the participant remains continuously employed with Seneca Savings Bank through the payment date.

Supplemental Executive Retirement Agreements. Seneca Savings Bank entered into individual supplemental executive retirement agreements with Messrs. Vitale and Fazio on June 20, 2016 (the "SERPs"). The SERPs are designed to provide non-qualified supplemental retirement income to Messrs. Vitale and Fazio as an incentive for their continued service with Seneca Savings Bank. The benefits payable under the SERPs described below are funded by the annuity contracts and life insurance policies owned by Seneca Savings Bank with respect to the lives of Messrs. Vitale and Fazio. The SERPs were amended on June 9, 2025.

Under the SERPs, as amended, upon retirement or other separation from service without cause (including due to death or disability) on or after attaining the normal retirement age (which is age 65 for Messrs. Vitale and Fazio), Messrs. Vitale and Fazio (or their beneficiaries) are each entitled to an annual benefit projected to equal to \$75,000 and \$15,000, respectively, provided the executive commences the benefit on the executive's normal retirement age (as set forth in the SERP). The benefit is payable in equal monthly installments for the executive's life with 15 years guaranteed (the "Normal Retirement Benefit"). In the event of the executive's termination of employment for any reason (other than for cause) on or after his early retirement age (which is age 50 for Mr. Vitale and age 61 for Mr. Fazio) but prior to his normal retirement age, the annual payment under the Normal Retirement Benefit would be reduced to a percentage equal to the accrued liability at the time of the executive's termination over the projected accrued liability as of normal retirement age (the "Early Retirement Benefit"). The Early Retirement Benefit is payable in equal monthly installments for the executive's life with 15 years guaranteed.

In the event of the executive's involuntary termination without cause, voluntary termination for "good reason," death or disability prior to his early retirement age, the executive (or his beneficiary) would be entitled to the amount accrued under the SERP as of the date of termination, as determined in accordance with generally accepted accounting principles (the "Accrued Benefit"). The Accrued Benefit is payable in a cash lump sum within 60 days following the executive's date of termination. If the executive voluntarily resigns without good reason prior to his early retirement age, he would receive no benefit under the SERP.

Notwithstanding the foregoing, upon the executive's termination of employment for any reason (except for cause) following a change in control of Seneca Savings Bank, the executive would be entitled to his Normal Retirement Benefit, regardless of his age on the date of termination, payable in equal monthly installments for life with 15 years guaranteed, commencing on the first day of the month following the executive's date of termination.

Seneca Savings Bank has elected to purchase annuities designed to provide a future source of funds for the lifetime retirement benefits provided under the SERPs. Accordingly, the actual amounts of the SERP benefits are directly based on the amount of the annuity payments set forth in riders attached to the SERPs.

Executive Split Dollar Agreements. Seneca Savings Bank has entered into individual Executive Split Dollar Agreements with Messrs. Vitale and Fazio. Under the agreements, each executive's designated beneficiary is entitled to share in the proceeds under a life insurance policy owned by Seneca Savings Bank in the event of the executive's death. If the executive's death occurs while employed with Seneca Savings Bank, the death benefit payable to the executive's designated beneficiary is equal to the lesser of: (1) \$300,000 for Mr. Vitale and \$200,000 for Mr. Fazio; or (2) the net death benefit (which is the difference between the cash surrender value of the policy and the total proceeds payable under the policy upon the death of the insured). If Mr. Vitale's death occurs after his date of termination (other than for cause) and he has at least 10 years of service with Seneca Savings Bank, the death benefit payable would decrease to the lesser of: (1) \$25,000; or (2) the net death benefit (the "Reduced Benefit"). If Mr. Fazio's death occurs after his date of termination (other than for cause) and he has at least seven years of service with Seneca Savings Bank, the death benefit payable would decrease to the Reduced Benefit.

If the executives terminate employment without having met their respective age and years of service requirements described above or terminate employment due to cause, then their designated beneficiaries will not be entitled to any death benefit under their agreements.

Pension Plan. Seneca Savings Bank maintains the Pension Plan for Employees of Seneca Savings Bank, a qualified noncontributory defined benefit plan (the "pension plan") for employees. Employees of Seneca Savings Bank hired prior to January 1, 2018 who attained age 21 and completed one year of service are eligible to accrue benefits under the pension plan. Employee hired on or after January 1, 2018 are not eligible to participate in the pension plan.

Contributions to the pension plan are made in order to satisfy the actuarially determined minimum funding requirements according to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). A participant will become 100% vested in his or her accrued benefit under the plan after five years of service with Seneca Savings Bank.

Upon attainment of the normal retirement date (the later of age 65 or the fifth anniversary of participation in the plan), a participant is entitled to receive the normal retirement benefit, which is an annual benefit calculated by multiplying the participant's average annual compensation up to the integration level by 1.4% for each year of credited service up to 30 years, plus multiplying the participant's average annual compensation in excess of the "integration level" by 1.9% of each year of credited service up to 30 years. The "integration level" for the pension plan is a 35-year average of the taxable wage bases published by the Social Security Administration. If a participant terminates employment prior to his or her normal retirement date, the participant would be entitled to the vested portion of his or her accrued benefit as of the date of termination. The normal form of payment of the normal retirement benefit is a 50% joint and survivor annuity for a married participant or a single life annuity for a participant who is not married. If a participant dies while the participant is still employed by Seneca Savings Bank or if the participant dies after he retires or terminates employment but before benefit payments start, the surviving spouse will be entitled to a life annuity based on the value of the participant's vested accrued benefit.

Equity Incentive Plan. Seneca Bancorp has adopted the Seneca Bancorp, Inc. 2019 Equity Incentive Plan (the "Equity Plan"), which was approved by stockholders in 2019. Subject to permitted adjustments for certain corporate transactions, the Plan authorizes the issuance or delivery to participants of up to 131,463 shares of Seneca Bancorp common stock pursuant to grants of incentive and non-qualified stock options, restricted stock awards and restricted stock units. Of this number, the maximum number of shares of Seneca Bancorp common stock that may be issued under the Equity Plan pursuant to the exercise of stock options is 93,903 shares, and the maximum number of shares of Seneca Bancorp common stock that may be issued as restricted stock awards or restricted stock units is 37,560 shares. As of December 31, 2025, there were 4,183 restricted stock awards or units and 33,683 stock options that remain available for future grants under the Equity Plan.

Employee Stock Ownership Plan. The ESOP is a tax-qualified plan that covers substantially all employees, including the named executive officers, who have at least one year of service with Seneca Savings Bank and have attained age 21.

The ESOP trustee holds shares of Seneca Bancorp common stock in a suspense account purchased with the proceeds of a loan from Seneca Bancorp. As the loan is repaid, principally through Seneca Savings Bank's discretionary contributions to the ESOP, over the 25-year term of the loan, the shares are released from collateral as payments on the loan are made and allocated to the accounts of active participants on the basis of each participant's proportional share of plan compensation relative to all participants. Participants vest in their account balances at 20% after two years of service and 20% for each subsequent year of service until fully vested after six years of service. Participants will also become fully vested upon normal retirement, death or disability, a change in control, or termination of the ESOP. Generally, participants will receive distributions from the ESOP upon separation from service in accordance with the terms of the plan document. The ESOP reallocates any unvested forfeited shares among the remaining participants.

401(k) Plan. The Seneca Savings Bank tax-qualified 401(k) plan is maintained for employees, including the named executive officers, who are employed on the first month following their initial date of employment. Eligible employees may make pre-tax contributions to the 401(k) Plan in the form of salary deferrals of up to 100% of their total annual compensation subject to certain IRS limitations.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth information regarding stock awards and stock options outstanding for each of our named executive officers at December 31, 2025.

Name	Grant Date	Option Awards ⁽⁴⁾				Stock Awards ⁽⁴⁾	
		Number of Securities Underlying Unexercised Options Exercisable ⁽¹⁾ (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested ⁽²⁾ (#)	Market Value of Shares or Units of Stock That Have Not Vested ⁽³⁾ (\$)
Joseph Vitale	08/16/2019	4,842	—	9.20	08/16/2029	—	—
	05/19/2020	1,695	—	6.52	05/19/2030	—	—
	06/18/2021	3,874	968	9.75	06/18/2031	—	—
	05/17/2022	—	—	—	—	1,937	20,339
	05/16/2023	—	—	—	—	2,905	30,503
	11/21/2025	—	—	—	—	5,000	52,500
Vincent Fazio	08/16/2019	4,842	—	9.20	08/16/2029	—	—
	05/19/2020	1,695	—	6.52	05/19/2030	—	—
	06/18/2021	1,937	484	9.75	06/18/2031	—	—
	05/17/2022	—	—	—	—	1,162	12,201
	05/16/2023	—	—	—	—	1,734	18,207
	11/21/2025	—	—	—	—	5,000	52,500
Angelo Testani	08/16/2019	2,421	—	9.20	08/16/2029	—	—
	05/19/2020	484	—	6.52	05/19/2030	—	—
	06/18/2021	388	97	9.75	06/18/2031	—	—
	05/17/2022	—	—	—	—	387	4,064
	05/16/2023	—	—	—	—	581	6,101

- (1) Options vest 20% per year over five years commencing on the first anniversary of the grant date.
- (2) The restricted stock awards granted vest 20% per year commencing on the first anniversary of the grant date.
- (3) Market value is calculated on the basis of \$10.50 per share, which was the closing sales price for our common stock on the OTCQX Market on December 31, 2025.
- (4) Option amounts, share amounts and the option exercise prices have been adjusted to give retroactive recognition to the 0.9684 exchange ratio applied in the second-step conversion offering.

Policies and Practices Related to the Grant of Stock Options

The Compensation Committee and the Board have a historical practice of not granting stock options to executive officers during closed quarterly trading windows as determined under Seneca Bancorp’s insider trading policy. Consequently, we have not granted, and do not expect to grant, any stock options to any named executive officers within four business days preceding or one business after the filing with the SEC of any report on Forms 10-K, 10-Q or 8-K that discloses material non-public information. The Compensation Committee and the Board do not take material non-public information into account when determining the timing of equity awards and do not time the disclosure of material non-public information in order to impact the value of executive compensation. We did not grant any stock options to our executive officers, including the named executive officers, during the year ended December 31, 2025.

Pay Versus Performance

We are required by the Securities and Exchange Commission (the “SEC”) rules to disclose the following information regarding compensation paid to our named executive officers and the relationship between “Compensation Actually Paid,” which is calculated in accordance with SEC rules, to our principal executive officer (“PEO”) and to our named executive officers other than the PEO (“Non-PEO NEOs”) and certain financial performance measures of the Company, including total shareholder return (“TSR”) and net income.

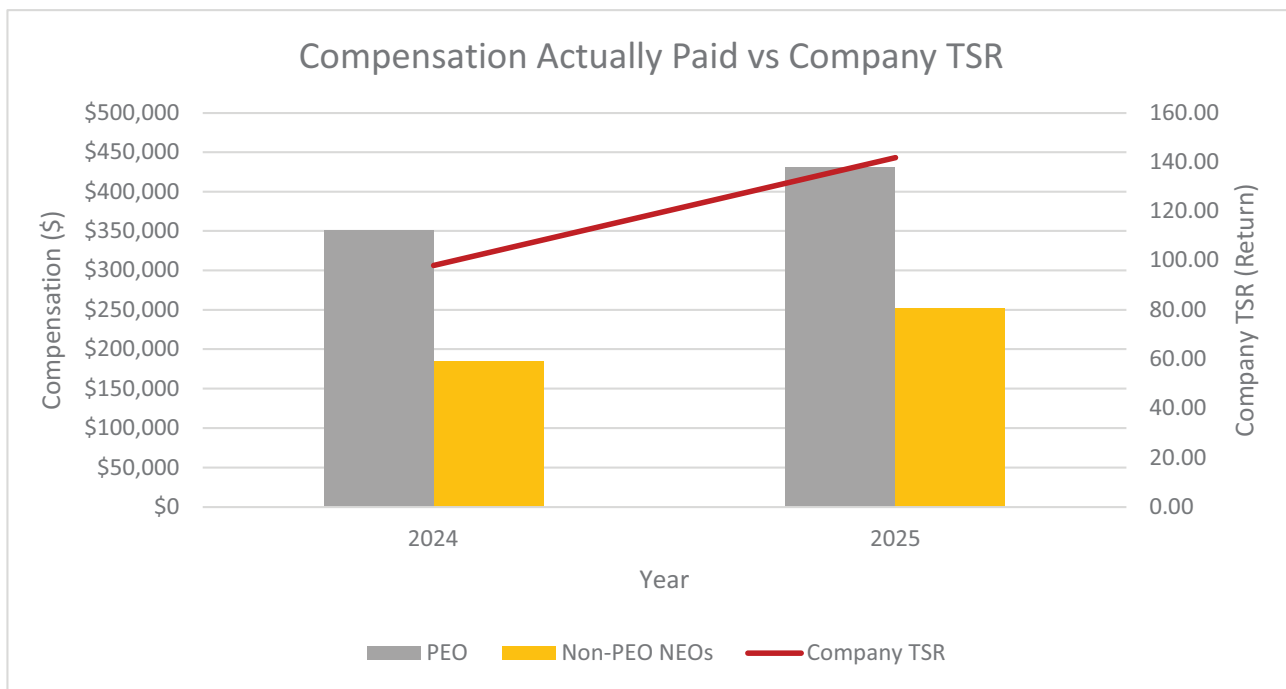
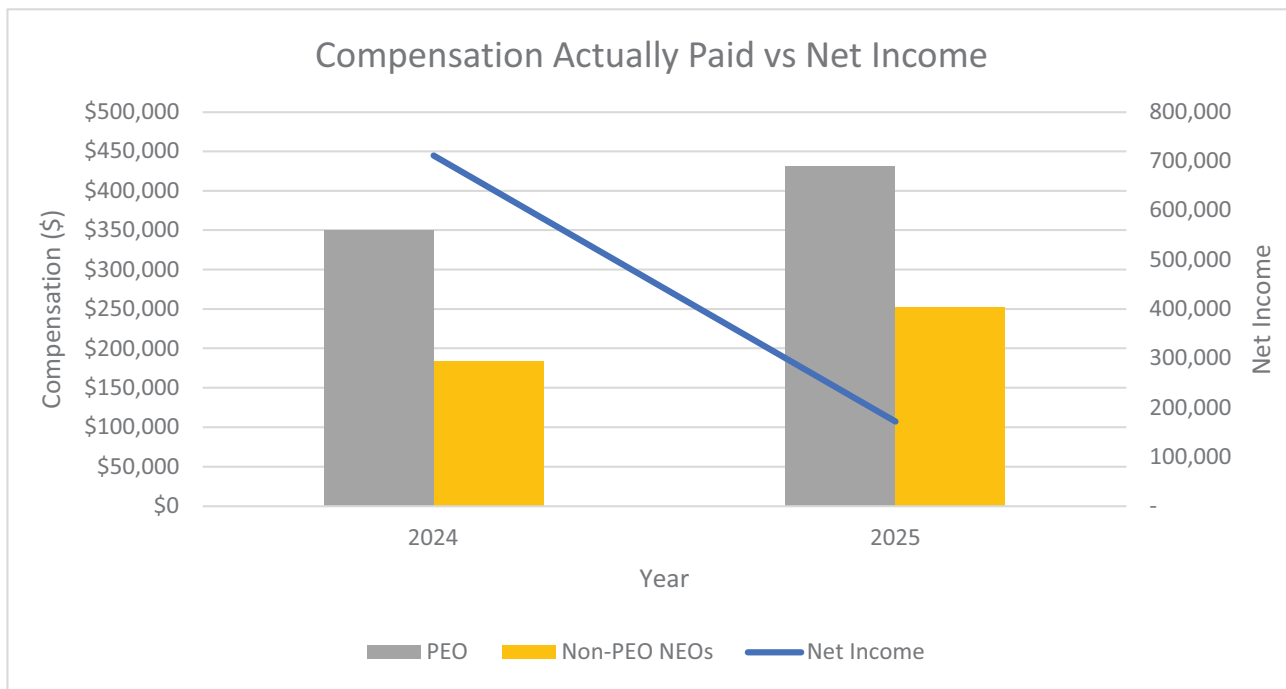
The following table sets forth the Compensation Actually Paid to the Company's PEO and the average Compensation Actually Paid to the Company's Non-PEO NEOs for fiscal years 2025 and 2024. In addition, the table provides our cumulative Total Shareholder Return ("TSR") and Net Income.

<u>Year</u>	<u>Summary Compensation Table Total for PEO⁽¹⁾</u>	<u>Compensation Actually Paid to PEO⁽⁵⁾</u>	<u>Average Summary Compensation Table Total for Non-PEO NEOs⁽²⁾</u>	<u>Average Compensation Actually Paid to Non-PEO NEOs⁽⁵⁾</u>	<u>Value of Initial Fixed \$100 Investment Based On Total Shareholder Return⁽³⁾</u>	<u>Net Income (Loss)⁽⁴⁾</u>
2025 . . .	\$ 431,144	\$ 465,252	\$ 252,633	\$ 266,230	\$ 142	\$ 172,000
2024 . . .	355,067	350,637	186,425	184,405	98	712,000

- (1) For the period covered in the table, our PEO was Joseph Vitale. The dollar amounts reported are the amounts of total compensation reported for each corresponding year in the "Total" column of the Summary Compensation Table for the PEO. Refer to "Executive Compensation—Summary Compensation Table."
- (2) For the period covered in the table, our Non-PEO NEOs were Vincent Fazio and Angelo Testani. The dollar amounts reported represent the average of the amounts reported for our Non-PEO NEOs as a group in the "Total" column of the Summary Compensation Table in each applicable year.
- (3) Total shareholder return value represents the Company's cumulative TSR based on an initial \$100 investment on December 31, 2023.
- (4) Net income (loss) is calculated in accordance with GAAP and reflects the amounts reported in the Company's Annual Report on Form 10-K for the applicable year.
- (5) The following table sets forth the adjustments made during each year represented in the table above to determine Compensation Actually Paid to our PEO and average Compensation Actually Paid to our Non-PEO NEOs:

<u>Year</u>	<u>Executive(s)</u>	<u>Summary Compensation Table Total</u>	<u>Minus Equity Awards from Summary Compensation Table</u>	<u>Plus Year-End Value of Unvested Awards Granted During the Year</u>	<u>Change in Value of Outstanding and Unvested Awards Granted in Prior Years</u>	<u>Change in Value of Prior Years' Awards Vested During Year</u>	<u>Compensation Actually Paid</u>
2025 . . .	PEO	\$ 431,144	\$ (48,900)	\$ 52,500	\$ 19,581	\$ 10,926	\$ 465,251
2025 . . .	Non-PEO NEOs	252,633	(24,450)	26,250	7,443	4,354	266,230
2024 . . .	PEO	355,067	—	—	(835)	(3,595)	350,637
2024 . . .	Non-PEO NEOs	186,425	—	—	(336)	(1,683)	184,406

Below are charts illustrating the relationship between the Compensation Actually Paid to the PEO and the average Compensation Actually Paid to the Non-PEO NEOs and the Company's TSR for 2025 and 2024 and the relationship between the Compensation Actually Paid to the PEO and the Average Compensation Actually Paid to the Non-PEO NEOs and the Company's Net Income for 2025 and 2024:



Directors' Compensation

Director Compensation Table. The following table sets forth information regarding compensation earned by our non-employee directors during the 2025 fiscal year.

Name	Fees Earned or Paid in Cash (\$) ⁽¹⁾	Options Awards (\$) ⁽²⁾	Nonqualified Deferred Compensation Earnings ⁽³⁾	Total (\$)
William LeBeau ⁽⁴⁾	36,014	—	—	36,014
Kimberly Boynton ⁽⁴⁾	34,289	2,240	—	36,529
Michael Duteau ⁽⁴⁾	32,437	13,440	—	45,877
James Hickey ⁽⁴⁾	35,764	—	—	35,764
Mark Zames ⁽⁴⁾	48,419	—	1,756	50,175

- (1) Includes retainer payments and committee and/or chairmanship fees earned for service with Seneca Savings Bank and Financial Quest, if applicable, during the fiscal year.
- (2) The amounts in this column represent the grant date fair value of the stock options granted to directors under the Seneca Bancorp, Inc. 2019 Equity Incentive Plan. The grant date fair value of the stock awards have been computed in accordance with the stock-based compensation accounting rules (FASB ASC Topic 718). Assumptions used in the calculations of these amounts are included in note 10 to our financial statements in our Annual Report on Form 10-K filed with the SEC on March 30, 2026.
- (3) This amount represents the earnings credited to the director's account under the Directors' Deferred Fee Plan in excess of 120% of the applicable federal rate during 2025.
- (4) The aggregate number of outstanding option awards as of December 31, 2025, which has been adjusted to reflect the 0.9684 exchange ratio applied in the second-step conversion offering, for each director was as follows (the non-employee directors did not have outstanding restricted stock awards):

Name	Options Exercisable	Options Unexercisable
William LeBeau	4,493	155
Kimberly Boynton	2,324	2,349
James Hickey	4,493	155
Mark Zames	3,564	1,084
Michael Duteau	—	4,800

2025 Director Compensation. Each person who serves as a director of Seneca Bancorp also serves as a director of Seneca Savings Bank and non-employee directors earn a monthly fee only in his capacity as a board or committee member of Seneca Savings Bank (no additional fees are paid for service on the Seneca Bancorp board of directors). Non-employee directors each earn an annual retainer of \$2,080 and a monthly fee of \$1,820 (or \$2,276 for the Chairman). Non-employee directors currently receive fees of \$275 (\$325 for the chair) per meeting for service on the loan, compensation, nominating and corporate governance or ALCO committees and \$325 (\$375 for the chair) per meeting for service on the audit committee. In addition, each non-employee director serving on the board of directors of Financial Quest, the wholly owned subsidiary of Seneca Savings Bank, receives a per meeting fee of \$275 (\$325 for the chair). The per meeting fee is reduced by half if the director attends by phone or electronically. Directors LeBeau, Boynton and Hickey serve on the board of directors of Financial Quest.

Director Deferred Fee Plan. On April 19, 2024, Seneca Savings Bank adopted the Seneca Savings Bank Director Deferred Fee Plan which allows directors to defer a portion of their director fees to the account, which is credited with interest at an annual rate equal to one percent above the prime rate reported by the Wall Street Journal as of the first day of the plan year (unless otherwise determined by the board). For 2025, the crediting rate was 8%. The director's account balance will be distributed upon the director's separation from service and will be paid in a lump sum or installments over five, ten, or fifteen year, in accordance with the director's timely election. In the event of a director's death or disability, the account balance shall be paid to the director (or the director's beneficiaries) in a lump sum.

Equity Plans. Our directors are eligible to participate in the Seneca Bancorp 2019 Equity Incentive Plan. For more information about the Equity Plans, see "Executive Compensation—Compensation Plans and Agreements—Equity Incentive Plan."

PROPOSAL II—RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of Seneca Bancorp has approved the engagement of Bonadio & Co., LLP to be our independent registered public accounting firm for the year ending December 31, 2026, subject to the ratification of the engagement by our stockholders. At the annual meeting, stockholders will consider and vote on the ratification of the Audit Committee’s engagement of Bonadio & Co., LLP for the year ending December 31, 2026. A representative of Bonadio & Co., LLP is expected to attend the annual meeting and may respond to appropriate questions and make a statement if he or she so desires.

Even if the engagement of Bonadio & Co., LLP is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such change would be in the best interests of Seneca Bancorp and its stockholders.

Set forth below is certain information concerning aggregate fees billed for professional services rendered by Bonadio & Co., LLP for the years ended December 31, 2025 and 2024.

	<u>Year Ended</u> <u>December 31, 2025</u>	<u>Year Ended</u> <u>December 31, 2024</u>
Audit Fees	\$ 203,500	\$ 62,347
Tax Fees	\$ 19,000	\$ 18,000
All Other Fees	\$ —	\$ —

Audit Fees. Audit Fees include the aggregate fees billed for each of the last two fiscal years for professional services rendered for the audit of our annual financial statements and review of financial statements included in our Form 10-Q or services that are normally provided in connection with statutory and regulatory filings or engagements for those fiscal years. During the year ended December 31, 2025, audit fees also consisted of fees for services related to the “second-step” conversion and the related stock offering, including review of the registration statement and prospectus, the issuance of consents, participation in drafting sessions and the preparation of a comfort letter.

Tax Fees. During the years ended December 31, 2025 and 2024, tax fees billed by Bonadio & Co., LLP were \$19,000 and \$18,000, respectively for tax preparation services.

Policy on Audit Committee Pre-Approval of Audit and Non-Audit Services of Independent Registered Public Accounting Firm

The Audit Committee has considered whether the provision of non-audit services, which relate primarily to tax services is compatible with maintaining the independence of Bonadio & Co., LLP. The Audit Committee concluded that performing such services does not affect the independence of Bonadio & Co., LLP in performing its function as our independent registered public accounting firm.

The Audit Committee’s current policy is to pre-approve all audit and non-audit services provided by the independent registered public accounting firm, either by approving an engagement prior to the engagement or pursuant to a pre-approval policy with respect to particular services, subject to the *de minimus* exceptions for non-audit services described in Section 10A(i)(1)(B) of the Securities Exchange Act of 1934, as amended. These services may include audit services, audit-related services, tax services and other services. The Audit Committee may delegate pre-approval authority to one or more members of the Audit Committee when expedition of services is necessary. The independent registered public accounting firm and management are required to periodically report to the full Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date. The Audit Committee pre-approved 100% of audit-related and tax fees billed and paid during the year ended December 31, 2025, as indicated in the table above.

The Board of Directors recommends a vote “FOR” the ratification of Bonadio & Co., LLP as independent registered public accounting firm for the year ending December 31, 2026.

PROPOSAL III—ADVISORY VOTE ON NAMED EXECUTIVE OFFICER COMPENSATION

The compensation of our Chief Executive Officer and our other most highly compensated executive officers (“NEOs”) is described in “PROPOSAL I — Election of Directors – Executive Compensation.” Stockholders are urged to read the Executive Compensation section of this Proxy Statement, which discusses our compensation policies and procedures with respect to our NEOs.

In accordance with Dodd-Frank and Section 14A of the Securities Exchange Act of 1934, we are providing Seneca Bancorp stockholders the opportunity to vote on a non-binding, advisory resolution to approve the compensation of our NEOs, which is described in the section titled “PROPOSAL I — Election of Directors – Executive Compensation” in this Proxy Statement. Accordingly, the following resolution will be submitted for a stockholder vote at the 2026 Annual Meeting:

“RESOLVED, that the stockholders of Seneca Bancorp, Inc. (the “Company”) approve, on an advisory basis, the overall compensation of the Company’s named executive officers, as described in the “PROPOSAL I—Election of Directors—Executive Compensation” section set forth in the Proxy Statement for this Annual Meeting.”

This advisory vote, commonly referred to as a “say-on-pay” advisory vote, is non-binding on the Company and the Board. However, the Board values constructive dialogue on executive compensation and other important governance topics with the Company’s stockholders and encourage all stockholders to vote their shares on this matter.

Approval of this resolution requires the affirmative vote of a majority of the votes cast at the Annual Meeting. While this vote is required by law, it will neither be binding on the Company or the Board, nor will it create or imply any change in the fiduciary duties of, or impose any additional fiduciary duty on, the Company or the Board. However, the Compensation Committee will take into account the outcome of the vote when considering future executive compensation decisions.

The Board of Directors recommends a vote “FOR” the resolution set forth in Proposal III.

PROPOSAL IV—ADVISORY VOTE ON THE FREQUENCY OF FUTURE ADVISORY VOTES ON NAMED EXECUTIVE OFFICER COMPENSATION

Under Dodd-Frank, in addition to providing stockholders with the opportunity to cast an advisory vote on executive compensation, we are required to include in this proxy statement and present at the annual meeting an advisory non-binding stockholder vote on whether an advisory vote on NEO compensation should be held every year, every two years or every three years.

After considering the practices by other companies in this area, the Board and Compensation Committee believe that holding an advisory vote on NEO compensation each year is the optimal interval for conducting and responding to a say on pay vote.

Stockholders have the opportunity to choose among four options (holding the advisory vote on NEO compensation every year, every two years, every three years or abstaining) and, therefore, stockholders will not be voting to approve or disapprove the Board’s recommendation.

Although this advisory vote on the frequency of the say on pay vote is advisory and nonbinding, the Board and the Compensation Committee will take into account the outcome of the vote when considering the frequency of future advisory votes on NEO compensation.

The Board of Directors recommends a vote FOR “ONE YEAR” as set forth in Proposal IV.

STOCKHOLDER PROPOSALS AND NOMINATIONS

In order to be eligible for inclusion in the proxy materials for our 2027 Annual Meeting of Stockholders, any stockholder proposal to take action at such meeting must be received at Seneca Bancorp's executive office, 35 Oswego Street, Baldwinsville, New York 13027, no later than December 18, 2026, which is 120 days prior to the anniversary of the date we expect to mail these proxy materials. If the date of the 2027 Annual Meeting of Stockholders is changed by more than 30 days, any stockholder proposal must be received at a reasonable time before we print or mail proxy materials for such meeting. Any such proposals shall be subject to the requirements of the proxy rules adopted under the Securities Exchange Act of 1934.

Under SEC Rule 14a-19, a stockholder intending to engage in a director election contest with respect to the Seneca Bancorp annual meeting of stockholders to be held in 2027 must give Seneca Bancorp notice of its intent to solicit proxies by providing the names of its nominees and certain other information at least 60 calendar days before next year's annual meeting. This deadline is March 19, 2027.

In addition to the requirement set forth under SEC Rule 14a-19, Seneca Bancorp's 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, Seneca Bancorp's Secretary must receive written notice not less than 90 days nor more than the 100 days before the anniversary of the prior year's annual meeting of stockholders; provided, however, that in the event the date of the annual meeting is advanced more than 30 days before the anniversary of the preceding year's annual meeting, then, to be timely, notice by the stockholder must be so received no earlier than the day on which public disclosure of the date of such annual meeting is first made and not later than the tenth day following the earlier of the day notice of the meeting was mailed to stockholders or such public disclosure was made.

The notice with respect to stockholder proposals that are not nominations for director must set forth as to each matter such stockholder proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting; (ii) the name and address of such stockholder as they appear on Seneca Bancorp's books and of the beneficial owner, if any, on whose behalf the proposal is made; (iii) the class or series and number of shares of capital stock of Seneca Bancorp which are owned beneficially or of record by such stockholder and such beneficial owner; (iv) a description of all arrangements or understandings between such stockholder and any other person or persons (including their names) in connection with the proposal of such business by such stockholder and any material interest of such stockholder in such business; and (v) a representation that such stockholder intends to appear in person or by proxy at the annual meeting to bring such business before the meeting.

The notice with respect to director nominations must include: (a) as to each person whom the stockholder proposes to nominate for election as a director, (i) all information relating to such person that would indicate such person's qualification to serve on the Board of Directors of Seneca Bancorp; (ii) an affidavit that such person would not be disqualified under the provisions of Article II, Section 12 of Seneca Bancorp's Bylaws; (iii) such information relating to such person that is required to be disclosed in connection with solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act, or any successor rule or regulation; and (iv) a written consent of each proposed nominee to be named as a nominee and to serve as a director if elected; and (b) as to the stockholder giving the notice: (i) the name and address of such stockholder as they appear on Seneca Bancorp's books and of the beneficial owner, if any, on whose behalf the nomination is made; (ii) the class or series and number of shares of capital stock of Seneca Bancorp which are owned beneficially or of record by such stockholder and such beneficial owner; (iii) a description of all arrangements or understandings between such stockholder and each proposed nominee and any other person or persons (including their names) pursuant to which the nomination(s) are to be made by such stockholder; (iv) a representation that such stockholder intends to appear in person or by proxy at the meeting to nominate the persons named in its notice; (v) whether such stockholder intends to solicit proxies in support of director nominees other than Seneca Bancorp's nominees in accordance with the Exchange Act and the rules and regulations promulgated thereunder; and (vi) any other information relating to such stockholder that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors pursuant to Regulation 14A under the Exchange Act or any successor rule or regulation.

The 2027 annual meeting of stockholders is expected to be held May 18, 2027. Advance written notice for certain business, or nominations to the Board of Directors, to be brought before the next annual meeting must be given to us no earlier than February 7, 2027 and no later than February 17, 2027. If notice is received before February 7, 2027 or after February 17, 2027, it will be considered untimely, and we will not be required to present the matter at the stockholders meeting.

Nothing in this proxy statement 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.

OTHER MATTERS

The Board of Directors is not aware of any business to come before the annual meeting other than the matters described above in the Proxy Statement. However, if any matters should properly come before the annual meeting, it is intended that the Board of Directors, as holders of the proxies, will act as determined by a majority vote.

MISCELLANEOUS

A COPY OF SENECA BANCORP'S ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 2025 WILL BE FURNISHED WITHOUT CHARGE TO STOCKHOLDERS AS OF THE RECORD DATE UPON WRITTEN REQUEST TO THE CORPORATE SECRETARY, 35 OSWEGO STREET, BALDWINSVILLE, NEW YORK 13027 OR BY CALLING (315) 638-0233.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

Seneca Bancorp's Proxy Statement, including the Notice of the Annual Meeting of Stockholders, and the 2025 Annual Report are each available on the Internet at <http://www.astproxyportal.com/ast/29799>.

By Order of the Board of Directors



Jamie Nastri
Corporate Secretary

Baldwinsville, New York
April 17, 2026