Howard Bancorp Inc Form 10-K March 27, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

Commission file number: 001-35489

HOWARD BANCORP, INC.

(Exact name of registrant as specified in its charter)

Maryland20-3735949State or other jurisdiction(I.R.S. Employerof incorporation or organizationIdentification No.)

6011 University Blvd. Suite 370, Ellicott City, MD21043(Address of principal executive offices)(Zip Code)

(410) 750-0020

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange
	on which registered
Common Stock, par value \$0.01 per share	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act Yes " No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes " No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No⁻⁻

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No "

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a small reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "small reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer " Accelerated filer " Non-accelerated filer " Smaller reporting company x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes "No x

The aggregate market value of the voting common stock of the registrant held by non-affiliates on June 30, 2014, was approximately \$29.5 million. At March 26, 2015, the number of outstanding shares of Common Stock, \$0.01 par value, of the Corporation was 4,147,633.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive Proxy Statement for the 2015 Annual Meeting of Stockholders.

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As used in this report, "the Company," "we," "us," and "ours" refer to Howard Bancorp, Inc. and its subsidiaries. References to the "Bank" refer to Howard Bank.

This report contains forward-looking statements, which can be identified by the use of words such as "estimate," "project," "believe," "intend," "anticipate," "plan," "seek," "expect," "will," "may," "should" and words of similar meaning. You can als them by the fact that they do not relate strictly to historical or current facts.

These forward-looking statements include, but are not limited to:

statements of our goals, intentions and expectations, particularly with respect to our business plan and strategies, •including the expected opening of our new Columbia, Maryland branch, branch expansion and closures, market share and asset growth, revenue and profit growth and expanding client relationships;

- statements with respect to our pending merger with Patapsco Bancorp, Inc., including the expected timing of and impact of the merger, including that we expect the merger to be accretive to earnings in the first year
 - after closing and expected increases in non-interest expenses resulting from the merger;

acquisition intensions outside of the pending merger with Patapsco Bancorp, Inc.; statements regarding the asset quality of our investment portfolios and anticipated recovery and collection of unrealized losses on securities available for sale;

 statements with respect to our allowance for credit losses, and the adequacy thereof; statement with respect to having adequate liquidity levels; our belief that we will retain a large portion of maturing certificates of deposit; the impact on us of recent changes to accounting standards; future cash requirements relating to commitments to extend credit; and the impact of interest rate changes on our net interest income.

These forward-looking statements are based on our current beliefs and expectations and are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control. In addition, these forward-looking statements are subject to assumptions with respect to future business strategies and decisions that are subject to change. We are under no duty to and do not undertake any obligation to update any forward-looking statements after the date of this report.

The following factors, among others, could cause actual results to differ materially from the anticipated results or other expectations expressed in the forward-looking statements:

potential problems with or delays in connection with the pending merger with Patapsco Bancorp, as further discussed in "Item 1A. Risk Factors";

general economic conditions, either nationally or in our market area, that are worse than expected; competition among depository and other financial institutions;

inflation and changes in the interest rate environment that reduce our margins or reduce the fair value of financial instruments;

adverse changes in the securities markets;

changes in laws or government regulations or policies affecting financial institutions, including changes in regulatory fees and capital requirements;

our ability to enter new markets successfully and capitalize on growth opportunities, and to otherwise implement our growth strategy;

our ability to successfully integrate acquired entities, if any;

changes in consumer spending, borrowing and savings habits;

changes in accounting policies and practices, as may be adopted by the bank regulatory agencies, the Financial · Accounting Standards Board, the Securities and Exchange Commission and the Public Company Accounting Oversight Board;

changes in our organization, compensation and benefit plans loss of key personnel; and other risk discussed in this report.

Because of these and a wide variety of other uncertainties, our actual future results may be materially different from the results indicated by these forward-looking statements. You should not put undue reliance on any forward-looking statements.

Part I

Item 1. Business

Howard Bancorp, Inc.

Howard Bancorp, Inc. was incorporated in April 2005 under the laws of the State of Maryland and is a bank holding company registered under the Bank Holding Company Act of 1956. On May 18, 2005, the stockholders of Howard Bank approved the reorganization of Howard Bank into a holding company structure. The reorganization became effective on December 15, 2005. In connection with the reorganization, (i) Howard Bank became our wholly-owned subsidiary, (ii) each outstanding share (or fraction thereof) of Howard Bank common stock was converted into two shares (or fraction thereof) of our common stock, and the former holders of Howard Bank common stock became the holders of all our outstanding shares, and (iii) warrants and options to purchase shares of Howard Bank common stock became options and warrants to purchase Howard Bancorp stock and were adjusted to reflect the exchange of two shares of our common stock for each share of the Bank's common stock.

We completed our initial public offering in July 2012, issuing 1,150,891 shares of our common stock. Simultaneously with our initial public offering we completed a private placement pursuant to which we sold 568,603 shares of our common stock.

The Company's primary business is owning all of the capital stock of Howard Bank. In addition to regulation of the Bank, as a bank holding company registered under the Bank Holding Company Act of 1956, we are subject to regulation and review by the Federal Reserve. See "— Supervision and Regulation."

As we have previously announced, on March 2, 2015, we entered into an Agreement and Plan of Merger to acquire Patapsco Bancorp, Inc., the parent company of Patapsco Bank. Assuming the requisite approval of our stockholders and the stockholders of Patapsco Bancorp and the satisfaction of other conditions to closing, including regulatory approval, we expect the merger to close in the third or fourth quarter of 2015. This merger will result in an institution with pro forma assets of approximately \$1.0 billion. We expect the merger to be accretive to earnings in the first year after closing. Also on March 2, 2015 we entered into agreements with several institutional investors pursuant to which the investors will purchase an aggregate of 2,173,913 shares of our common stock at a purchase price of \$11.50 or an aggregate of \$24,999,999.50, subject to approval of our stockholders and the satisfaction of certain other closing conditions as set forth in the agreements. For additional information regarding the pending merger and the stock offering, please see Note 24 to our consolidated financial statements included in this report and our Current Report on Form 8-K as filed with the U.S. Securities Exchange Commission ("SEC') on March 3, 2015.

Howard Bank

Howard Bank is a trust company chartered under Subtitle 2 of Title 3 of the Financial Institutions Article of the Annotated Code of Maryland. The Bank was formed in March 2004 and commenced banking operations on August 9, 2004. Howard Bank has chosen, for the time being, not to seek and exercise trust powers, and our business, powers and regulatory structure are the same as a Maryland-chartered commercial bank. The Bank is subject to regulation, supervision and regular examination by the Maryland Commissioner of Financial Regulation and the Federal Deposit Insurance Corporation ("FDIC"), and our deposits are insured by the FDIC. The Bank has four operating subsidiaries, three of which hold foreclosed real estate and the other of which owns and manages real estate that we use for one of our branch locations and that also contains office and retail space.

Howard Bank is headquartered in Ellicott City, which is located in Howard County, Maryland. The Bank has branches in Howard County as well as in Anne Arundel County, Baltimore County, Cecil, and Harford County in Maryland as well as one branch in Lancaster County, Pennsylvania. We engage in a general commercial banking business, making various types of loans and accepting deposits. We have traditionally marketed our financial services to small and medium sized businesses and their owners, professionals and executives, and high-net-worth individuals (the "mass affluent"), and have recently expanded to meet the financial needs of consumers generally.

Our core business strategy involves delivering advice and superior customer service to clients through local decision makers. We combine the Bank's specialized focus on both local markets and small and medium-sized business related market segments with a broad array of products, new technology and seasoned banking professionals to position the Bank differently from most competitors. Our experienced executives establish a relationship with each client and bring value to all phases of a client's business and personal banking needs. To develop this strategy, we have established long-standing relationships with key customers in the community and with local business leaders who can create business opportunities.

Our primary source of revenue is net interest income, with fees generated by lending, mortgage banking and depository service charges constituting a smaller, but growing, percentage of revenues. We have positioned the balance sheet to hold a high percentage of earning assets and, in turn, to have those earning assets dominated by loans rather than investment securities. Generally speaking, loans earn more attractive returns than investments and are a key source of product cross sales and customer referrals. Certain economic conditions may favor investments over loans, such as poor corporate earnings, downturns in real estate cycles and other general slowing economic conditions. At all times, our loan and investment strategies seek to balance the need to maintain adequate liquidity via excess cash or federal funds sold with opportunities to appropriately leverage our capital.

Our strategic plan focuses on enhancing stockholder value through market share growth as reflected in balance sheet growth, related revenue growth and resulting growth in operating profits. We continue to expand our branch locations both through opening new branches and acquiring branch offices via acquisition. In 2014 we opened a de novo branch in Bel Air, Maryland, acquired a branch in Havre de Grace, Maryland, and added five new locations with our FDIC-assisted acquisition of NBRS Financial Bank. In addition to the branches we expect to acquire in the Patapsco Bancorp merger, we plan to open additional branches in the counties where we now operate and contiguous counties over the next several years, however, other than a new location in Columbia, Maryland that we expect will open in 2016 and the pending Patapsco Bancorp merger, we currently have no definitive plans or agreements in place with respect to any other additional branches. Our long-term vision includes supplementing our historically organic growth with strategically significant acquisitions. We believe that acquiring other financial institutions - in whole or in part (through business line spin-offs, branch sales or the hiring of teams of individuals) will allow us to expand our market, achieve certain operating efficiencies, and grow our stockholder base and thus our share value and liquidity. We believe that our demonstrated expertise in commercial lending, deposit gathering (especially non-interest bearing transactional deposits) and community leadership positions us as an attractive acquirer. We also anticipate that increasing our capital levels will give us the ability to continue our organic asset growth and expand our relationships with key clients through a larger legal lending limit.

Our Market Area

Our headquarters are located in Ellicott City, Maryland, and we consider our primary market area to be the Greater Baltimore Metropolitan Area in Maryland. We also have loans in our loan portfolio that are outside our market area, although to grow our loan portfolio we do not actively solicit business outside our primary market.

We have thirteen full services branches, located throughout Howard County, Annapolis, Towson, Harford County, Cecil County and Lancaster, Pennsylvania.

HOWARD COUNTYSnowden RiverMaple LawnCentennial Place6011 University Blvd.10985 Johns Hopkins Rd. 10161 Baltimore National Pk.

Suite 150 Laurel, MD 20723 Ellicott City, MD 21043 Ellicott City, MD 21042

ANNE ARUNDEL COUNTY

Defense Highway 116 Defense Hwy. Annapolis, MD 21401

BALIMORE COUNTY

Towson 22 W Pennsylvania Ave. Towson, MD 21204

HARFORD COUNTY

AberdeenBel AirHavre de Grace3 West Bel Air Ave.101 N. Main St.800 Revolution St.Aberdeen, MD 21001Bel Air, MD 21014Havre de Grace, MD 21078

DublinAberdeen 23535 Conowingo Rd.201 W. Bel Air Ave.Street, MD 21154Aberdeen, MD 21001

CECIL COUNTY

Rising SunElkton6 Pearl St.305 Augustine Herman Hwy.Rising Sun, MD 21911Elkton, MD 21921

LANCASTER COUNTY, PA

Penn Hill 2006 Lancaster Pike Peach Bottom, PA 17563

Competitive Position

We believe that our position as a community bank with nearly \$700 million in assets positions us well to navigate the current economic environment, ongoing market consolidation and heightened regulatory environment. Our formation in 2003 and 2004 has positioned us to take advantage of the ability to outsource certain activities (internal audit, compliance review, information security monitoring) and to source new products and services (check imaging, online banking) in a highly efficient manner and thus avoid the risk of impairment of operating earnings faced by some older small banks who, we believe, are locked into legacy systems and are finding the onslaught of new regulations challenging. Strategic partnerships for these outsourced activities include contractual relationships with some of the largest and strongest providers of item processing, data processing, information monitoring and payments systems alternatives. We believe that this provides the Bank with the best of technology and product selection without

sacrificing the more intimate delivery advantages of a community bank. We believe the current economic and regulatory environment will lead to greater consolidation among financial institutions, including community banks. Some of that consolidation will occur with larger banks, thus exacerbating the scarcity of banks able to underwrite traditionally and offer advice in interactions with customers as we do, which we believe gives us a wider window of opportunity to extend our brand and value proposition. We believe, however, that to the extent some of that consolidation occurs between and among smaller banks, the resulting combined institutions will be better positioned to differentiate themselves.

We believe that our "Hands On" approach to delivering small and medium-sized businesses a very broad and deep array of competitive credit and cash management services through a team of experienced advisors and providing them with access to local policy and decision makers fills a "white space" between the sophisticated but distracted large banks whose best personnel work with the largest companies and the small banks who are very responsive but less capable of being proactive in providing advice. Relationship managers, team leaders and executive management at the Bank generally have decades of banking experiences and are well established in the communities that they serve. They are able to interface with clients directly to share that experience and to provide connections with their own network of other specialized advisors. We believe we also benefit from our committed leadership at both the executive management and board level who bring a broad array of skills and experiences to our company and are able to position the Bank for consistent profitable growth.

Lending Activities

General

Our primary market focus is on making loans to and gathering deposits from small and medium size businesses and their owners, professionals and executives, and high-net-worth individuals in our primary market area. Our loans are made to customers primarily in the Greater Baltimore market. Our lending activities consist generally of short to medium term commercial lending, commercial mortgage lending for both owner occupied and investor properties, residential mortgage lending and consumer lending, both secured and unsecured. A substantial portion of our loan portfolio consists of loans to businesses secured by real estate and/or other business assets.

Credit Policies and Administration

We have adopted a comprehensive lending policy, which includes stringent underwriting standards for all types of loans. Our lending teams follow pricing guidelines established periodically by our management team. In an effort to manage risk, only small lending authority is given to individual loan officers. Most loan officers can approve loans of up to \$50,000. Regional Executives and the Chief Credit Officer can approve loans up to \$250,000 and our President and Chief Executive Officer and our Chief Loan Officer can approve loans of up to \$500,000, or \$1,000,000 combined. Loans above these amounts but less than \$2 million must be reviewed and approved by an officers' loan committee. All credit decisions in excess of the officers' loan committee lending authority must be approved prior to funding by our board loan committee. Under the leadership of our executive management team, we believe that we employ experienced lending officers, secure appropriate collateral and carefully monitor the financial conditions of our borrowers and the concentration of loans in our portfolio.

In addition to the normal repayment risks, all loans in the portfolio are subject to the state of the economy and the related effects on the borrower and/or the real estate market. Generally, longer-term loans have periodic interest rate adjustments and/or call provisions. Senior management monitors the loan portfolio closely to ensure that we minimize past due loans and that we swiftly deal with potential problem loans.

Howard Bank also retains an outside, independent firm to review the loan portfolio. This firm performs a detailed annual review. We use the results of the firm's report primarily to validate the risk ratings applied to loans in the portfolio and identify any systemic weaknesses in underwriting, documentation or management of the portfolio. Results of the annual review are presented to executive management, the Audit Committee of the board and the full board of directors and are available to and used by regulatory examiners when they review the Bank's asset quality. We currently use the firm of Clifton Larsen Allen to perform this review.

The Bank maintains the normal checks and balances on the loan portfolio not only through the underwriting process but through the utilization of an internal credit administration group that both assists in the underwriting and serves as an additional reviewer of underwriting. The separately-managed loan administration group also has oversight for documentation, compliance and timeliness of collection activities. Our outsourced internal audit firm also reviews documentation, compliance and file management.

Commercial Lending

Our commercial lending consists of lines of credit, revolving credit facilities, accounts receivable and inventory financing, term loans, equipment loans, small business administration (SBA) loans, stand-by letters of credit and unsecured loans. We originate commercial loans for any business purpose, including the financing of leasehold improvements and equipment, the carrying of accounts receivable, general working capital, contract administration and acquisition activities. These loans typically have maturities of seven years or less. We have a diverse client base and we do not have a concentration of these types of loans in any specific industry segment. We generally secure commercial business loans with accounts receivable and inventory, equipment, indemnity deeds of trust and other collateral such as marketable securities, cash value of life insurance, and time deposits at Howard Bank. Commercial business loans have a higher degree of risk than residential mortgage loans because the availability of funds for repayment generally depends on the success of the business. To help manage this risk, we establish parameters/ covenants at the inception of the loan to provide early warning systems before payment default. We normally seek to obtain appropriate collateral and personal guarantees from the borrower's principal owners. We are able, given our business model, to proactively monitor the financial condition of the business.

Commercial Mortgage Lending

We finance commercial real estate for our clients, for both owner-occupied properties and investor properties (including residential properties). We generally will finance owner occupied commercial real estate at a maximum loan-to-value of 85% and non-owner occupied at a maximum loan-to-value of 80%. Our underwriting policies and processes focus on the underlying credit of the owner for owner occupied real estate and on the rental income stream

(including rent terms and strength of tenants) for non-owner occupied real estate as well as an assessment of the underlying real estate. Risks inherent in managing a commercial real estate portfolio relate to vacancy rates/ absorption rates for surrounding properties, sudden or gradual drops in property values as well as changes in the economic climate. We attempt to mitigate these risks by carefully underwriting loans of this type as well as by following appropriate loan-to-value standards. We are cash flow lenders and never rely solely on property valuations in reaching a lending decision. Personal guarantees are often required for commercial real estate loans as they are for other commercial loans. Most of our real estate loans carry fixed interest rates, amortize over 20 - 25 years but have five- to seven-year maturities. Properties securing our commercial real estate loans primarily include office buildings, office condominiums, distribution facilities and manufacturing plants. Substantially all of our commercial real estate loans are secured by properties located in our market area.

Commercial real estate loans generally carry higher interest rates and have shorter terms than one- to four-family residential mortgage loans. Commercial real estate loans, however, entail significant additional risks as compared with residential mortgage lending, as they typically involve larger loan balances concentrated with single borrowers or groups of related borrowers. In addition, the payment of loans secured by income-producing properties typically depends on the successful operation of the property, as repayment of the loan generally is dependent, in large part, on sufficient income from the property to cover operating expenses and debt service. Changes in economic conditions that are not in the control of the borrower or lender could affect the value of the collateral for the loan or the future cash flow of the property. Additionally, any decline in real estate values may be more pronounced for commercial real estate than residential properties.

Construction Lending

Construction lending can cover funding for land acquisition, land development and/or construction of residential or commercial structures. Our construction loans generally bear a variable rate of interest and have terms of one to two years. Funds are advanced on a percentage-of-completion basis. These loans are generally repaid at the end of the development or construction phase, although loans for commercial construction will often convert into a permanent commercial mortgage loans at the end of the term of the loan. Loan to value parameters range from 65% of the value of land to 75% for developed land, 80% for commercial or multifamily construction and 85% for residential construction. These loan-to-value ratios represent the upper limit of advance rates to remain in compliance with Bank policy. Typically, loan-to-value ratios should be somewhat lower than these upper limits, requiring the borrower to provide significant equity at the inception of the loan. Our underwriting looks not only at the value of the property but the expected cash flows to be generated by sale of the parcels or completed construction. The borrower must have solid experience in this type of construction and personal guarantees are usually required.

Construction lending entails significant risks compared with residential mortgage lending. These risks involve larger loan balances concentrated with single borrowers with funds advanced upon the security of the land or the project under construction. The value of the project is estimated prior to the completion of construction. Thus, it is more difficult to evaluate accurately the total loan funds required to complete a project and related loan to value ratios. If the estimate of construction or development cost proves to be inaccurate, we may be required to advance additional funds beyond the amount originally committed in order to protect the value of the property. Moreover, if the estimated value of the completed project proves to be inaccurate, the borrower may hold a property with a value that is insufficient to assure full repayment. To mitigate these risks, in addition to the underwriting considerations noted above, we maintain an in-house construction monitoring unit that has oversight for the projects and we require both site visits and frequent reporting before funds are advanced.

Residential Mortgage Lending

We offer a variety of consumer-oriented residential real estate loans. Residential mortgage loans consist primarily of first mortgage loans to individuals, most of which have a loan to value not exceeding 85%. The remainder of this portion of our portfolio consists of home equity lines of credit and fixed rate home equity loans.

Our residential mortgage loans are generally for owner-occupied single family homes. These loans are generally for a primary residence although we will occasionally originate loans for a second home where the borrower has extremely strong credit. Our residential mortgage loans are generally fixed rate loans with 15- or 30-year terms. We will also originate variable rate loans with a five- to seven-year term, although such loans have a longer amortization schedule.

Our home equity loans and home equity lines of credit are primarily secured by a second mortgage on owner occupied one-to four-family residences. Our home equity loans are originated at fixed interest rates and with terms of between five and 30 years for primary residences and between five and 15 years for secondary and rental properties, and are fully amortizing. Our home equity lines allow for the borrower to draw against the line for ten years, after which the line is refinanced into a ten-year fixed loan, with the possibility of a one-time extension of five years. Home equity lines of credit carry a variable rate of interest and minimum monthly payments during the draw period, which are the greater of (i) \$50.00 or (ii) depending on credit score, loan-to-value and debt-to-income ratios, either the interest due or interest due plus 1% of the outstanding loan balance. Home equity loans and lines of credit are generally underwritten with a maximum loan-to-value ratio of 85% (80% when appraised value is greater than \$1 million) for a primary residence when combined with the principal balance of the existing mortgage loan; for home equity loans on secondary and rental properties, the maximum loan-to-value ratio is 65%. We require appraisals on all real estate loans – both commercial and residential. At the time we close a home equity loans on lines of credit, we record a mortgage to perfect our security interest in the underlying collateral. Home equity loans and lines of credit also require title insurance, and borrowers must obtain hazard insurance, and if applicable, flood insurance.

Home equity loans and lines of credit generally have greater risk than one- to four-family residential mortgage loans. In these cases, we face the risk that collateral for a defaulted loan may not provide an adequate source of repayment of the outstanding loan balance. In particular, because home equity loans are secured by second mortgages, decreases in

real estate values could adversely affect the value of the property serving as collateral for these loans. Thus, the recovery of such property could be insufficient to compensate us for the value of these loans.

Loans secured by second mortgages have greater risk than owner-occupied residential loans secured by first mortgages. When customers default on their loans we attempt to foreclose on the property. However, the value of the collateral may not be sufficient to compensate for the amount of the unpaid loan, and we may be unsuccessful in recovering the remaining balance from these customers. In addition, decreases in property values could adversely affect the value of properties used as collateral for the loans. These second lien loans represent a smaller portion of our portfolio.

Our home equity and home improvement loan portfolio gives us a diverse client base. Although most of these loans are in our primary market area, the diversity of the individual loans in the portfolio reduces our potential risk.

Consumer Lending

We offer various types of secured and unsecured consumer loans. Generally, our consumer loans are made for personal, family or household purposes as a convenience to our customer base. As a general guideline, a consumer's total debt service should not exceed 40% of their gross income. The underwriting standards for consumer loans include a determination of the applicant's payment history on other debts and an assessment of his or her ability to meet existing obligations and payments on the proposed loan.

Consumer loans may present greater credit risk than residential mortgage loans because many consumer loans are unsecured or are secured by rapidly depreciating assets. Repossessed collateral for a defaulted consumer loan may not provide an adequate source of repayment of the outstanding loan balance because of the greater likelihood of damage, loss or depreciation. Consumer loan collections also depend on the borrower's continuing financial stability. If a borrower suffers personal financial difficulties, the loan may not be repaid. Also, various federal and state laws, including bankruptcy and insolvency laws, may limit the amount we can recover on such loans.

Loan Originations, Purchases, Sales, Participations and Servicing

All loans that we originate are underwritten pursuant to our policies and procedures, which incorporate standard underwriting guidelines. We originate both fixed and variable rate loans. Our loan origination activity may be adversely affected by a rising interest rate environment that typically results in decreased loan demand. We generally retain in our portfolio the majority of loans that we originate, except for first lien residential mortgage loans where we sell the majority of the loans into the secondary market. Residential loans originated for sale include loans originated on a national platform, underwritten to standards at least as conservative as those applied to in state loans, which constitute the majority of our residential loans originated for sale and over 90% of the residential loans that we add to our portfolio. We do not retain the servicing rights on sold loans.

We occasionally sell participations in commercial loans to correspondent banks if the amount of the loan exceeds our internal limits. More rarely, we purchase loan participations from correspondent banks in the local market as well. Those loans are underwritten in- house with the same care of loans directly originated.

Loan Approval Procedures and Authority

Our lending activities follow written, non-discriminatory underwriting standards and loan origination procedures established by our board of directors. The loan approval process is intended to assess the borrower's ability to repay the loan, the viability of the loan, and the adequacy of the value of the collateral that will secure the loan, if applicable. To assess a business borrower's ability to repay, we review and analyze, among other factors: current income, credit history including the Bank's prior experience with the borrower, cash flow, any secondary sources of repayment, other debt obligations in regards to the equity/net worth of the borrower and collateral available to the Bank to secure the loan.

We require appraisals of all real property securing one- to four-family residential and commercial real estate loans and home equity loans and lines of credit. All appraisers are state-licensed or state-certified appraisers, and our practice is to have local appraisers approved by the board of directors annually.

All residential mortgage loans are originated by Howard Bank. Our residential mortgage loans consist of residential first and second mortgage loans, residential construction loans and home equity lines of credit and term loans secured by the residences of borrowers. Second mortgage and home equity lines of credit are used for home improvements, education and other personal expenditures. We make mortgage loans with a variety of terms, including fixed, floating and variable interest rates, with maturities ranging from three months to thirty years.

Residential mortgage loans generally are made on the basis of the borrower's ability to repay the loan from his or her salary and other income and are secured by residential real estate, the value of which is generally readily ascertainable. These loans are made consistent with our appraisal and real estate lending policies, which detail maximum loan-to-value ratios and maturities. Residential mortgage loans and home equity lines of credit secured by owner-occupied property generally are made within the guidelines of our investors.

Howard Bank generates revenue by providing an extensive line of consumer real estate products and services to customers nationwide. Howard Bank offers products available to customers through a retail network of mortgage loan officers and bankers as well as a sales force offering our customers direct telephone access to our products.

The Bank originates residential mortgage loans primarily as a correspondent lender. Activity in the residential mortgage loan market is highly sensitive to changes in interest rates and product availability. While the Bank does have delegated underwriting authority from most of its investors, at times it also employs the services of the investor to underwrite the loans. Because the loans are originated within investor guidelines and designated automated underwriting and product specific requirements as part of the loan application, the loans sold have a limited recourse provision. Most contracts with investors contain recourse periods. In general, the Bank may be required to repurchase a previously sold mortgage loan or indemnify the investor if there is non-compliance with defined loan origination or documentation standards, including fraud, negligence or material misstatement in the loan documents. In addition, the Bank may have an obligation to repurchase a loan if the mortgagor has defaulted early in the loan term. The potential default repurchase period varies by investor but can be up to approximately twelve months after sale of the loan to the investor. Mortgages subject to recourse are collateralized by single-family residential properties, follow investor guidelines, and will carry private mortgage insurance, where applicable.

The Bank enters into commitments to originate residential mortgage loans whereby the interest rate on the loan is determined prior to funding (i.e. rate lock commitments). Such rate lock commitments on mortgage loans to be sold in the secondary market are considered to be derivatives. To protect against the price risk inherent in residential mortgage loan commitments, the Bank utilizes "best efforts" in delivering to investors. Under a "best efforts" contract, the Bank commits to deliver an individual mortgage loan of a specified principal amount and quality to an investor and the investor commits to a price that it will purchase the loan from the Bank if the loan to the underlying borrower closes. The Bank protects itself from changes in interest rates through the use of best efforts forward delivery commitments, whereby the investor commits to purchase a loan at a price representing a premium on the day the borrower commits to an interest rate with the intent that the buyer/investor has assumed the interest rate risk on the loan. As a result, the Bank is not generally exposed to losses on loans sold utilizing best efforts. Nor will it realize gains, related to rate lock commitments due to changes in interest rates. The market values of rate lock commitments and best efforts contracts are not readily ascertainable with precision because rate lock commitments and best efforts.

contracts are not actively traded. Because of the high correlation between rate lock commitments and best efforts contracts, no gain or loss should occur on the rate lock commitments.

Investments and Funding

We balance our liquidity needs based on loan and deposit growth via the investment portfolio and short term borrowings. It is our goal to provide adequate liquidity to support our loan growth. We use the generally short term investments that represent our liquidity to generate additional positive earnings. Howard Bank's primary source of funds is, and will continue to be, core deposits generated from the local marketplace. Additional funding is provided by customer repurchase agreements, Federal Home Loan Bank of Atlanta ("FHLB") advances, the Board of Governors of the Federal Reserve (the "FRB") Discount Window, and other purchased funds. Other purchased funds may include certificates of deposit over \$100,000, federal funds purchased, and institutional or brokered deposits. Lines of credit are maintained to protect liquidity levels resulting from unexpected deposit withdrawals and natural-market credit demand.

Our investment policy is reviewed annually by our board of directors. The board of directors has appointed its Executive Committee to serve as the Investment Committee, and the Executive Committee therefore meets at regular intervals (not less than quarterly) and provides a report on the investment portfolio performance to the full board of directors. The investment officer is designated by the President and is responsible for managing the day-to-day activities of the liquidity and investments in accordance with the policies approved by the board of directors. The investment officer is presently our Chief Financial Officer. We actively monitor our investment portfolio and we classify the majority of the portfolio as "available for sale." In general, under such a classification, we may sell investment instruments as management deems appropriate.

Other Banking Products

We offer our customers wire transfer services, courier service for non-negotiable deposits, ATM and check cards, automated teller machines at all of our full-service branch locations, safe deposit boxes at all full service locations and credit cards through a third party processor. Additionally, we provide Internet banking capabilities to our customers and merchant card services for our business customers. With our Internet banking service, our customers may view their accounts on line and electronically remit bill payments. Our commercial account services include an overnight sweep service and remote deposit capture service.

We complement our existing Internet and eBanking services with Mobiliti Mobile Banking, PopMoney and eStatement products. These state of the art products provide the Bank's consumer customers the ability to view account information and pay bills from their mobile device, easily make payments directly to individuals and, with eStatements, to replace their paper monthly statement with an electronically delivered statement.

Deposit Activities

Deposits are the major source of our funding. We offer a broad array of consumer and business deposit products that include demand, money market, savings and individual retirement accounts, as well as certificates of deposit. We offer through key technology partnerships a competitive array of commercial cash management products, which in combination with our in-house courier service and remote deposit/ check imaging service, allow us to attract demand deposits. We believe that we pay competitive rates on our interest bearing deposits. As a relationship-oriented organization, we generally seek to obtain deposit relationships with our loan clients.

We also use customer repurchase agreements, FHLB advances, the FRB Discount Window and other purchased funds as a funding mechanism. Other purchased funds may include certificates of deposits over \$100,000, federal funds purchased and institutional or brokered deposits.

Employees

Howard Bank has 214 full-time employees and four part-time employees as of December 31, 2014. None of our employees are represented by any collective bargaining unit, and we believe that relations with our employees are good. Howard Bancorp has no employees.

Lending Limit

The Bank's legal lending limit for loans to one borrower was approximately \$9.2 million as of December 31, 2014. We further monitor our exposure to one borrower through a policy to limit our "in-house" lending limit to \$7.1 million, which in-house limit can be waived by our board loan committee. As part of our risk management strategy, we may attempt to participate a portion of larger loans to other financial institutions. This strategy allows us to maintain customer relationships yet observe the legal lending limit and manage credit exposure. However, this strategy may not always be available.

Competition

Our primary market area is highly competitive and heavily branched by other financial institutions of all sizes. Competition for loans to small and medium sized businesses and their owners, professionals and executives, and high-net-worth individuals is intense, and pricing is important. We believe that acquisitions of several local competitors by larger institutions headquartered outside of the State of Maryland during the last several years have enhanced the Bank's positioning as a locally headquartered and managed community bank, but many of these competitors now have substantially greater resources and lending limits than we do and offer services, such as extensive and established branch networks and trust services, that we do not expect to provide in the near future or ever. Moreover, larger institutions operating in our primary market area may have access to borrowed funds at a lower rate than is available to us. Deposit competition is also strong among institutions in our primary market area.

However, recent mergers of other area banks into large regional and national financial institutions have created opportunities for community-focused and prudently managed community banks. While our board of directors is aware of the competition that these larger institutions offer, we believe that local independent banks play and will continue to play a significant role in our primary market area. Our board of directors believes it is a significant and distinct advantage to be a community owned and operated state bank interested in serving the needs of small and medium sized businesses and their owners, professionals and executives, and high-net-worth individuals.

Participation in Small Business Lending Fund

On September 22, 2011, we entered into a securities purchase agreement with the Secretary of the Treasury pursuant to which we sold to the Secretary of the Treasury 12,562 shares of our Series AA Preferred Stock, having a liquidation amount per share equal to \$1,000, for an aggregate purchase price of \$12,562,000. We issued the Series AA Preferred Stock pursuant to Treasury's Small Business Lending Fund ("SBLF"). Enacted into law as part of the Small Business Jobs Act of 2010, the SBLF was a \$30 billion fund designed to encourage lending to small businesses by providing Tier 1 capital to qualified community banks with assets of less than \$10 billion at favorable rates. We are pleased to be one of only four banks in the State of Maryland that was approved to participate in this program. The Series AA Preferred Stock qualifies as Tier 1 capital and is generally non-voting. In accordance with the terms of the SBLF program, the Series AA Preferred Stock has an initial annual dividend rate of 5%. The dividend rate will be reduced if our small business lending increases by at least 2.5%; this reduced rate may be as low as 1% if such lending increases by 10% or more. If we increase small business lending by at least 2.5% but by less than 10%, the rate on the Series AA Preferred Stock may fall to between 2% and 4%, but if lending does not increase in the first two and one-half years the annual dividend rate will increase to 7%. After four and one-half years, the dividend rate will increase to 9% if we have not repaid the SBLF funding at such time.

SUPERVISION AND REGULATION

Howard Bancorp, Inc.

We are a bank holding company under the Bank Holding Company Act of 1956, as amended (the "BHC Act"). We are subject to regulation and examination by the FRB and the Maryland Office of the Commissioner of Financial Regulation, and are required to file periodic reports and any additional information that the FRB and the Maryland Office of the Commissioner of Financial Regulation may require. In addition, the FRB and the Maryland Office of the Commissioner of Financial Regulation have enforcement authority over Howard Bancorp, Inc., which includes the power to remove officers and directors and the authority to issue cease and desist orders to prevent Howard Bancorp from engaging in unsafe or unsound practices or violating laws or regulations governing its business. In general, these enforcement actions may be initiated for violations of laws and regulations and unsafe or unsound practices. Other actions or inactions may provide the basis for enforcement action, including misleading or untimely reports filed with regulatory authorities.

Under the BHC Act, a bank holding company is required to serve as a source of financial and managerial strength to its subsidiary banks and may not conduct its operations in an unsafe or unsound manner. In addition, in serving as a source of strength to its subsidiary banks, a bank holding company should stand ready to use available resources to provide adequate capital funds to its subsidiary banks during periods of financial stress or adversity and should maintain the financial flexibility and capital raising capacity to obtain additional resources for assisting its subsidiary banks. A bank holding company's failure to meet its obligations to serve as a source of strength to its subsidiary banks

will generally be considered by the FRB to be an unsafe and unsound banking practice, a violation of FRB regulations or both. The FRB may require a bank holding company to terminate any activity or relinquish control of a nonbank subsidiary (other than a nonbank subsidiary of a bank) upon the FRB's determination that such activity or control constitutes a serious risk to the financial soundness or stability of any subsidiary depository institution of the bank holding company. Further, federal bank regulatory authorities have additional discretion to require a bank holding company to divest itself of any bank or nonbank subsidiary if the agency determines that divestiture may aid the depository institution's financial condition.

The BHC Act requires regulatory filings by a stockholder or other party that seeks to acquire direct or indirect "control" of an FDIC-insured depository institution. The determination whether an investor "controls" a depository institution is based on all of the facts and circumstances surrounding the investment. As a general matter, a party is deemed to control a depository institution or other company if the party owns or controls 25% or more of any class of voting stock. Subject to rebuttal, a party may be presumed to control a depository institution or other company if the investor owns or controls 10% or more of any class of voting stock. Ownership by affiliated parties, or parties acting in concert, is typically aggregated for these purposes. If a party's ownership of Howard Bancorp were to exceed certain thresholds, the investor could be deemed to "control" Howard Bancorp for regulatory purposes. This could subject the investor to regulatory filings or other regulatory consequences.

Pursuant to provisions of the BHC Act and regulations promulgated by the FRB thereunder, Howard Bancorp, Inc. may only engage in or own companies that engage in activities deemed by the FRB to be so closely related to the business of banking or managing or controlling banks as to be a proper incident thereto, and the holding company must obtain permission from the FRB prior to engaging in most new business activities. In addition, bank holding companies like Howard Bancorp must be well capitalized and well managed in order to engage in the expanded financial activities permissible only for a financial holding company.

The FRB has adopted guidelines regarding the capital adequacy of bank holding companies, which require bank holding companies to maintain specified minimum ratios of capital to total assets and capital to risk weighted assets. See "—Capital Requirements." The FRB has issued a policy statement regarding the payment of dividends by bank holding companies. In general, the FRB's policies provide that dividends should be paid only out of current earnings and only if the prospective rate of earnings retention by the bank holding company appears consistent with the organization's capital needs, asset quality, and overall financial condition. Under the prompt corrective action rules, the ability of a bank holding company to pay dividends may be restricted if a subsidiary bank becomes undercapitalized. These regulatory policies could affect the ability of Howard Bancorp, Inc. to pay dividends or otherwise engage in capital distributions.

The status of Howard Bancorp, Inc. as a registered bank holding company under the BHC Act and a Maryland-chartered bank holding company does not exempt it from certain federal and state laws and regulations applicable to corporations generally, including, without limitation, certain provisions of the federal securities laws.

Howard Bank

Howard Bank is a Maryland chartered trust company (with all powers of a commercial bank), and its deposit accounts are insured by the Deposit Insurance Fund ("DIF") of the FDIC up to the maximum legal limits. It is subject to regulation, supervision and regular examination by the Maryland Commissioner of Financial Regulation and the FDIC. The regulations of these various agencies govern most aspects of Howard Bank's business, including required reserves against deposits, loans, investments, mergers and acquisitions, borrowing, dividends and location and number of branch offices. The laws and regulations governing Howard Bank generally have been promulgated to protect depositors and the DIF, and not for the purpose of protecting stockholders.

Set forth below is a brief description of the material regulatory requirements that are or will be applicable to Howard Bank and Howard Bancorp, Inc. The description below is limited to the material aspects of the statutes and regulations addressed, and is not intended to be a complete description of such statutes and regulations and their effects on Howard Bank and Howard Bancorp, Inc.

Financial Institutions Article of the Maryland Annotated Code

The Financial Institutions Article of the Maryland Annotated Code (the "Banking Code") contains detailed provisions governing the organization, operations, corporate powers, commercial and investment authority, branching rights and responsibilities of directors, officers and employees of Maryland banking institutions. The Banking Code delegates extensive rulemaking power and administrative discretion to the Maryland Office of the Commissioner of Financial Regulation in its supervision and regulation of state-chartered banking institutions. The Maryland Office of the Commissioner of Financial Regulation may order any banking institution to discontinue any violation of law or unsafe or unsound business practice.

Capital Requirements

The federal bank regulatory agencies have established capital adequacy guidelines for banks and bank holding companies by which they assess the adequacy of capital in examining and supervising banks and bank holding companies and in analyzing bank regulatory applications. There are two main categories of capital under the capital

adequacy guidelines. Tier 1 capital generally consists of the sum of common stockholders' equity and perpetual preferred stock (subject in the case of the latter to limitations on the kind and amount of such stock) and, in certain circumstances and subject to certain limitations, minority investments in certain subsidiaries, less goodwill and other non-qualifying intangible assets, and certain other deductions. Tier 2 capital consists of perpetual preferred stock that is not otherwise eligible to be included as Tier 1 capital, hybrid capital instruments, term subordinated debt and intermediate term preferred stock and, subject to limitations, general allowances for credit losses. Tier 2 capital is limited to the amount of Tier 1 capital. Under rules that became effective January 1, 2015, accumulated other comprehensive income (positive or negative) must be reflected in regulatory capital; however, Howard Bank may make a one-time, permanent election to continue to exclude accumulated other comprehensive income from regulatory capital. If Howard Bank does not make this election, unrealized gains and losses, net of taxes, on certain financial instruments, including available-for-sale-securities, will be included in the calculation of Howard Bank's regulatory capital. The permanent opt-out election must be made by Howard Bank on its Call Report for the first reporting period after January 1, 2015 and Howard Bancorp, Inc. must make the same election as Howard Bank. Howard Bank intends to make this election.

The capital adequacy guidelines include a minimum leverage capital requirement for banks and bank holding companies. If the applicable federal bank regulatory agency determines that a bank or bank holding company is not anticipating or experiencing significant growth and has well-diversified risk, including no undue interest rate risk exposure, excellent asset quality, high liquidity, good earnings and in general is considered a strong banking organization, rated composite 1 under the Uniform Financial Institutions Rating System (the CAMEL rating system) established by the Federal Financial Institutions Examination Council, the minimum capital leverage requirement is a ratio of Tier 1 capital to total assets of 3.0%. For all other institutions, the minimum leverage capital ratio is not less than 4.0%. In addition to the minimum leverage capital requirements, banks and bank holding companies must maintain certain ratios of capital to regulatory risk-weighted assets, or "risk-based capital ratios." Risk-based capital rules in effect through December 31, 2014, banks and bank holding companies were required to maintain a minimum required Tier 1 risk-based capital ratio of 4% and a minimum required total risk-based capital ratio of 8%. Total capital consists of Tier 1 capital plus Tier 2 capital, less certain required deductions.

New Capital Rules

In July 2013, the federal bank regulatory agencies issued a final rule implementing the capital standards of the Basel Committee on Banking Supervision and the minimum capital requirements and certain other provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). The final rule, which became effective on January 1, 2015, applies to all depository institutions, top-tier bank holding companies with total consolidated assets of \$500 million or more and top-tier savings and loan holding companies. Among other things, the rule establishes a new minimum common equity Tier 1 risk-based capital ratio requirement of 4.5%, a minimum Tier 1 risk-based capital ratio requirement of 6%, a minimum total risk-based capital ratio requirement of 8% and a minimum leverage ratio requirement of 4%. The new capital requirements also include changes in the risk-weights of certain assets to better reflect credit risk and other risk exposures. Additionally, subject to a transition schedule, the rule limits a banking organization's ability to make capital distributions, engage in share repurchases and pay certain discretionary bonus payments if the banking organization does not hold a "capital conservation buffer" consisting of 2.5% of common equity Tier 1 capital to risk-weighted assets in addition to the amount necessary to meet its minimum risk-based capital requirements.

The ultimate impact of the new capital and liquidity standards will depend on a number of factors. Because the new rules are phased in over time, we cannot determine the ultimate effect that the new requirements will have upon our earnings or financial position, although the requirements to maintain higher levels of capital or to maintain higher levels of liquid assets could adversely impact our financial results.

Prompt Corrective Action

Under federal prompt corrective action regulations, the bank regulatory agencies are authorized and, under certain circumstances, required to take various "prompt corrective actions" to resolve the problems of any bank subject to their jurisdiction that is not adequately capitalized. Under these regulations, as in effect through December 31, 2014, a bank was considered to be: (i) "well capitalized" if it had total risk-based capital of 10% or more, Tier 1 risk-based capital of 6.0% or more, Tier I leverage capital of 5% or more, and was not subject to any written capital order or directive; (ii) "adequately capitalized" if it had total risk-based capital of 8% or more, Tier I risk-based capital of 4.0% or more and Tier I leverage capital of 4% or more (3% under certain circumstances), and does not meet the definition of "well capitalized"; (iii) "undercapitalized" if it had total risk-based capital of less than 8%, Tier I risk-based capital of less than 4% or Tier I leverage capital of less than 4% (3% under certain circumstances); (iv) "significantly undercapitalized" if it had total risk-based capital of less than 6%, Tier I risk-based capital less than 3%, or Tier I leverage capital of less than 3%; and (v) "critically undercapitalized" if its ratio of tangible equity to total assets was equal to or less than 2%. Under certain circumstances, the bank regulatory agency may reclassify a well capitalized institution as adequately capitalized, and may require an adequately capitalized institution or an undercapitalized institution to comply with supervisory actions as if it were in the next lower category (except that the bank regulatory agency may not reclassify a significantly undercapitalized institution as critically undercapitalized). As of December 31, 2014, Howard Bank was "well capitalized" for this purpose and its capital exceeded all applicable requirements.

Under the amended prompt corrective action regulations, effective January 1, 2015, a bank is considered "well capitalized" if it: (i) has a total risk-based capital ratio of 10.0% or greater; (ii) a Tier 1 risk-based capital ratio of 8.0%

or greater; (iii) a common Tier 1 equity ratio of at least 6.5% or greater; (iv) a leverage capital ratio of 5.0% or greater; and (iv) is not subject to any written agreement, order, capital directive, or prompt corrective action directive to meet and maintain a specific capital level for any capital measure. As of December 31, 2014, Howard Bank remained "well capitalized" for this purpose and its capital exceeded all applicable requirements.

Howard Bank has been "well capitalized" since it commenced its business operations.

At this time the bank regulatory agencies are more inclined to impose higher capital requirements in order to meet well capitalized standards, and future regulatory change could impose higher capital standards as a routine matter. The regulators may also set higher capital requirements for holding companies whose circumstances warrant it. For example, holding companies experiencing internal growth or making acquisitions are expected to maintain strong capital positions substantially above the minimum supervisory levels, without significant reliance on intangible assets.

As an additional means to identify problems in the financial management of depository institutions, the Federal Deposit Insurance Act requires federal bank regulatory agencies to establish certain non-capital safety and soundness standards for institutions for which they are the primary federal regulator. The standards relate generally to operations and management, asset quality, interest rate exposure and executive compensation. The agencies are authorized to take action against institutions that fail to meet such standards.

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Dividends

Howard Bancorp, Inc. is a legal entity separate and distinct from Howard Bank. Virtually all of Howard Bancorp's revenue available for the payment of dividends on its common stock results from dividends paid to Howard Bancorp by Howard Bank. Under Maryland law, Howard Bank may declare a cash dividend, after providing for due or accrued expenses, losses, interest and taxes, from its undivided profits or, with the prior approval of the Maryland Office of the Commissioner of Financial Regulation, from its surplus in excess of 100% of its required capital stock. Also, if Howard Bank's surplus is less than 100% of its required capital stock, cash dividends may not be paid in excess of 90% of net earnings. In addition to these specific restrictions, the bank regulatory agencies have the ability to prohibit or limit proposed dividends if such regulatory agencies determine the payment of such dividends would result in Howard Bank being in an unsafe and unsound condition.

Deposit Insurance Assessments

Howard Bank's deposit accounts are insured by the FDIC generally up to a maximum of \$250,000 per separately insured depositor. FDIC-insured depository institutions are required to pay deposit insurance assessments to the FDIC. The amount of a particular institution's deposit insurance assessment is based on that institution's risk classification under an FDIC risk-based assessment system. An institution's risk classification is assigned based on its capital levels and the level of supervisory concern the institution poses to the regulators. Assessment rates (inclusive of possible adjustments) currently range from 2.5 to 45 basis points of each institution's total assets less tangible capital. The FDIC may increase or decrease the range of assessments uniformly, except that no adjustment can deviate more than two basis points from the base assessment rate without notice and comment rulemaking. The FDIC's current system represents a change, required by the Dodd-Frank Act, from its prior practice of basing the assessment on an institution's aggregate deposits. The FDIC may terminate insurance of deposits upon a finding that the institution has engaged in unsafe or unsound practices, is in an unsafe or unsound condition to continue operations or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC.

Maryland Regulatory Assessment

The Maryland Office of the Commissioner of Financial Regulation annually assesses state banking institutions to cover the expense of regulating banking institutions. The Bank's asset size determines the amount of the assessment.

Liquidity

Howard Bank is subject to the reserve requirements imposed by the State of Maryland. A Maryland banking institution is required to have at all times a reserve equal to at least 15% of its demand deposits. Howard Bank is also subject to the uniform reserve requirements of the FRB's Regulation D, which applies to all depository institutions with transaction accounts or non-personal time deposits. For 2014, amounts in transaction accounts above \$13.3 million and up to \$89.0 million must have had reserves held against them in the ratio of three percent of the amount. Amounts above \$89.0 million required reserves of \$2,271,000 plus 10 percent of the amount in excess of \$89.0 million. Beginning in January 2015, amounts in transaction accounts above \$14.5 million and up to \$103.6 million must have reserves held against them in the ratio of 3% of the amount. Amounts above \$103.6 million require reserves of \$2,673,000 plus 10 percent of the amount in excess of \$103.6 million. The Maryland reserve requirements may be used to satisfy the requirements of Regulation D. Howard Bank is in compliance with its reserve requirements.

Loans-to-One-Borrower Limitation

With certain limited exceptions, a Maryland banking institution may lend to a single or related group of borrowers an amount equal to 15% of its unimpaired capital and surplus. An additional amount may be lent, equal to 10% of unimpaired capital and surplus, if such loan is secured by readily marketable collateral, which is defined to include certain securities and bullion, but generally does not include real estate. Howard Bank is in compliance with the loans-to-one borrower limitations.

Community Reinvestment Act and Fair Lending Laws

Under the Community Reinvestment Act of 1977 ("CRA"), the FDIC is required to assess the record of all financial institutions regulated by it to determine if such institutions are meeting the credit needs of the community (including low and moderate income neighborhoods) which they serve. CRA performance evaluations are based on a four-tiered rating system: Outstanding, Satisfactory, Needs to Improve and Substantial Noncompliance. CRA performance evaluations are considered in evaluating applications for such things as mergers, acquisitions and applications to open branches. Howard Bank has a CRA rating of "Outstanding." In addition, the Equal Credit Opportunity Act and the Fair Housing Act prohibit lenders from discriminating in their lending practices on the basis of characteristics specified in those statutes. The failure to comply with the Equal Credit Opportunity Act and the Fair Housing Act could result in enforcement actions by the FDIC, the Department of Housing and Urban Development, and the Department of Justice, and in private civil actions by borrowers.

Transactions with Related Parties

Transactions between banks and their related parties or affiliates are limited by Sections 23A and 23B of the Federal Reserve Act. An affiliate of a bank is any company or entity that controls, is controlled by or is under common control with the bank. In a holding company context, the parent bank holding company and any companies which are controlled by such parent holding company are affiliates of the bank.

Generally, Section 23A of the Federal Reserve Act and the FRB's Regulation W limit the extent to which a bank or its subsidiaries may engage in "covered transactions" with any one affiliate to an amount equal to 10.0% of such bank's capital stock and surplus, and contain an aggregate limit on all such transactions with all affiliates to an amount equal to 20.0% of such bank's capital stock and surplus. The term "covered transaction" includes the making of loans, purchase of assets, issuance of guarantees and other similar transactions. In addition, loans or other extensions of credit by the bank to an affiliate are required to be collateralized in accordance with regulatory requirements and the bank's transactions with affiliates must be consistent with safe and sound banking practices and may not involve the purchase by the bank of any low-quality asset. Section 23B applies to covered transactions as well as certain other transactions and requires that all such transactions be on terms substantially the same, or at least as favorable, to the institution or subsidiary as those provided to non-affiliates.

Section 22(h) of the Federal Reserve Act and the FRB's Regulation O govern extensions of credit made by a bank to its directors, executive officers, and principal stockholders ("insiders"). Among other things, these provisions require that extensions of credit to insiders be made on terms that are substantially the same as, and follow credit underwriting procedures that are not less stringent than, those prevailing for comparable transactions with unaffiliated persons and that do not involve more than the normal risk of repayment or present other unfavorable features. Further, such extensions may not exceed certain limitations on the amount of credit extended to such persons, individually and in the aggregate, which limits are based, in part, on the amount of Howard Bank's capital. Extensions of credit in excess of certain limits must also be approved by the board of directors.

Standards for Safety and Soundness

Federal law requires each federal banking agency to prescribe certain standards for all insured depository institutions. These standards relate to, among other things, internal controls, information systems and audit systems, loan documentation, credit underwriting, interest rate risk exposure, asset growth, compensation, and other operational and managerial standards as the agency deems appropriate. Interagency guidelines set forth the safety and soundness standards that the federal banking agencies use to identify and address problems at insured depository institutions before capital becomes impaired. If the appropriate federal banking agency determines that an institution fails to meet any standard prescribed by the guidelines, the agency may require the institution to submit to the agency an acceptable plan to achieve compliance with the standard. If an institution fails to meet these standards, the appropriate federal banking agency may require the institution to implement an acceptable compliance plan. Failure to implement such a

plan can result in further enforcement action, including the issuance of a "cease and desist" order or the imposition of civil money penalties.

Anti-Money Laundering and OFAC

Under federal law, financial institutions must maintain anti-money laundering programs that include established internal policies, procedures and controls; a designated compliance officer; an ongoing employee training program; and testing of the program by an independent audit function. Financial institutions are also prohibited from entering into specified financial transactions and account relationships and must meet enhanced standards for due diligence and customer identification in their dealings with foreign financial institutions and foreign customers. Financial institutions must take reasonable steps to conduct enhanced scrutiny of account relationships to guard against money laundering and to report any suspicious transactions, and law enforcement authorities have been granted increased access to financial information maintained by financial institutions. Bank regulators routinely examine institutions for compliance with these obligations, and they must consider an institution's compliance in connection with the regulatory review of applications, including applications for banking mergers and acquisitions. The regulatory authorities have imposed "cease and desist" orders and civil money penalty sanctions against institutions found to be violating these obligations.

The Office of Foreign Assets Control, ("OFAC") is responsible for helping to insure that U.S. entities do not engage in transactions with certain prohibited parties, as defined by various Executive Orders and Acts of Congress. OFAC sends bank regulatory agencies lists of persons and organizations suspected of aiding, harboring or engaging in terrorist acts, known as Specially Designated Nationals and Blocked Persons. If Howard Bancorp or Howard Bank finds a name on any transaction, account or wire transfer that is on an OFAC list, Howard Bancorp or Howard Bank must freeze such account, file a suspicious activity report and notify the appropriate authorities.

Consumer Protection Laws

Howard Bank is subject to a number of federal and state laws designed to protect borrowers and promote lending to various sectors of the economy. These laws include the Equal Credit Opportunity Act, the Fair Housing Act, the Fair Credit Reporting Act, the Fair and Accurate Credit Transactions Act, the Truth in Lending Act, the Home Mortgage Disclosure Act, and the Real Estate Settlement Procedures Act, and various state law counterparts. Further, the Dodd-Frank Act established the Consumer Financial Protection Bureau ("CFPB"), which has the responsibility for making rules and regulations under the federal consumer protection laws relating to financial products and services. The CFPB also has a broad mandate to prohibit unfair or deceptive acts and practices and is specifically empowered to require certain disclosures to consumers and draft model disclosure forms. Failure to comply with consumer protection laws and regulations can subject financial institutions to enforcement actions, fines and other penalties. The FDIC will examine Howard Bank for compliance with CFPB rules and will enforce CFPB rules with respect to Howard Bank.

In addition, federal law currently contains extensive customer privacy protection provisions. Under these provisions, a financial institution must provide to its customers, at the inception of the customer relationship and annually thereafter, the institution's policies and procedures regarding the handling of customers' nonpublic personal financial information. These provisions also provide that, except for certain limited exceptions, a financial institution may not provide such personal information to unaffiliated third parties unless the institution discloses to the customer that such information may be so provided and the customer is given the opportunity to opt out of such disclosure. Further, under the "Interagency Guidelines Establishing Information Security Standards," banks must implement a comprehensive information security program that includes administrative, technical, and physical safeguards to ensure the security and confidentiality of customer information. Federal law makes it a criminal offense, except in limited circumstances, to obtain or attempt to obtain customer information of a financial nature by fraudulent or deceptive means.

The Dodd-Frank Act

The Dodd-Frank Act, enacted in July 2010, will have a broad impact on the financial services industry, imposing significant regulatory and compliance changes, including the designation of certain financial companies as systemically significant, the imposition of increased capital, leverage, and liquidity requirements, and numerous other provisions designed to improve supervision and oversight of, and strengthen safety and soundness within, the financial services sector.

The following items provide a brief description of certain provisions of the Dodd-Frank Act.

Source of strength. The Dodd-Frank Act requires all companies, including bank holding companies, that directly or indirectly control an insured depository institution to serve as a source of strength for the institution. Under this requirement, Howard Bancorp in the future could be required to provide financial assistance to Howard Bank should Howard Bank experience financial distress.

Mortgage loan origination and risk retention. The Dodd-Frank Act contains additional regulatory requirements that may affect our operations and result in increased compliance costs. For example, the Dodd-Frank Act imposes new standards for mortgage loan originations on all lenders, including banks, in an effort to require steps to verify a borrower's ability to repay. In addition, the Dodd-Frank Act generally requires lenders or securitizers to retain an economic interest in the credit risk relating to loans the lender sells or mortgage and other asset-backed securities that the securitizer issues. The risk retention requirement generally will be 5%, but could be increased or decreased by regulation.

CFPB. The Dodd-Frank Act created a new independent CFPB within the FRB. The CFPB is tasked with establishing and implementing rules and regulations under certain federal consumer protection laws with respect to the conduct of providers of certain consumer financial products and services. The CFPB has rulemaking authority over many of the statutes governing products and services offered to bank consumers. For banking organizations with assets under \$10 billion, like Howard Bank, the CFPB has exclusive rule making authority, but the FDIC, as Howard Bank's primary federal regulator, would continue to have enforcement authority under federal consumer financial law. In addition, the Dodd-Frank Act permits states to adopt consumer protection laws and regulations that are stricter than those regulations promulgated by the CFPB. Compliance with any such new regulations would increase our cost of operations.

Deposit insurance. The Dodd-Frank Act permanently increased the deposit insurance limit to \$250,000 for insured deposits. Amendments to the Federal Deposit Insurance Act also revise the assessment base against which an insured depository institution's deposit insurance premiums paid to DIF will be calculated. Several of these provisions could increase the FDIC deposit insurance premiums paid by Howard Bank.

Enhanced lending limits. The Dodd-Frank Act strengthened the limits on a depository institution's credit exposure to one borrower. Federal banking law limits a depository institution's ability to extend credit to one person (or group of related persons) in an amount exceeding certain thresholds. The Dodd-Frank Act expanded the scope of these restrictions to include credit exposure arising from derivative transactions, repurchase agreements, and securities lending and borrowing transactions.

Corporate governance. The Dodd-Frank Act addressed many investor protection, corporate governance and executive compensation matters that will affect most U.S. publicly traded companies, including Howard Bancorp. The Dodd-Frank Act provides the SEC with authority to adopt proxy access rules that would allow stockholders of publicly traded companies to nominate candidates for election as a director and have those nominees included in a company's proxy materials and direct the SEC and national securities exchanges to adopt rules that; (1) provide stockholders of U.S. publicly traded companies an advisory vote on executive compensation; (2) will enhance independence requirements for compensation committee members; and (3) will require companies listed on national securities exchanges to adopt incentive-based compensation clawback policies for executive officers.

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Some of the requirements of the Dodd-Frank Act have been implemented, while others will be implemented over time and most will be subject to regulations implemented over the course of several years. Given the uncertainty associated with the manner in which the provisions of the Dodd-Frank Act will be implemented by the various regulatory agencies and through regulations, the full extent of the impact such requirements will have on our operations is unclear. The changes resulting from the Dodd-Frank Act may impact the profitability of our business activities, require changes to certain of our business practices, impose upon us more stringent capital, liquidity and leverage requirements or otherwise adversely affect our business. These changes may also require us to invest significant management attention and resources to evaluate and make any changes necessary to comply with new statutory and regulatory requirements. Failure to comply with the new requirements may negatively impact our results of operations and financial condition. While we cannot predict what effect any presently contemplated or future changes in the laws or regulations or their interpretations would have on us, these changes could be materially adverse to our investors.

Effect of Governmental Monetary Policies

Our earnings are affected by domestic economic conditions and the monetary and fiscal policies of the United States government and its agencies. The FRB's monetary policies have had, and are likely to continue to have, an important impact on the operating results of commercial banks through its power to implement national monetary policy in order, among other things, to curb inflation or combat a recession. The monetary policies of the FRB affect the levels of bank loans, investments and deposits through its control over the issuance of United States government securities, its regulation of the discount rate applicable to member banks and its influence over reserve requirements to which member banks are subject. We cannot predict the nature or impact of future changes in monetary and fiscal policies.

Federal and State Securities Laws

Our common stock is registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934 (the "Exchange Act"). As such, we are subject to the information, proxy solicitation, insider trading restrictions and other requirements of the Exchange Act.

Further, if we wish to sell common stock or other securities to raise capital in the future, we will be subject to the registration, anti-fraud, and other applicable provisions of state and federal securities laws. For example, we will have to register the sales of such securities under the Securities Act, the Maryland Securities Act, and the applicable securities laws of each state in which we offer or sell the securities, unless an applicable exemption from registration exists with respect to such sales. Such exemptions may, among other things, limit the number and types of persons we could sell such securities to and the manner in which we could market the securities. We would also be subject to federal and state anti-fraud requirements with respect to any statements we make to potential purchasers in connection with the offer and sale of such securities.

Sarbanes-Oxley Act of 2002

The Sarbanes-Oxley Act of 2002 addresses, among other issues, corporate governance, auditing and accounting, executive compensation, and enhanced and timely disclosure of corporate information. As directed by the Sarbanes-Oxley Act, our Chief Executive Officer and Chief Financial Officer are be required to certify that our quarterly and annual reports do not contain any untrue statement of a material fact. The rules adopted by the Securities and Exchange Commission under the Sarbanes-Oxley Act have several requirements, including having these officers certify that: they are responsible for establishing, maintaining and regularly evaluating the effectiveness of our internal control over financial reporting; they have made certain disclosures to our auditors and the Audit Committee of the board of directors about our internal control over financial reporting; and they have included information in our quarterly and annual reports about their evaluation and whether there have been changes in our internal control over financial reporting. We are subject to further reporting and audit requirements under the requirements of the Sarbanes-Oxley Act. We are also required to prepare policies, procedures and systems designed to ensure compliance with these regulations.

Item 1A. Risk Factors

You should consider carefully the following risks, along with the other information contained in and incorporated into this annual report. The risks and uncertainties described below are not the only ones that may affect us. Additional risks and uncertainties also may adversely affect our business and operations. If any of the following events actually occur, our business and financial results could be materially adversely affected.

Risk Factors Related to the Pending Merger with Patapsco Bancorp, Inc.

We may fail to realize all of the anticipated benefits of the merger.

The success of the pending merger with Patapsco Bancorp, as discussed above in "Item-1 Business," will depend, in part, on our ability to realize the anticipated benefits and cost savings from combining the businesses of Howard Bancorp and Patapsco Bancorp. To realize these anticipated benefits and cost savings, however, we must successfully combine the businesses of Howard Bancorp and Patapsco Bancorp. If we are unable to achieve these objectives, the anticipated benefits and cost savings of the merger may not be realized fully or at all or may take longer to realize than expected.

Howard Bancorp and Patapsco Bancorp have operated and, until the completion of the merger, will continue to operate, independently. It is possible that the integration process could result in the loss of key employees, the loss of key depositors or other bank customers, the disruption of each company's ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect Howard Bancorp's and Patapsco Bancorp's ability to maintain their relationships with their respective clients, customers, depositors and employees or to achieve the anticipated benefits of the merger. Integration efforts between the two companies may, to some extent, also divert management attention and resources. These integration matters could have an adverse effect on each of Howard Bancorp and Patapsco Bancorp during such transition period.

The market price of Howard Bancorp common stock after the merger may be affected by factors different from those affecting the shares of Howard Bancorp currently.

The businesses of Howard Bancorp and Patapsco Bancorp differ and, accordingly, the results of operations of the combined company and the market price of the combined company's shares of common stock may be affected by factors different from those currently affecting Howard Bancorp's independent results of operations and the market price of our common stock.

We may be unable to obtain satisfaction of all conditions to complete our merger with Patapsco Bancorp, including the approval of our stockholders, in the anticipated timeframe.

Completion of the merger is contingent upon customary closing conditions, including approval of the issuance of our common stock in the merger by our stockholders and approval of the merger agreement and the merger by Patapsco Bancorp's stockholders. If either our stockholders do not approve the issuance of the shares to be issued in the merger or the stockholders of Patapsco Bancorp do not approve the merger agreement and the merger at the requisite stockholders' meetings, we will not consummate the merger.

Completion of the merger is also conditioned upon customary closing conditions.

Although Howard Bancorp and Patapsco Bancorp have agreed in the merger agreement to use reasonable best efforts to consummate the merger, the other conditions to the merger may fail to be satisfied. In addition, satisfying the conditions to, and completion of, the merger may take longer and could cost more than we expect. Any delay in completing the merger may adversely affect the benefits that we expect to achieve from the merger and the integration of our business with Patapsco Bancorp's business.

If the merger is not completed, we will have incurred substantial expenses without realizing the expected benefits.

We have incurred substantial expenses in connection with the execution of the merger agreement. The completion of the merger depends on the satisfaction of specified conditions, including the requisite approval of the stockholders of Howard Bancorp and Patapsco Bancorp and the receipt of regulatory approvals. There is no guarantee that we will receive the required stockholder and regulatory approvals. If the merger is not completed, these expenses could have a material adverse impact on our financial condition because we will not realize the expected benefits.

Failure to complete the merger could negatively impact our stock price and our future business and financial results.

If we do not complete the merger, it may adversely affect our ongoing business and we will be subject to several risks, including the following:

We will be required to pay certain costs relating to the merger, whether or not the merger is completed, such as legal, accounting, financial advisor and printing fees.

Matters relating to the merger may require substantial commitments of time and resources by our management that they could otherwise have devoted to other opportunities that may be beneficial to us.

If we do not complete the merger we may experience negative reactions from the financial markets and from our customers and employees. We could also be subject to litigation related to any failure to complete the merger or to enforcement proceedings commenced against us to perform our obligations under the merger agreement.

If we do not complete the merger, we cannot assure our stockholders that the risks described above will not materialize and will not materially affect our business, financial results and stock price.

<u>Risk Factors Relating to Howard Bancorp' Business and Our Common Stock</u>

Because our loan portfolio consists largely of commercial business and commercial real estate loans, our portfolio carries a higher degree of risk than would a portfolio composed primarily of residential mortgage loans.

Our loan portfolio is made up largely of commercial business loans and commercial real estate loans, most of which is collateralized by real estate. These types of loans generally expose a lender to a higher degree of credit risk of non-payment and loss than do residential mortgage loans because of several factors, including dependence on the successful operation of a business or a project for repayment, the collateral securing these loans may not be sold as easily as residential real estate, and loan terms with a balloon payment rather than full amortization over the loan term. In addition, commercial real estate and commercial loans typically involve larger loan balances to single borrowers or groups of related borrowers compared to one- to four-family residential mortgage loans. Consequently, an adverse development with respect to a one- to four-family residential mortgage loan. Underwriting and portfolio management activities cannot completely eliminate all risks related to these loans. Any significant failure to pay on time by our customers or a significant default by our customers would materially and adversely affect us.

We make both secured and some unsecured commercial and industrial loans. Unsecured loans generally involve a higher degree of risk of loss than do secured loans because, without collateral, repayment is wholly dependent upon the success of the borrowers' businesses. Secured commercial and industrial loans are generally collateralized by accounts receivable, inventory, equipment or other assets owned by the borrower and include a personal guaranty of

the business owner. Compared to real estate, that type of collateral is more difficult to monitor, its value is harder to ascertain, it may depreciate more rapidly and it may not be as readily saleable if repossessed. Further, commercial and industrial loans generally will be serviced primarily from the operation of the business, which may not be successful, and commercial real estate loans generally will be serviced from income on the properties securing the loans.

While the declines in the value of our real estate collateral securing loans following the recession that began in 2007 have been reflected in existing reserves, the discounts and reserves we have taken against our loan portfolio based on our review of the recent recession's impact on real estate values in our market areas may be insufficient. Further deterioration in the real estate market or a prolonged economic recovery could adversely affect the value of the properties securing the loans or revenues from borrowers' businesses, thereby increasing the risk of non-performing loans and increased portfolio losses that could materially and adversely affect us.

In addition, our commercial borrowers have been impacted by the current economic slowdown as consumers and other businesses have pulled back on spending. Small businesses that make up the majority of our commercial borrowers generally do not have the cash reserves to help cushion them from an economic slowdown to the same extent that large borrowers do and thus may be more heavily impacted by an economic downturn. A continued sluggish economy or another economic slowdown may have a negative effect on the ability of our commercial borrowers to make timely repayments of their loans, which could have an adverse impact on our earnings.

Current market conditions include an over-supply of land, lots and finished homes in many markets, including those where we do business. Construction loans are subject to risks during the construction phase that are not present in standard residential real estate and commercial real estate loans. These risks include:

the viability of the contractor; the value of the project being subject to successful completion;

the contractor's ability to complete the project, to meet deadlines and time schedules and to stay within cost estimates; and

concentrations of such loans with a single contractor and its affiliates.

Real estate construction and land loans also present risks of default in the event of declines in property values or volatility in the real estate market during the construction phase. If we are forced to foreclose on a project prior to completion, we may not be able to recover the entire unpaid portion of the loan, may be required to fund additional amounts to complete a project and may have to hold the property for an indeterminate amount of time. If any of these risks were to occur, it could adversely affect our financial condition, results of operations and cash flows.

The federal banking agencies have issued guidance regarding high concentrations of commercial real estate loans within bank loan portfolios. The guidance requires financial institutions that exceed certain levels of commercial real estate lending compared with their total capital to maintain heightened risk management practices that address the following key elements: including board and management oversight and strategic planning, portfolio management, development of underwriting standards, risk assessment and monitoring through market analysis and stress testing, and maintenance of increased capital levels as needed to support the level of commercial real estate lending. If there is any deterioration in our commercial real estate or real estate construction and land portfolios or if our regulators conclude that we have not implemented appropriate risk management practices, it could adversely affect our business and result in a requirement of increased capital levels, and such capital may not be available at that time.

If our allowance for credit losses is not sufficient to cover actual loan losses, our earnings would decrease.

We maintain an allowance for credit losses that we believe is adequate for absorbing any potential losses in our loan portfolio. Management, through a periodic review and consideration of our loan portfolio, determines the amount of the allowance for credit losses. We cannot, however, predict with certainty the amount of probable losses in our portfolio or be sure that our allowance will be adequate in the future. If management's assumptions and judgments prove to be incorrect and the allowance for credit losses is inadequate to absorb future losses, our losses will increase and our earnings will suffer.

In particular, it is more difficult to estimate loan losses for those types of loans - commercial and commercial real estate - that constitute the majority of our portfolio as compared to, for example, residential mortgage loans. Also, because these types of loans tend to have large loan balances, a loss on a single loan could have a significant adverse effect on our operations.

In determining the amount of the allowance for credit losses, we review our loans and our loss and delinquency experience, and evaluate economic conditions. If our assumptions are incorrect, our allowance for credit losses may not be sufficient to cover future incurred losses in our loan portfolio, resulting in additions to the allowance and a corresponding decrease to earnings. Material additions to the allowance could materially decrease our net income. If delinquencies and defaults continue to increase, we may be required to further increase our provision for loan losses.

In addition, bank regulators periodically review our allowance for credit losses and may require an increase in the provision for loan losses or further loan charge-offs to the allowance for credit losses. Any increase in the allowance for credit losses or loan charge-offs might have a material adverse effect on our financial condition and results of operations.

Because our loan portfolio includes residential real estate loans, our earnings are sensitive to the credit risks associated with these types of loans.

We originate and retain in our portfolio residential mortgage loans and intend to increase our origination of these types of loans. While residential real estate loans are more diversified than loans to commercial borrowers, and our local real estate market and economy have performed better than many other markets, a downturn could cause higher unemployment, more delinquencies, and could adversely affect the value of properties securing loans in our portfolio. In addition, should values begin to decline again, the real estate market may take longer to recover or not recover to previous levels. These risks increase the probability of an adverse impact on our financial results as fewer borrowers would be eligible to borrow and property values could be below necessary levels required for adequate coverage on the requested loan.

Our Residential Lending department may not continue to provide us with significant noninterest income.

In 2014, the Bank originated \$346 million and sold \$305 million of loans to investors, as compared to \$31 million originated and \$28 million sold to investors in 2013. The residential mortgage business is highly competitive, and highly susceptible to changes in market interest rates, consumer confidence levels, employment statistics, the capacity and willingness of secondary market purchasers to acquire and hold or securitize loans, and other factors beyond our control. Additionally, in many respects, the mortgage origination business is relationship based, and dependent on the services of individual mortgage loan officers. The loss of services of one or more loan officers could have the effect of reducing the level of our mortgage production, or the rate of growth of production. As a result of these factors we cannot be certain that we will not be able to continue to increase the volume or percentage of revenue or net income produced by the residential mortgage business.

Our financial condition, earnings and asset quality could be adversely affected if we are required to repurchase loans originated for sale by our Residential Lending department.

The Bank originates residential mortgage loans for sale to secondary market investors, subject to contractually specified and limited recourse provisions. Because the loans are intended to be originated within investor guidelines, using designated automated underwriting and product specific requirements as part of the loan application, the loans sold have a limited recourse provision. In general, the Bank may be required to repurchase a previously sold mortgage loan or indemnify the investor if there is non-compliance with defined loan origination or documentation standards, including fraud, negligence, material misstatement in the loan documents or noncompliance with applicable law. In addition, the Bank may have an obligation to repurchase a loan if the mortgagor has defaulted early in the loan term.

The potential mortgagor early default repurchase period is up to approximately twelve months after sale of the loan to the investor. The recourse period for fraud, material misstatement, breach of representations and warranties, noncompliance with law, or similar matters could be as long as the term of the loan. Mortgages subject to recourse are collateralized by single-family residential properties, have loan-to-value ratios of 80% or less, or have private mortgage insurance. Our experience to date has been minimal in the case of loan repurchases due to default, fraud, breach of representations, material misstatement, or legal noncompliance. Should repurchases become a material issue, our earnings and asset quality could be adversely impacted, which could adversely impact our share price.

Our growth strategy may not be successful, may be dilutive and may have other adverse consequences.

As previously mentioned, a key component of our growth strategy is to pursue acquisitions of other financial institutions or branches of other financial institutions, in addition to our pending merger with Patapsco Bancorp. As consolidation of the banking industry continues, the competition for suitable acquisition candidates may increase. We compete with other banking companies for acquisition opportunities, and there are a limited number of candidates that meet our acquisition criteria. Consequently, we may not be able to identify suitable candidates for acquisitions. If we are unable to locate suitable acquisition candidates willing to sell on terms acceptable to us, our net income could decline and we would be required to find other methods to grow our business. We may also open additional branches organically and expand into new markets or offer new products and services. These activities would involve a number of risks, including:

the time and expense associated with identifying and evaluating potential acquisitions and merger partners;

using inaccurate estimates and judgments to evaluate credit, operations, management and market risks with respect to the target institution or its branches or assets;

diluting our existing stockholders in an acquisition;

the time and expense associated with evaluating new markets for expansion, hiring experienced local management \cdot and opening new offices or branches as there may be a substantial time lag between these activities before we generate sufficient assets and deposits to support the costs of the expansion;

operating in markets in which we have had no or only limited experience; taking a significant amount of time negotiating a transaction or working on expansion plans, resulting in management's time and attention being diverted from the operation of our existing business;

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we may not be able to correctly identify profitable or growing markets for new branches;

• the time and expense associated with integrating the operations and personnel of the combined businesses;

the ability to realize the anticipated benefits of the acquisition;

creating an adverse short-term effect on our results of operations; losing key employees and customers as a result of an acquisition that is poorly received;

losing key employees and customers as a result of an acquisition that is poorly received

time and costs associated with regulatory approvals;

lack of information on a target institution or its branches or assets; inability to obtain additional financing (including by issuing additional common equity), if necessary, on favorable terms or at all; and

• unforeseen adjustments, write-downs, write-offs or restructuring or other impairment charges.

In addition, we may not be able to integrate successfully or operate profitably any financial institutions we may acquire. We may experience disruption and incur unexpected expenses in integrating acquisitions. Any acquisitions we do make may not enhance our cash flows, business, financial condition, results of operations or prospects and may have an adverse effect on our results of operations, particularly during periods in which the acquisitions are being integrated into our operations.

Also, the costs to lease and start up new branch facilities or to acquire existing financial institutions or branches, and the additional costs to operate these facilities, may increase our noninterest expense. It also may be difficult to adequately and profitably manage the anticipated growth from the new branches. We can provide no assurance that any new branch sites will successfully attract a sufficient level of deposits and other banking business to offset their operating expenses.

Further, we plan to make significant investment in our infrastructure in the immediate future. We also currently plan to open additional branches in the areas where we now operate and in other markets over the next few years. We anticipate that this will have the short-term effect of, at least temporarily, increasing our expenses at a faster rate than revenue growth, which will have an adverse effect on net income.

If we grow too quickly and are not able to control costs and maintain asset quality, growth could materially and adversely affect our financial condition and results of operations. Further, we may not be successful in our growth strategy, which would negatively impact our financial condition and results of operations.

We are subject to security and operational risks relating to our use of technology that could damage our reputation and our business.

Security breaches in our Internet banking activities or other communication and information systems could damage our reputation, result in a loss of customer business, subject us to additional regulatory scrutiny or expose us to civil litigation and possible financial liability, any of which could have a material adverse effect on our financial condition and results of operations. We rely on standard Internet and other security systems to provide the security and authentication necessary to effect secure transmission of data. These precautions may not protect our systems from compromises or breaches of our security measures. We continue to monitor developments in this area and consider whether additional protective measures are necessary or appropriate, and we have obtained insurance protection intended to cover losses due to network security breaches; there is no guarantee, however, that such insurance would cover all costs associated with any breach, damage or failure of our computer systems and network infrastructure.

We rely on certain external vendors. Our business is dependent on the use of outside service providers that support our day-to-day operations including data processing and electronic communications.

Our operations are exposed to risk that a service provider may not perform in accordance with established performance standards required in our agreements for any number of reasons including equipment or network failure, a change in their senior management, their financial condition, their product line or mix and how they support existing customers, or a simple change in their strategic focus. While we have comprehensive policies and procedures in place to mitigate risk at all phases of service provider management from selection, to performance monitoring and renewals, the failure of a service provider to perform in accordance with contractual agreements could be disruptive to our business, which could have a material adverse effect on our financial conditions and results of operations.

New regulations restrict our ability to originate residential real estate loans.

A CFPB rule effective January 10, 2014, is designed to clarify for lenders how they can avoid legal liability under the Dodd-Frank Act, which would otherwise hold lenders accountable for ensuring a borrower's ability to repay a mortgage. Loans that meet the "qualified mortgage" definition set forth in the rule will be presumed to have complied with the new ability to repay standard. Under the rule, a "qualified mortgage" loan must not contain certain specified features.

The rule also establishes general underwriting criteria for qualified mortgages, including that the consumer must have a total (or "back end") debt to income ratio that is less than or equal to 43%. Lenders must also verify and document the income and financial resources relied upon to qualify the borrower on the loan and underwrite the loan based on a fully amortizing payment schedule and maximum interest rate during the first five years, taking into account all applicable taxes, insurance and assessments. The CFPB's rule on qualified mortgages limits our ability to make residential mortgage loans that include a balloon payment, and may cause us to decide to limit certain types of other loans or loans to certain borrowers, and would make it more costly and/or or time consuming to make these loans, which could limit our growth or profitability.

In addition, the Dodd-Frank Act requires the regulatory agencies to issue regulations that require securitizers of loans to retain "not less than 5% of the credit risk for any asset that is not a qualified residential mortgage." The regulatory agencies issued a final rule to implement this requirement on October 21, 2014. The final rule aligns the definition of "qualified residential mortgage" with the definition of "qualified mortgage" issued by the CFPB for purposes of its regulations. The final rule is effective February 23, 2015. Compliance with the final rule is required beginning December 24, 2015 with respect to asset-backed securities collateralized by residential mortgages and beginning December 24, 2016 with respect to all other classes of asset-backed securities. The final rule could have a significant effect on the secondary market for loans and the types of loans we originate, and restrict our ability to make loans.

We must comply with extensive and complex governmental regulation, which could have an adverse effect on our business and our growth strategy, and we may be adversely affected by changes in laws and regulations.

The banking industry is subject to extensive regulation by state and federal banking authorities. Many of these regulations are intended to protect depositors, the public or the FDIC insurance funds, not stockholders. Regulatory requirements affect our lending practices, capital structure, investment practices, dividend policy and many other aspects of our business. These requirements may constrain our operations, and changes in regulations could adversely affect us. The burden imposed by these federal and state regulations may place banks in general, and Howard Bank specifically, at a competitive disadvantage compared to less regulated competitors. In addition, the cost of compliance with regulatory requirements could adversely affect our ability to operate profitably or increase profitability. See "Supervision and Regulation" for more information about applicable banking laws and regulations. Further, if we are not in compliance with such requirements, we could be subject to fines or other regulatory action that could restrict

our ability to operate or otherwise have a material adverse effect on our business and financial condition. Although we believe we are material compliance with all applicable regulations, it is possible there are violations of which we are unaware that could be discovered by our regulators in the course of an examination or otherwise, which could trigger such fines or other adverse consequences

Further, regulatory authorities have extensive discretion in their supervisory and enforcement activities, including the imposition of restrictions on our operations, classification of our assets and determination of the level of our allowance for credit losses. If regulators require Howard Bank to charge-off loans or increase its allowance for credit losses, our earnings would suffer. Any change in such regulation and oversight, whether in the form of regulatory policy, regulation, legislation or supervisory action, may have a material impact on our operations. For a further discussion, see "Supervision and Regulation."

In addition, because federal regulation of financial institutions changes regularly and is the subject of constant legislative debate, we cannot forecast how federal regulation of financial institutions may change in the future and impact our operations. Changes in regulation and oversight, including in the form of changes to statutes, regulations or regulatory policies or changes in interpretation or implementation of statutes, regulations or policies, could affect the service and products we offer, increase our operating expenses, increase compliance challenges and otherwise adversely impact our financial performance and condition. In addition, the burden imposed by these federal and state regulations may place banks in general, and Howard Bank specifically, at a competitive disadvantage compared to less regulated competitors.

The Company and the Bank implemented an enhanced organizational structure to ensure that the risk management activities of the Company are scaled to the entire enterprise. The office of strategic risk management, reporting to an executive vice president with direct reporting to the CEO and a dotted line reporting to the full board, is responsible for credit, compliance and operational, physical and IT security, legal, reputational and other on and off balance sheet risks.

Further, as a public company, we incur significant legal, accounting, insurance and other expenses in connection with compliance with rules of the SEC and the rules of The NASDAQ Stock Market LLC.

A worsening of economic conditions could adversely affect our results of operations and financial condition.

Although the U.S. economy has emerged from the severe recession that occurred in 2008 and 2009, economic growth has been slow and inconsistent. Recovery by many businesses has been impaired by lower consumer spending, and the ongoing lack of certainty in the economy continues to affect the willingness of companies to borrow to fund their future growth and otherwise decreases loan demand, which negatively impacts our business. A return to prolonged deteriorating economic conditions could significantly affect the markets in which we do business, the value of our loans and investments, and our ongoing operations, costs and profitability. Future declines in sales volumes and continued elevated unemployment levels may result in higher than expected loan delinquencies, increases in our nonperforming and criticized classified assets and a decline in demand for our products and services. These events may cause us to incur losses and may adversely affect our financial condition and results of operations.

Our profitability depends on interest rates, and changes in interest rates could have an adverse impact on our results of operations and financial condition.

Our results of operations will depend to a large extent on our "net interest income," which is the difference between the interest expense incurred in connection with our interest-bearing liabilities, such as interest on deposit accounts, and the interest income received from our interest-earning assets, such as loans and investment securities. Changes in interest rates can increase or decrease our net interest income, because different types of assets and liabilities may react differently, and at different times, to market interest rate changes. When interest bearing liabilities mature or reprice more quickly than interest earning assets in a period, an increase in interest rates could reduce net interest income. Similarly, when interest earning assets mature or reprice more quickly than interest bearing liabilities, falling interest rates could reduce net interest income. Additionally, an increase in interest rates may, among other things, reduce the demand for loans and our ability to originate loans and decrease loan repayment rates. A decrease in the general level of interest rates may affect us through, among other things, increased prepayments on our loan and mortgage-backed securities portfolios and increased competition for deposits. Accordingly, changes in the level of market interest rates affect our net yield on interest earning assets, loan origination volume, loan and mortgage-backed securities portfolios, and our overall results. Fluctuations in interest rates are highly sensitive to many factors that are not predictable or controllable. Therefore, while we attempt to manage our risk from changes in market interest rates by adjusting the rates, maturity, repricing, and balances of the different types of interest-earning assets and interest bearing liabilities, we might not be able to maintain a consistent positive spread between the interest that we receive and the interest that we pay. As a result, a rapid increase or decrease in interest rates could have an adverse effect on our net interest margin and results of operations.

The capital rules that were issued require insured depository institutions and their holding companies to hold more capital. The impact of the new rules on our financial condition and operations is uncertain but could be materially adverse.

In July 2013, the Federal Reserve adopted a final rule for the Basel III capital framework. These rules substantially amend the regulatory risk-based capital rules applicable to us. The rules phase in over time beginning in 2015 and will become fully effective in 2019. The rules apply to the Company as well as to the Bank. Beginning in 2015, our minimum capital requirements are (i) a common Tier 1 equity ratio of 4.5%, (ii) a Tier 1 capital (common Tier 1 capital plus Additional Tier 1 capital) of 6% (up from 4%) and (iii) a total capital ratio of 8% (the current requirement). Our leverage ratio requirement will remain at the 4% level now required. Beginning in 2016, a capital conservation buffer will phase in over three years, ultimately resulting in a requirement of 2.5% on top of the common Tier 1, Tier 1 and total capital requirements, resulting in a required common Tier 1 equity ratio of 7%, a Tier 1 ratio of 8.5%, and a total capital ratio of 10.5%. Failure to satisfy any of these three capital requirements will result in limits on paying dividends, engaging in share repurchases and paying discretionary bonuses. These limitations will establish a maximum percentage of eligible retained income that could be utilized for such actions.

Monetary policy and general economic conditions will influence our results of operations.

Governmental economic and monetary policy will influence our results of operations. The rates of interest payable on deposits and chargeable on loans are affected by fiscal policy as determined by various governmental and regulatory authorities, in particular the FRB, as well as by national, state and local economic conditions. In addition, adverse general economic conditions may impair the ability of our borrowers to repay loans.

Regulations pursuant to the Dodd-Frank Act may adversely impact our results of operations, liquidity or financial condition.

The Dodd-Frank Act represents a comprehensive overhaul of the U.S. financial services industry. The Dodd-Frank Act requires the CFPB and other federal agencies to implement many new and significant rules and regulations to implement its various provisions. There are a number of regulations under the Dodd-Frank Act that have not yet been proposed or adopted. We will not know the full impact of the Dodd-Frank Act on our business until regulations implementing the statute are adopted and implemented, which could be years. As a result, we cannot predict the full extent to which the Dodd-Frank Act will impact our business, operations or financial condition. However, compliance with these new laws and regulations may require us to make changes to our business and operations and will likely result in additional costs and a diversion of management's time from other business activities, any of which may adversely impact our results of operations, liquidity or financial condition. For a more detailed description of the Dodd-Frank Act, see "Supervision and Regulation—The Dodd-Frank Act."

Because the Bank serves a limited market area, we could be more adversely affected by an economic downturn in our market area than our larger competitors that are more geographically diverse.

Our current primary market area consists of the Greater Baltimore Metropolitan Area. Broad geographic diversification is not currently part of our community bank focus. As a result, if our market areas suffer an economic downturn, our business and financial condition may be more severely affected by such circumstances. Factors that adversely affect the economy in our target markets could reduce our deposit base and demand for our services and products and increase our credit losses. Consequently, we may be adversely affected, potentially materially, by adverse changes in economic conditions in and around our market areas. Our larger bank competitors, for example, serve more geographically diverse market areas, parts of which may not be affected by the same economic conditions that may exist in our market areas.

Further, unexpected changes in the national and local economy may adversely affect our ability to attract deposits and to make loans. In particular, due to the proximity of our primary and secondary market areas to Washington, D.C., decreases in spending by the Federal government, could impact us more than banks that serve a larger or a different geographical area. Such risks are beyond our control and may have a material adverse effect on our financial condition and results of operations and, in turn, the value of our common stock.

The small to medium-sized businesses that the Bank lends to may have fewer resources to weather a downturn in the economy, which may impair a borrower's ability to repay a loan to the Bank that could materially harm our operating results.

The Bank targets its business development and marketing strategy primarily to serve the banking and financial services needs of small to medium-sized businesses. These small to medium-sized businesses frequently have smaller market share than their competition, may be more vulnerable to economic downturns, often need substantial additional capital to expand or compete and may experience significant volatility in operating results. Any one or more of these factors may impair the borrower's ability to repay a loan. In addition, the success of a small to medium-sized business often depends on the management talents and efforts of one or two persons or a small group of persons, and the death, disability to repay a loan. Economic downturns and other events that negatively impact our market areas could cause the Bank to incur substantial credit losses that could negatively affect our results of operations and financial condition.

We depend heavily on six key employees, Mary Ann Scully, Robert A. Altieri, Paul G. Brown, Dennis E. Finnegan, Charles E. Schwabe and George C. Coffman, to continue the implementation of our long-term business strategy and the loss of their services could disrupt our operations and result in reduced earnings.

Ms. Scully is our President and Chief Executive Officer, Mr. Altieri is an Executive Vice President, President of our Mortgage Banking Division and our Chief Specialty Lending Officer, Mr. Brown is an Executive Vice President and our Chief Lending Officer and Chief Client Services Officer, Mr. Finnegan is an Executive Vice President and our Chief Deposit Officer, Mr. Schwabe is an Executive Vice President and our Secretary, Chief Administrative Officer, and Chief Risk Officer, and Mr. Coffman is an Executive Vice President and our Chief Financial Officer. We believe that our continued growth and future success will depend in large part on the skills of our senior management team. We believe our senior management team possesses valuable knowledge about and experience in the banking industry and that their knowledge and relationships would be difficult to replicate. We have entered into an employment agreement with each of Ms. Scully, Mr. Altieri, Mr. Brown, Mr. Finnegan, Mr. Schwabe and Mr. Coffman and acquired key-person life insurance on each such executive officer, but the existence of such agreements and insurance does not assure that we will be able to retain their services or recover losses associated with the loss of their services. The unexpected loss of the services of Ms. Scully, Mr. Altieri, Mr. Brown, Mr. Brown, Mr. Finnegan, Mr. Schwabe or Mr. Coffman could have a material adverse effect on our business, operations, financial condition and operating results, as well as the value of our common stock.

Federal and state banking agencies periodically conduct examinations of our business, including compliance with laws and regulations, and our failure to comply with any supervisory actions to which we are or become subject as a result of such examinations may adversely affect us.

State and federal banking agencies, including the FDIC and the Maryland Office of the Commissioner of Financial Regulation, periodically conduct examinations of our business, including compliance with laws and regulations. If, as a result of an examination, a state or federal banking agency were to determine that the financial condition, capital resources, asset quality, earnings prospects, management, liquidity or other aspects of any of our operations had become unsatisfactory, or that we or our management was in violation of any law or regulation, it may take a number of different remedial actions as it deems appropriate. These actions include the power to enjoin "unsafe or unsound" practices, to require affirmative actions to correct any conditions resulting from any violation or practice, to issue an administrative order that can be judicially enforced, to direct an increase in our capital, to restrict our growth, to assess civil monetary penalties against our officers or directors, to remove officers and directors and, if it is concluded that such conditions cannot be corrected or there is an imminent risk of loss to depositors, to terminate the Bank's deposit insurance. If we become subject to such regulatory actions, our business, results of operations and reputation may be negatively impacted.

Many of our new activities and expansion plans require regulatory approvals, and failure to obtain them may restrict our growth.

We intend to complement and expand our business by continuing to pursue strategic acquisitions of banks and other financial institutions. We must generally receive regulatory approval before we can acquire an institution or business. Such regulatory approvals may not be granted on terms that are acceptable to us, or at all. We may also be required to sell branches as a condition to receiving regulatory approval, which condition may not be acceptable to us or, if acceptable to us, may reduce the benefit of any acquisition.

In addition to the acquisition of existing financial institutions, as opportunities arise, we plan to continue de novo branching as a part of our internal growth strategy and possibly enter into new markets through de novo branching. De novo branching and any acquisition carries with it numerous risks, including the inability to obtain all required regulatory approvals. The failure to obtain these regulatory approvals for potential future strategic acquisitions and de novo branches may impact our business plans and restrict our growth.

Failure to pay dividends on our Series AA Preferred Stock may have negative consequences, including external involvement in our board of directors.

If dividends on the Series AA Preferred Stock are not paid in full for six quarterly dividend periods, whether or not consecutive, and if the aggregate liquidation preference amount of the then-outstanding shares of Series AA Preferred Stock is at least \$25.0 million, the total number of positions on our board of directors will automatically increase by two and the holders of the Series AA Preferred Stock, acting as a single class, will have the right to elect two individuals to serve in the new director positions. This right and the terms of such directors will end when we have paid full dividends for at least four consecutive quarterly dividend periods. If full dividends have not been paid on the Series AA Preferred Stock for five or more quarterly dividend periods, whether or not consecutive, we must invite a representative selected by the holders of a majority of the outstanding shares of Series AA Preferred Stock, voting as a single class, to attend all meetings of our board of directors in a nonvoting observer capacity. Any such representative would not be obligated to attend any board meeting to which he or she is invited, and this right will end when we have paid full dividends for at least four consecutive dividend periods.

Our preferred shares impact net income available to our common stockholders and our earnings per share.

The dividends declared on the Series AA Preferred Stock reduce net income available to common shareholders and our earnings per common share. The Series AA Preferred Stock will also receive preferential treatment in the event of liquidation, dissolution or winding up of the Company.

We may be required to raise additional capital in the future, but that capital may not be available when it is needed on attractive terms, or at all.

We are required by regulatory authorities to maintain adequate levels of capital to support our operations. Our capital requirements for the foreseeable future are currently satisfied. We may at some point, however, need to raise additional capital to support our continued growth, or if our liquidity is adversely affected by external factors such as worsening economic conditions or continued economic uncertainty. Our ability to raise additional capital, if needed, will depend in part on conditions in the capital markets at that time, which are outside our control. Accordingly, we cannot assure you of our ability to raise additional capital, if needed, on terms acceptable to us. If we cannot raise additional capital when needed, our ability to further expand our operations could be materially impaired, or the failure to raise additional capital could have a material adverse effect on our liquidity, financial condition or results of operations. In addition, if we decide to raise additional equity capital, your interest in Howard Bancorp could be diluted. Furthermore, if we raise additional capital through the issuance of debt securities, there can be no assurance that sufficient revenues or cash flow will exist to service such debt.

The market value of our investments could negatively impact stockholders' equity.

All of our securities investment portfolio as of December 31, 2014 has been designated as available for sale pursuant to Statement of Financial Accounting Standards, Accounting Standards Codification ("ASC") Topic 320 – "Investments. ASC Topic 320 requires that unrealized gains and losses in the estimated value of the available for sale portfolio be "marked to market" and reflected as a separate item in stockholders' equity, net of tax. If the market value of the investment portfolio declines, this could cause a corresponding decline in stockholders' equity.

Our lending limit may limit our growth.

We are limited in the amount we can loan to a single borrower by the amount of our capital. Generally, under current law, we may lend up to 15% of our unimpaired capital and surplus to any one borrower. Based upon our current capital levels, the amount we may lend is significantly less than that of many of our competitors and may discourage potential borrowers who have credit needs in excess of our lending limit from doing business with us. We accommodate larger loans by selling participations in those loans to other financial institutions, but this strategy may not always be available.

We are a community bank and our ability to maintain our reputation is critical to the success of our business and the failure to do so may materially adversely affect our performance.

We are a community bank, and our reputation is one of the most valuable components of our business. As such, we strive to conduct our business in a manner that enhances our reputation. This is done, in part, by recruiting, hiring and retaining employees who share our core values of being an integral part of the communities we serve, delivering superior service to our customers and caring about our customers and associates. If our reputation is negatively affected, by the actions of our employees or otherwise, our business and, therefore, our operating results may be materially adversely affected.

Consumers may decide not to use banks to complete their financial transactions.

Technology and other changes are allowing consumers to complete financial transactions through alternative methods that historically have involved banks. For example, consumers can now maintain funds that would have historically been held as bank deposits in brokerage accounts, mutual funds or general-purpose reloadable prepaid cards. Consumers can also complete transactions such as paying bills and transferring funds directly without the assistance of banks. The process of eliminating banks as intermediaries could result in the loss of fee income, as well as the loss

of customer deposits and the related income generated from those deposits. The loss of these revenue streams and the lower cost of deposits as a source of funds could have a material adverse effect on our financial condition and results of operations.

Strong competition within our market area may limit our growth and profitability.

Competition in the banking and financial services industry is intense. In our market area, we compete with, among others, commercial banks, savings institutions, mortgage brokerage firms, credit unions, mutual funds, and insurance companies operating locally and elsewhere. There are also a number of smaller community-based banks that pursue similar operating strategies as Howard Bank. In addition, some of our competitors have recently offered loans with lower fixed rates and loans on more attractive terms than we have been willing to offer. Our continued profitability depends upon our continued ability to successfully compete in our market area. The greater resources and deposit and loan products offered by our competition may limit our ability to increase our interest earning assets. See "Item 1. Business—Competition" for more information about competition in our market area.

The financial services industry could become even more competitive as a result of legislative, regulatory and technological changes and continued consolidation. Banks, securities firms and insurance companies can merge under the umbrella of a financial holding company, which can offer virtually any type of financial service, including banking, securities underwriting, insurance (both agency and underwriting) and merchant banking. Increased competition among financial services companies due to the recent consolidation of certain competing financial institutions may adversely affect our ability to market our products and services. Also, technology has lowered barriers to entry and made it possible for banks to compete in our market without a retail footprint by offering competitive rates, as well as non-banks to offer products and services traditionally provided by banks. Additionally, due to their size, many competitors may offer a broader range of products and services as well as better pricing for certain products and services than we can, which could affect our ability to grow and remain profitable on a long-term basis. Our profitability depends upon our ability to successfully compete in our market area. If we must raise interest rates paid on deposits or lower interest rates charged on our loans, our net interest margin and profitability could be adversely affected.

Anti-takeover provisions in our corporate documents and in Maryland corporate law may make it difficult and expensive to remove current management.

Anti-takeover provisions in our corporate documents and in Maryland law may render the removal of our existing board of directors and management more difficult. Consequently, it may be difficult and expensive for our stockholders to remove current management, even if current management is not performing adequately.

Our articles of incorporation limit the liability of our directors and officers.

Our articles of incorporation provide that, to the full extent permitted by Maryland law, no director or officer of Howard Bancorp will be liable to us or our stockholders for money damages. This limitation could impair the ability of us and our stockholders to recover for damages resulting from acts or omissions of our directors and officers.

The market price for our common stock may be volatile.

The market price of our common stock could be subject to significant fluctuations due to changes in sentiment in the market regarding our operations or business prospects. Factors that may affect market sentiment include:

- operating results that vary from the expectations of our management or of securities analysts and investors; • developments in our business or in the financial service sector generally;
- •regulatory or legislative changes affecting our industry generally or our business and operations in particular;
- operating and securities price performance of companies that investors consider to be comparable to us; • changes in estimates or recommendations by securities analysts;
- announcements of strategic developments, acquisitions, dispositions, financings and other material events by us or our competitors; and
- changes in financial markets and national and local economies and general market conditions, such as interest rates and stock, commodity, credit or asset valuations or volatility.

While the U.S. and other governments continue efforts to restore confidence in financial markets and promote economic growth, market and economic turmoil could still occur in the near- or long-term, negatively affecting our business, financial condition and results of operations, as well as the price, trading volume and volatility of our common stock.

We can sell additional shares of common stock without consulting stockholders and without offering shares to existing stockholders, which would result in dilution of stockholders' interests in Howard Bancorp and could depress our stock price.

Our articles of incorporation currently authorize an aggregate of 10 million shares of common stock, 4,145,547 of which are outstanding as of the date of this report, 264,652 of which are reserved for issuance pursuant to outstanding options granted under our stock incentive plans and employment agreements and 641,707 of which are reserved for issuance pursuant to future grants under our stock incentive plans. Our board of directors has the authority to amend our articles of incorporation, without stockholder approval, to increase or decrease the aggregate number of shares of stock or the number of shares of any class of stock that we have the authority to issue. The board of directors is further authorized to issue additional shares of common stock and preferred stock, at such times and for such consideration as it may determine, without stockholder action. The ability of the board of directors to increase our authorized shares of capital stock, and the existence of authorized but unissued shares of common stock and preferred stock, could have the effect of rendering more difficult or discouraging hostile takeover attempts, or of facilitating a negotiated acquisition and could affect the market for and price of our common stock. Because our common stockholders do not have preemptive rights to purchase shares of our capital stock (that is, the right to purchase a stockholder's pro rata share of any securities issued by Howard Bancorp), any future offering of capital stock could have a dilutive effect on holders of our common stock.

Item 1B. Unresolved Staff Comments

Not applicable

Item 2. Properties

Our headquarters are located in Ellicott City, Maryland. As of December 31, 2014, the Bank owned four of 13 full-service branches and leased the remaining branches. See Note 9 to the Notes to the Consolidated Financial Statements for additional information.

We own the following properties, which had a book value of \$9.3 million at December 31, 2014:

Branch Locations	Address	Description
Maple Lawn (1)	10985 Johns Hopkins Road Laurel, MD 20723	Full service branch with drive-thru
Centennial	10161 Baltimore National Pike Ellicott City, MD 21042	Full service branch with drive-thru
Aberdeen	3 West Bel Air Aberdeen, MD 21001	Full service branch with drive-thru
Elkton (2)	305 Augustine Herman Highway Elkton, MD 21921	Full service branch with drive-thru
Office Locations	Address	Description
Operations Center	10163 Baltimore National Pike Ellicott City, MD 21042	Location of Loan & Deposit operations and other support functions

(1) For the branch location at Maple Lawn, the premises is owned, but is subject to a ground lease.

(2) For the branch location in Elkton, the premises is owned, but is subject to a ground lease.

We lease the following facilities as of December 31, 2014:

Branch Locations Address

Description

		r
Snowden River	6011 University Blvd Suite 150 Ellicott City, MD 21043	Full service branch with drive-thru
Defense Highway	116 Defense Highway Annapolis, MD 21401	Full service branch with drive-thru
Towson	22 West Pennsylvania Avenue Baltimore, MD 21204	Full service branch with drive-thru

Bel Air	101 North Main Street Bel Air, MD 21014	Full service branch with drive-thru
Havre de Grace	800 Revolution Street Havre de Grace, MD 21078	Full service branch with drive-thru
Rising Sun	6 Pearl Street Rising Sun, MD 21911	Full service branch with drive-thru
Dublin	3535 Conowingo Road Street, MD 21154	Full service branch with drive-thru
Aberdeen 2	201 West Bel Air Avenue Aberdeen, MD 21001	Full service branch with drive-thru
Penn Hill	2006 Lancaster Pike Peach Bottom, PA 17563	Full service branch with drive-thru

Office Locations	Address	
	6011	
Corporate	University Blvd Suite	
Office	370 Ellicott	
	City, MD 21043	
Towson	21043 22 West	6
Office	Pennsylvania	
	Avenue Suite 102 Baltimore	
	MD 21204	,

The Company's Senior Secured Debt and its convertible notes contain representations, warranties and covenants that are typical for agreements of this type, including restrictions that would limit the Company's ability to incur additional indebtedness, incur liens, pay dividends or make restricted payments, dispose of assets, make investments and merge or consolidate with another person. However, while there are affirmative covenants, there are no financial maintenance covenants and no restrictions on the Company's ability to issue additional common stock to fund future working capital needs. The debt covenants associated with the Senior Secured Debt were negotiated by the parties with a view towards the Company's operating and financial condition as it existed at the time the agreements were executed. At June 30, 2018, the Company was in compliance with its debt covenants.

The Company's cash resources provide the Company with sufficient funds to meet its working capital needs for a period beyond one year from this quarterly report issuance date. The Company may meet working capital requirements beyond this period through a variety of means, including construction financing, equity or debt placements, through the sale or other disposition of assets or reductions in operating costs. Equity placements would be undertaken only to the extent necessary, so as to minimize the dilutive effect of any such placements upon the Company's existing stockholders. Further, the Company's option to acquire an additional 124-mile extension of its Northern Pipeline will require a \$20 million payment by December 2018. The Company does not currently have the cash resources on hand to exercise this option and has engaged an investment banker to pursue alternatives that will provide the resources to allow the Company to exercise this option. If the Company is unable to exercise this option, then its Northern Pipeline opportunities will be limited to the 96-mile segment it currently owns.

Limitations on the Company's liquidity and ability to raise capital may adversely affect it. Sufficient liquidity is critical to meet the Company's resource development activities. Although the Company currently expects its sources of capital to be sufficient to meet its near-term liquidity needs, there can be no assurance that its liquidity requirements will continue to be satisfied. If the Company cannot raise needed funds, it might be forced to make substantial reductions in its operating expenses, which could adversely affect its ability to implement its current business plan and ultimately its viability as a company.

Supplemental Cash Flow Information

Under the terms of the Senior Secured Debt, the Company is required to pay 25% of all future quarterly interest payments in cash. During the six months ended June 30, 2018, approximately \$630 thousand in interest payments on the corporate secured debt was paid in cash. No other payments are due on the Senior Secured Debt or the Company's convertible notes prior to their maturities.

During the six months ended June 30, 2018, approximately \$1.96 million in convertible notes were converted by certain of the Company's lenders. As a result, 257,923 shares of common stock were issued to the lenders. 7

Recent Accounting Pronouncements

Accounting Guidance Not Yet Adopted

In June 2018, the Financial Accounting Standards Board ("FASB") issued an accounting standards update which simplifies the accounting for share-based payments granted to nonemployees for goods and services. This update is effective for fiscal years beginning after December 15, 2018, and for interim periods within those fiscal years. The Company is currently evaluating this new guidance and cannot determine the impact of this standard at this time.

In February 2016, the FASB issued an accounting standards update related to lease accounting including enhanced disclosures. Under the new standard, a lease is defined as a contract, or part of a contract, that conveys the right to control the use of identified assets for a period of time in exchange for consideration. Lessees will classify leases with a term of more than one year as either operating or finance leases and will need to recognize a right-of-use asset and a lease liability. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. This guidance is effective January 1, 2019, but early adoption is permitted. The Company is currently evaluating this new guidance and cannot determine the impact of this standard at this time.

In July 2017, the FASB issued an accounting standards update to provide new guidance for the classification analysis of certain equity-linked financial instruments, or embedded features, with down round features, as well as clarify existing disclosure requirements for equity-classified instruments. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. The guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating this new guidance and cannot determine the impact of this standard at this time.

Accounting Guidance Adopted

In May 2014, the FASB issued an accounting standards update on revenue recognition including enhanced disclosures. Under the new standard, revenue is recognized when (or as) a good or service is transferred to the customer and the customer obtains control of the good or service. The Company adopted this guidance on January 1, 2018, and the new standard did not have a material impact on the Company's condensed consolidated financial statements.

In August 2016, the FASB issued an accounting standards update which eliminates the diversity in practice related to the classification of certain

cash receipts and payments in the statement of cash flows, by adding or clarifying guidance on eight specific cash flow issues. This guidance is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company adopted this guidance on January 1, 2018, and the new standard had no impact on the Company's condensed consolidated financial statements.

In November 2016, the FASB issued an accounting standards update which requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the total beginning and ending amounts for the periods shown on the statement of cash flows. The Company adopted this guidance in the first quarter of 2018. The balance of cash, cash equivalents, and restricted cash as shown in the condensed consolidated statements of cash flows is comprised of the following:

Cash, Cash Equivalents and Restricted	June 30,	December	June 30,
Cash	2018	31, 2017	2017
(in thousands)			
Cash and Cash Equivalents	\$20,237	\$ 13,030	\$19,434
Restricted Cash included in Other Assets	133	133	133
Cash, Cash Equivalents and Restricted			
Cash in the Consolidated Statement of Cash	l		
Flows	\$20,370	\$13,163	\$19,567

The restricted cash amounts included in Other Assets primarily represent a deposit from a water project participant related to a cost-sharing agreement.

In May 2017, the FASB issued an accounting standards update which clarifies which changes to terms or conditions of a share-based payment award require an entity to apply modification accounting, in accordance with Topic 218. This guidance is effective for annual periods beginning after December 15, 2017, and interim periods within those. The Company adopted this guidance on January 1, 2018, and the new standard had no impact on the Company's condensed consolidated financial statements.

NOTE 2 - LONG-TERM DEBT

The carrying value of the Company's secured debt approximates fair value. The fair value of the Company's debt (Level 2) is determined based on an estimation of discounted future cash flows of the debt at rates currently quoted or offered to the Company by its lenders for similar debt instruments of comparable maturities by its lenders.

The fair value of the Company's convertible debt exceeds its carrying value of approximately \$67.2 million, which includes accreted interest, by approximately \$42.9 million due to the increased value of its conversion feature. The conversion feature's fair value increases as the Company's common stock price increases. The fair value of the conversion feature (Level 3) is determined using the Black-Scholes model. Significant inputs to the model were the conversion price (\$6.75), the number of shares of common stock that could be acquired upon conversion as of June 30, 2018, the Company's stock price as of June 30, 2018 of \$13.10 and stock volatility of 40%, which was determined using our publicly-traded stock price over the last two years.

NOTE 3 - STOCK-BASED COMPENSATION PLANS AND WARRANTS

The Company has issued options and has granted stock awards pursuant to its 2009 Equity Incentive Plan and 2014 Equity Incentive Plan, as described below.

2009 Equity Incentive Plan

The 2009 Equity Incentive Plan was approved by stockholders at the 2009 Annual Meeting. The plan provides for the grant and issuance of up to 850,000 shares and options to the Company's employees and consultants. The plan became effective when the Company filed a registration statement on Form S-8 on December 18, 2009. All options issued under the 2009 Equity Incentive Plan have a ten-year term with vesting periods ranging from issuance date to 24 months.

2014 Equity Incentive Plan

The 2014 Equity Incentive Plan was approved by stockholders at the June 10, 2014 Annual Meeting. The plan provides for the grant and issuance of up to 675,000 shares and options to the Company's employees, directors and consultants. Upon approval of the 2014 Equity Incentive Plan, all shares of common stock that remained available for award under the 2009 Equity Incentive Plan were cancelled.

Under the 2014 Equity Incentive Plan, each outside director receives \$30,000 of cash compensation and receives a deferred stock award consisting of shares of the Company's common stock with a value equal to \$20,000 on June 30 of each year. The award accrues on a quarterly basis, with \$7,500 of cash compensation and \$5,000 of stock earned for each fiscal quarter in which a director serves. The deferred stock award vests automatically on January 31 in the year following the award date. All options that have been issued under the above plans have been issued to officers, employees and consultants of the Company. In total, options to purchase 507,500 shares were unexercised and outstanding on June 30, 2018 under the two equity incentive plans.

The Company recognized no stock option related compensation costs in each of the six months ended June 30, 2018 and 2017. Additionally, no options were exercised during the six months ended June 30, 2018.

Stock Awards to Directors, Officers, and Consultants

The Company has granted stock awards pursuant to its 2009 Equity Incentive Plan and 2014 Equity Incentive Plan.

Of the total 850,000 shares reserved under the 2009 Equity Incentive Plan, 297,265 shares were issued as share grants and 507,500 were issued as options. Upon approval of the 2014 Equity Incentive Plan in June 2014, 45,235 shares remaining available for award under the 2009 Equity Incentive Plan were cancelled. 10

Of the total 675,000 shares reserved under the 2014 Equity Incentive Plan, 627,699 shares have been awarded to the Company directors, consultants and employees as of June 30, 2018. Of the 627,699 shares awarded, 10,224 shares were awarded to the Company's directors for services performed during the plan year ended June 30, 2018. These shares will vest and be issued on January 31, 2019.

The Company recognized stock-based compensation costs of \$122,000 and \$105,000 for the three months ended June 30, 2018 and 2017, respectively; \$227,000 and \$1,921,000 for the six months ended June 30, 2018 and 2017, respectively.

Warrants

In conjunction with the closing of the Senior Secured Debt in May 2017, the Company issued to its lender a warrant to purchase an aggregate 362,500 shares of its common stock ("Warrant"). The Company recorded a debt discount at the time of the closing of the Senior Secured Debt in the amount of \$2.9 million which was the fair value of the Warrant at the time it was issued. The debt discount is being amortized through December 2019. The fair value of the Warrant is remeasured each reporting period, and the change in warrant value is recorded as an adjustment to the derivative liability. The warrant has a five-year term and an exercise price of \$14.94 per share, subject to adjustment.

Total unrealized gains of \$859 thousand for warrant liabilities accounted for as derivatives have been recorded in interest expense in the six months ended June 30, 2018.

NOTE 4 – INCOME TAXES

Effective January 1, 2018, the Tax Cuts and Jobs Act ("TCJA"), which was enacted in the United States on December 22, 2017, led to the reduction of the effective federal corporate tax rate from 35% to 21%. As of June 30, 2018, the Company had net operating loss ("NOL") carryforwards of approximately \$297 million for federal income tax purposes and \$177 million for California state income tax purposes. Such carryforwards expire in varying amounts through the year 2038. Use of the carryforward amounts is subject to an annual limitation as a result of ownership changes.

As of June 30, 2018, the Company possessed unrecognized tax benefits totaling approximately \$1.8 million. None of these, if recognized, would affect the Company's effective tax rate because the Company has recorded a full valuation allowance against these assets.

The Company's tax years 2014 through 2017 remain subject to examination by the Internal Revenue Service, and tax years 2013 through 2017 remain subject to examination by California tax jurisdictions. In addition, the Company's loss carryforward amounts are generally subject to examination and adjustment for a period of three years for federal tax purposes and four

years for California purposes, beginning when such carryovers are utilized to reduce taxes in a future tax year. 11

Because it is more likely than not that the Company will not realize its net deferred tax assets, it has recorded a full valuation allowance against these assets. Accordingly, no deferred tax asset has been reflected in the accompanying condensed consolidated balance sheet.

<u>NOTE 5 – NET LOSS PER COMMON SHARE</u>

Basic net loss per share is computed by dividing the net loss by the weighted-average common shares outstanding. Options, deferred stock units, warrants and the zero coupon term loan convertible into or exercisable for certain shares of the Company's common stock were not considered in the computation of net loss per share because their inclusion would have been antidilutive. Had these instruments been included, the fully diluted weighted average shares outstanding would have increased by approximately 11,266,000 and 10,777,000 for the three months ended June 30, 2018 and 2017, respectively; and 11,265,000 and 10,736,000 for the six months ended June 30, 2018 and 2017, respectively.

NOTE 6 – FAIR VALUE MEASUREMENTS

The following table presents information about warrant derivative liabilities that are measured at fair value on a recurring basis as of June 30, 2018, and indicate the fair value hierarchy of the valuation techniques we utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. We consider a security that trades at least weekly to have an active market. Fair values determined by Level 2 inputs utilize data points that are observable, such as quoted prices, interest rates and yield curves. Fair values determined by Level 3 inputs are unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability.

	Derivatives at Fair Value as of				
	June 30, 2018				
	Lev	eLe	vel		
(in thousands)	1	2		Level 3	Total
Warrant derivative liabilities	\$ -	\$	-	\$ (1,528	3) \$ (1,528)
Total warrant derivative liabilities	\$ -	\$	-	\$ (1,528	3) \$ (1,528)

The following table presents a reconciliation of Level 3 activity for the three month period ended June 30, 2018:

	Level 3
	Liabilities
	Warrant
	Derivative
(in thousands)	Liabilities

Balance at March 31, 2018	\$ 1,871	
Unrealized Gains, net	(343)
Balance at June 30, 2018	\$ 1,528	

The following table presents a reconciliation of Level 3 activity for the six month period ended June 30, 2018:

(in thousands)	Level 3 Liabilities Warrant Derivative Liabilities
Balance at December 31, 2017	\$ 2,387
Unrealized Gains, net	(859)
Balance at June 30, 2018	\$ 1,528

The Warrants are Level 3 and are valued using a lattice model that uses unobservable inputs such as volatility and future probability of issuing new shares.

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

In connection with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, the following discussion contains trend analysis and other forward-looking statements. Forward-looking statements can be identified by the use of words such as "intends", "anticipates", "believes", "estimates", "projects", "forecasts", "expects", "plans" and "proposes". Although we believe that the expectations reflected in these forward-looking statements are based on reasonable assumptions, there are a number of risks and uncertainties that could cause actual results to differ materially from these forward-looking statements. These include, among others, our ability to maximize value from our land and water resources; and our ability to obtain new financings as needed to meet our ongoing working capital needs. See additional discussion under the heading "Risk Factors" in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017.

Overview

We are a land and water resource development company with 45,000 acres of land in three areas of eastern San Bernardino County, California. Virtually all of this land is underlain by high-quality, naturally recharging groundwater resources, and is situated in proximity to the Colorado River and the Colorado River Aqueduct ("CRA"), California's primary mode of water transportation for imports from the Colorado River into the State. Our properties are suitable for various uses, including large-scale agricultural development, groundwater storage and water supply projects. Our main objective is to realize the highest and best use of these land and water resources in an environmentally responsible way.

We believe that the long-term highest and best use of our land and water assets will be realized through the development of a combination of water supply and storage projects at our properties. Therefore, we have primarily focused on the development of the Cadiz Valley Water Conservation, Recovery and Storage Project ("Water Project" or "Project"), which will capture and conserve millions of acre-feet¹ of native groundwater currently being lost to evaporation from the aquifer system beneath our 35,000-acre property in the Cadiz and Fenner valleys of eastern San Bernardino County (the "Cadiz/Fenner Property"), and deliver it to water providers throughout Southern California (see "Water Resource Development"). A second phase of the Water Project would offer storage of up to one million acre-feet of imported water in the aquifer system. We believe that the ultimate implementation of this Water Project will provide a significant source of future cash flow.

The primary factor driving the value of such projects is ongoing pressure on California's traditional water supplies and the resulting demand for new, reliable supply solutions that can meet both immediate and long-term water needs. Available supply is constrained by regulatory restrictions on each of the State's three main water sources: the CRA, the State Water Project,

which provides water supplies from Northern California to the central and southern parts of the state, and the Los Angeles Aqueduct, which delivers water from the eastern Sierra Nevada mountains to Los Angeles. Southern California's water providers rely on imports from these systems for a majority of their water supplies, but deliveries from all three into the region have been below capacity over the last several years, even in wet years.

¹ One acre-foot is equal to approximately 326,000 gallons or the volume of water that will cover an area of one acre to a depth of one-foot. An acre-foot is generally considered to be enough water to meet the annual water needs of one average California household. 14

Further, the availability of supplies in California differs greatly from year to year due to natural hydrological variability. Over the last decade, California struggled through a historic drought featuring record-low winter precipitation. Then, following a series of strong storms that delivered record amounts of rain and snow during the 2016-2017 winter, the State recovered. Yet, the 2017-2018 winter has delivered few precipitation events and, through July 2018, 86% of the State is again abnormally dry with all of Southern California experiencing drought conditions, according to the US Drought Monitor. Drought, dry conditions and rapid swings between wet and dry years challenges California's traditional supply system and supports the need for reliable storage and local supply.

Given the variety of challenges and limitations faced by the State's traditional infrastructure, Southern California water providers are presently pursuing investments in storage, supply and infrastructure to meet long-term demand. The Cadiz Water Project is a local supply option in Southern California that would help address the region's water supply challenges by providing new reliable supply and local groundwater storage opportunities (see "Water Resource Development" below) in both dry and wet years. Following a multi-year California Environmental Quality Act ("CEQA") review and permitting process, the Water Project received permits that allow the capture and conservation of 2.5 million acre-feet of groundwater over 50 years in accordance with the terms of a groundwater management plan approved by San Bernardino County, the public agency responsible for groundwater use at the project area.

In addition to our Water Project proposal, we are engaged in agricultural joint ventures at the Cadiz/Fenner Property that put some of the groundwater currently being lost to evaporation from the underlying aquifer system to immediate beneficial use. We have farmed portions of the Cadiz/Fenner Property since the late 1980s relying on groundwater from the aquifer system for irrigation and the site is well-suited for various permanent and seasonal crops. Presently, the property has 2,100 acres leased for cultivation of a variety of crops, including citrus, dried-on-the-vine raisins and seasonal vegetables.

Our current working capital requirements relate largely to the final development activities associated with the Water Project and those activities consistent with the Water Project related to further development of our land and agricultural assets. While we continue to believe that the ultimate implementation of the Water Project will provide the primary source of our future cash flow, we also believe there is significant additional value in our underlying agricultural assets.

We also continue to explore additional uses of our land and water resource assets, including renewable energy development, the marketing of our approved desert tortoise land conservation bank, which is located on our properties outside the Water Project area, and other long-term legacy uses of our properties, such as habitat conservation and cultural development. 15

Water Resource Development

The Water Project is designed to capture and conserve millions of gallons of renewable native groundwater currently being lost to evaporation from the aquifer system underlying our Cadiz/Fenner Property and provide a new reliable water supply for approximately 400,000 people in Southern California. In this first phase, Phase I, the total quantity of groundwater to be recovered and conveyed to Water Project participants will not exceed a long-term annual average of 50,000 acre-feet per year for 50 years. The Water Project also offers participants in Phase I the ability to carry-over their annual supply and store it in the groundwater basin from year to year. A second phase of the Water Project, Phase II, will offer up to one million acre-feet of storage capacity that can be used to hold imported water supplies at the project area.

Water Project facilities required for Phase I primarily include, among other things:

High-yield wells designed to efficiently recover available native groundwater at the Water Project area;

A water conveyance pipeline to deliver water from the well-field to the CRA for further delivery to Project participants; and

An energy source to provide power to the well-field, pipeline and pumping facilities.

If an imported water storage component of the Project is ultimately implemented in Phase II, the following additional facilities would be required, among other things:

Facilities to pump water through the conveyance pipeline from the CRA to • the Water Project well-field and/or through the Company's pipeline from Cadiz to Barstow, CA; and

Spreading basins, which are shallow settling ponds that will be configured • to efficiently percolate water from the ground surface down to the water table using subsurface storage capacity for the storage of water.

Phase I

Phase I has been fully reviewed and permitted in accordance with the California Environmental Quality Act (CEQA). In May 2016, all permits and approvals were sustained in the California Court of Appeal and are no longer subject to further litigation. As a result, the Project presently is permitted to provide an average of 50,000 acre-feet of water for 50 years to meet municipal and industrial (M&I) water needs in Southern California.

In October 2017, the US Bureau of Land Management ("BLM") provided a letter finding that the Project's proposed use of a portion of the Arizona & California Railroad Company ("ARZC") right-of-way from Cadiz to the

CRA in Freda, California to construct and operate the Water Project's water conveyance pipeline and related railroad improvements is within the scope of the original right-of-way grant and not subject to additional permitting. The buried pipeline would be constructed parallel to the railroad tracks and be used to convey water between our Cadiz Valley property and the CRA.

Construction of Water Project facilities that would allow for the delivery of up to 75,000 acre-feet in any one year is expected to cost approximately \$310 million and will require capital financing that we expect will be secured by definitive Purchase and Sale Agreements with Project participants and the new facility assets. 16

In addition to finalizing construction financing terms, prior to construction, the Water Project must (1) finalize contracts with Project participating agencies, (2) secure transportation arrangements to deliver water into each participant's service area, and (3) complete final design, engineering and construction permitting. Below is a discussion of present activities to advance these objectives.

(1) Contracts with Public Water Agencies or Private Water Utilities

The Company has executed Letters of Intent ("LOIs"), option agreements and purchase agreements, or contracts (collectively, "Agreements") with public water agencies and private water utilities in California during the Project's development. These participating agencies serve more than one million customers in cities throughout California's San Bernardino, Riverside, Los Angeles, Orange, Imperial and Ventura Counties. Twenty percent of Water Project supplies have been reserved for San Bernardino County-based agencies.

Santa Margarita Water District ("SMWD"), Orange County's second largest water provider, was the first participant to convert its option agreement and adopt resolutions approving a Water Purchase and Sale Agreement for 5,000 acre-feet of water. The structure of the SMWD purchase agreement calls for an annually adjusted water supply payment, plus a pro rata portion of the capital recovery charge and operating and maintenance costs. The capital recovery charge is calculated by amortizing the total capital investment by the Company over a 30-year term.

Agreements entered into prior to the beginning of the CEQA review process provide to participants the right to acquire an annual supply of 5,000 acre-feet of water at \$775 per acre-foot (2010 dollars, subject to adjustment), which is competitive with the incremental cost of new water. In addition, these agencies received options to acquire storage rights in the Water Project to allow for the management of their Water Project supplies in complement with their own water resources. Up to 150,000 acre-feet of carry-over storage is available for reservation by the agencies prior to construction commencement. Participants that elect to achieve year-to-year flexibility in their use of Project water by utilizing carry-over storage will reserve storage capacity for \$1,500 per acre-foot prior to construction. LOIs that have been entered into since completion of the CEQA review process reserve supplies from the Water Project at \$960 per acre-foot (2014 dollars, subject to adjustment). These LOIs also include the option to reserve carry-over storage capacity for \$1,500 per acre-foot prior to construction.

Presently, total reservations of supplies from the Water Project via these Agreements are in excess of Water Project capacity. Prior to construction of the Water Project, we expect to convert existing option agreements and LOIs to purchase agreements. We are working collaboratively with the participating water agencies to account for any oversubscription in the final definitive Purchase and Sale Agreements and allow for inclusive participation across Southern California.

(2) Conveyance Arrangements

Prior to construction of the Water Project, and in coordination with final participation contracts described in (1) above, an agreement and terms for moving water supplies in the CRA must be negotiated with Metropolitan Water District of Southern California ("Metropolitan"), which owns and controls the CRA.

Water supplies conserved by the Project would enter the CRA at the termination of the project's conveyance pipeline near Rice, CA. The CEQA process considered a variety of options to enter the CRA and assumed final entry into the CRA would be determined by MWD in consultation with the Project's participating agencies. Once arrangements are reached, the Metropolitan Board would take action as a responsible agency under CEQA regarding the terms and conditions of the Water Project's use of the CRA to transport water to its participating agencies.

There is no application yet before Metropolitan related to entry and transportation of Project supplies, but we expect such a formal application will be filed by SMWD, the Project's lead agency, as the Project's contractual arrangements with participants are finalized. Any agreement as to the terms and conditions of the Water Project's use of the CRA will be negotiated between and entered into by Metropolitan and the Project participating agencies, not the Company. Discussions with Metropolitan regarding conveyance of Project water in the CRA have been led by SMWD, the Water Project's CEQA lead agency, and are ongoing.

Water Project supplies entering the CRA will comply with Metropolitan's published engineering, design and water quality standards and will be subject to all applicable fees and charges routinely established by Metropolitan for the conveyance of water within its service territory. Total dissolved solids or salts in the Cadiz water supply are substantially lower than the water in the CRA. Other constituents that are already lower than State and Federal standards but potentially higher than the water in the CRA will be lowered via treatment to ambient levels or removed entirely. We believe there are multiple benefits that can be secured by MWD upon making space reasonably available for Water Project supplies and providing the region the flexibility of relying on the Water Project in both wet and dry years.

(3) Final Design and Permitting

As a component of completing contract terms with participating agencies and related wheeling arrangements with Metropolitan, we must also finalize design of Project facilities and acquire relevant construction permits with state and local agencies. Together with SMWD we have engaged engineering and environmental consultants to complete design plans for the 43-mile pipeline, Project wellfield, any necessary water treatment facilities, and facilities required to connect to the Metropolitan system at and near the CRA. This work is ongoing and expected to proceed in coordination with the negotiation of contracts and wheeling arrangements. Once facility design and layout near completion, we will need to obtain additional permits and approvals from state or local entities prior to construction. This may include but is not limited to confirmation of existing access rights, easements and rights-of-way, for areas that may be crossed by Project facilities in the Project area subject to final pipeline configuration. 18

Phase II

In a second phase of the Water Project, we expect to make available up to one million acre-feet of capacity in the aquifer system for storage of surplus water conveyed to the Project area. Under the Imported Water Storage Component, or Phase II, water from the Colorado River or the State Water Project could be conveyed to spreading basins that would be constructed on our private property to percolate into the aquifer system and held in storage. When needed, previously stored water would be returned to Phase II participating agencies via the Project's 43-mile conveyance pipeline to the CRA, described above, or via some or all of an existing 220-mile pipeline that extends from our Cadiz/Fenner property northwest to Barstow and from there onwards to Wheeler Ridge, California (see "Northern Pipeline" below).

Phase II has already been the subject of programmatic environmental review in accordance with CEQA, but still requires project-level environmental review and permitting once participating agencies are identified. Phase II may also require federal permits subject to the National Environmental Policy Act, or NEPA.

Northern Pipeline

We currently own a 96-mile existing idle natural gas 30-inch pipeline that extends from the Cadiz/Fenner Property to Barstow, California and intend to convert this pipeline to allow for the transportation of water. The Barstow area serves as a hub for water delivered from northern and central California to communities in Southern California's High Desert. In addition, we hold an option to purchase a further 124-mile segment of this pipeline from Barstow to Wheeler Ridge, California, for \$20 million. This option expires in December 2018. We do not currently have the cash resources on hand to exercise this option and have engaged an investment banker to pursue alternatives that will provide the resources that would allow us to exercise it. If we are unable to exercise this option, then our Northern Pipeline opportunities will be limited to the 96-mile segment we currently own.

Initial feasibility studies have indicated that, upon conversion, the 30-inch pipeline could transport between 18,000 and 30,000 acre-feet of water per year between the Water Project area and various points along the Central and Northern California water transportation network. As a result, this pipeline could create significant opportunities for our water resource development efforts.

If this pipeline were to become operational, then the Water Project would link two major water delivery systems in California, providing flexible opportunities for both supply and storage. The Northern Pipeline could deliver Phase I supplies, either directly or via exchange, to existing and potential customers of Phase I of the Project. Any use of the pipeline would be conducted in conformity with the Water Project's groundwater management plan and is subject to further CEQA evaluation and potentially federal environmental permitting. The Northern Pipeline also represents new opportunities for the Company independent of the Water Project to offer water transportation to locations along the pipeline route that are not presently interconnected by existing water infrastructure. The entire 220-mile pipeline crosses California's major water infrastructure as well as urban and agricultural centers and can be utilized to transport water, independent of the Water Project, between users who presently lack direct interconnections along the pipeline route. We are presently engaged in discussions with parties that may be interested in such transportation.

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Agricultural Development

Our Cadiz/Fenner Property, consisting of approximately 35,000 acres of desert land, is zoned for agricultural development. In 1993, we secured conditional use permits to develop agriculture on up to 9,600 acres of the property and withdraw groundwater from the underlying aquifer system for irrigation. We have since maintained various levels of crops on the Property as we developed the Water Project. In 2013, we entered into a lease agreement with a third party to develop up to 1,480 acres of lemons at the site, 640 acres of which have been planted to date.

In February 2016, we entered into a lease agreement with Fenner Valley Farms LLC ("FVF"), a subsidiary of Water Asset Management LLC, a related party, pursuant to which FVF leased, for a 99-year term, 2,100 acres at the Cadiz/Fenner property to be used to plant, grow and harvest agricultural crops ("FVF Lease"). As consideration for the lease, FVF paid the Company a one-time payment of \$12,000,000 in February 2016. The acreage that was historically farmed by the Company and the acreage that is leased to a third party to develop lemons was included within the leased acreage. Following entry into this lease, we are no longer directly involved in the current agricultural operations at the site and all agricultural revenue is derived pursuant to the FVF Lease.

As part of the agricultural development to be conducted under the lease arrangements, the groundwater production capacity of the property's existing well-field is expected to be enhanced through infrastructure improvements that are complementary to the Water Project. While any additional well-field development for agricultural use would be financed by our agricultural partners as provided under our agricultural lease arrangements, we retained a call feature that allows us, at any time in the initial 20 years, to acquire the well-field and integrate any new agricultural well-field infrastructure developed into the Water Project's facilities.

Additional Eastern Mojave Properties

We also own approximately 11,000 acres outside of the Cadiz/Fenner Valley area in two locations within the Mojave Desert in eastern San Bernardino County.

Our primary landholding outside of the Cadiz area is approximately 9,000 acres in the Piute Valley. This landholding is located approximately 15 miles from the resort community of Laughlin, Nevada, and about 12 miles from the Colorado River town of Needles, California. Extensive hydrological studies, including the drilling and testing of a full-scale production well, have demonstrated that this landholding is underlain by high-quality groundwater. The aquifer system underlying this property is naturally recharged by precipitation (both rain and snow) within a water supply project, agricultural development or solar energy production. These properties are located in or adjacent to areas designated by the federal government as National Monument, Critical Desert Tortoise Habitat and/or

Desert Wilderness Areas and are suitable candidates for preservation and conservation (see "Land Conservation Bank" below). 20

Additionally, we own acreage located near Danby Dry Lake in Ward Valley, approximately 30 miles southeast of our Cadiz/Fenner Valley properties. The Danby Dry Lake property is located approximately 10 miles north of the CRA. Initial hydrological studies indicate that the area has excellent potential for a water supply project. Certain of the properties in this area may also be suitable for agricultural development and/or preservation and conservation.

Land Conservation Bank

Approximately 7,500 acres of our properties outside of the Cadiz/Fenner Valley area in the Piute Valley are located within terrain designated by the federal government as Critical Desert Tortoise Habitat and/or Desert Wilderness Areas and have limited development opportunities. In February 2015, the California Department of Fish and Wildlife approved our establishment of the Fenner Valley Desert Tortoise Conservation Bank ("Fenner Bank"), a land conservation bank that makes available these properties for mitigation of impacts to tortoise and other sensitive species that would be caused by development across the Southern California desert. Under its enabling documents, the Fenner Bank offers credits that can be acquired by entities that must mitigate or offset impacts linked to planned development. For example, this bank can service the mitigation requirements of renewable energy, military, residential and commercial development projects being considered throughout the desert. Credits sold by the Fenner Bank will fund our permanent preservation of the land as well as research by outside entities, including San Diego Zoo Global, into desert tortoise health and species protection.

Other Opportunities

Other opportunities in the water and agricultural or related infrastructure business complementary to our current objectives could provide new opportunities for our Company.

Over the longer-term, we believe the population of Southern California, Nevada and Arizona will continue to grow, and that, in time, the economics of commercial and residential development at our properties may become attractive.

We remain committed to the sustainable use of our land and water assets and will continue to explore all opportunities for environmentally responsible development of these assets. We cannot estimate which of these opportunities will ultimately be utilized.

Results of Operations

Three Months Ended June 30, 2018, Compared to Three Months Ended June 30, 2017

We have not received significant revenues from our water resource and real estate development activity to date. Our revenues have been limited to

rental income from the FVF Lease (see "Agricultural Development", above). As a result, we have historically incurred a net loss from operations. We had revenues of \$109 thousand for the three months ended June 30, 2018, compared to \$108 thousand for the three months ended June 30, 2017. We incurred a net loss of \$6.0 million in the three months ended June 30, 2018, compared to a \$13.6 million net loss during the three months ended June 30, 2017. The higher net loss during the three months ended June 30, 2017 was primarily due to a \$3.5 million loss on extinguishment of debt and a recorded liability of \$3.9 million related to other closing costs associated with the Senior Secured Debt financing (see "Liquidity and Capital Resources", below).

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Our primary expenses are our ongoing overhead costs associated with the development of the Water Project (i.e., general and administrative expense) and our interest expense. We will continue to incur non-cash expenses in connection with our management and director equity incentive compensation plans.

<u>Revenues</u> Revenue totaled \$109 thousand for the three months ended June 30, 2018, compared to \$108 thousand for the three months ended June 30, 2017. Revenues are primarily related to rental income from the FVF Lease (see "Agricultural Development", above).

<u>General and Administrative Expenses</u> General and Administrative Expenses, exclusive of stock-based compensation costs, totaled \$2.2 million in the three months ended June 30, 2018, compared with \$2.0 million in the three months ended June 30, 2017.

Compensation costs for stock and option awards for the three months ended June 30, 2018, were \$122 thousand, compared to \$105 thousand for the three months ended June 30, 2017.

<u>Depreciation</u> Depreciation expense totaled \$64 thousand during the three months ended June 30, 2018, compared to \$72 thousand during the three months ended June 30, 2017.

<u>Interest Expense, net</u> Net interest expense totaled \$3.8 million during the three months ended June 30, 2018 compared to \$8.0 million during the same period in 2017. The following table summarizes the components of net interest expense for the two periods (in thousands):

	Three Months	
	Ended	
	June 30,	
	2018	2017
Interest on outstanding debt	\$3,116	\$2,840
Unrealized (gain)/loss on warrants, net	(343)	3,983
Amortization of debt discount	1,028	1,091
Amortization of deferred loan costs	21	49
	\$3,822	\$7,963

<u>Interest Income</u> Interest income totaled \$48 thousand for the three months ended June 30, 2018, compared to zero for the three months ended June 30, 2017.

<u>Income Taxes</u> Income tax expense was \$3 thousand for the three months ended June 30, 2018, compared to \$1 thousand for the three months ended June 30, 2017. See Note 4 to the Condensed Consolidated Financial Statements – "Income Taxes". 22

Six Months Ended June 30, 2018, Compared to Six Months Ended June 30, 2017

We had revenues of \$217 thousand for the six months ended June 30, 2018, compared with \$216 thousand in revenues during the six months ended June 30, 2017. We incurred a net loss of \$12.0 million in the six months ended June 30, 2018, compared with a \$20.8 million net loss during the six months ended June 30, 2017. The higher year to date net loss in 2017 was primarily due to a \$3.5 million loss on extinguishment of debt and a recorded liability of \$3.9 million related to other closing costs associated with the Senior Secured Debt financing (see "Liquidity and Capital Resources", below). The higher 2017 loss was also related to approximately \$1.7 million in stock compensation related to the vesting of milestone shares earned by employees.

<u>Revenues</u> We had revenues of \$217 thousand during the six months ended June 30, 2018, and \$216 thousand during the six months ended June 30, 2017. Revenues are primarily related to rental income from the FVF Lease (see "Agricultural Development", above).

<u>General and Administrative Expenses</u> General and administrative expenses, exclusive of stock-based compensation costs, totaled \$4.6 million in the six months ended June 30, 2018, compared with \$4.4 million for the six months ended June 30, 2017.

Compensation costs from stock and option awards for the six months ended June 30, 2018, totaled \$0.2 million compared with \$1.9 million for the six months ended June 30, 2017. The higher 2017 expense primarily reflects the vesting of milestone shares earned by employees.

<u>Depreciation</u> Depreciation expense totaled \$130 thousand for the six months ended June 30, 2018, and \$143 thousand for the six months ended June 30, 2017.

Interest Expense, net Net interest expense totaled \$7.3 million during the six months ended June 30, 2018, compared to \$11.1 million during the same period in 2017. The following table summarizes the components of net interest expense for the two periods (in thousands):

	Six Mon June 30, 2018	ths Ended 2017
Interest on outstanding debt Unrealized (gain)/loss on warrants, net Amortization of debt discount Amortization of deferred loan costs		
	\$7,338	\$11,076

<u>Interest Income</u> Interest income totaled \$80 thousand for the six months ended June 30, 2018, compared to zero for the six months ended June 30, 2017.

<u>Income Taxes</u> Income tax expense was \$4 thousand for the six months ended June 30, 2018, compared to \$2 thousand for the six months ended June 30, 2017. See Note 4 to the Consolidated Financial Statements – "Income Taxes".

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Liquidity and Capital Resources

Current Financing Arrangements

As we have not received significant revenues from our development activities to date, we have been required to obtain financing to bridge the gap between the time water resource and other development expenses are incurred and the time that revenue will commence. Historically, we have addressed these needs primarily through secured debt financing arrangements, private equity placements and the exercise of outstanding stock options and warrants. We have also worked with our secured lenders to structure our debt in a way which allows us to continue development of the Water Project and minimize the dilution of the ownership interests of common stockholders.

In March 2018, we entered into an At Market Issuance Sales Agreement with B. Riley FBR, Inc., under which the Company could issue and sell shares of its common stock having an aggregate offering price of up to \$15 million from time to time in an "at the market" offering (the "ATM Offering") through B. Riley FBR acting as its sales agent. We completed the offering during May 2018 having issued 1,159,718 shares of common stock in the ATM Offering for gross proceeds of \$15 million and aggregate net proceeds of approximately \$14.6 million.

In May 2017, we entered into a new \$60 million credit agreement with funds affiliated with Apollo Global Management, LLC ("Apollo") that replaced and refinanced our then existing \$45 million senior secured mortgage debt and provided \$15 million of new senior debt to fund immediate construction related expenditures ("Senior Secured Debt").

The Senior Secured Debt and the convertible notes contain representations, warranties and covenants that are typical for agreements of this type, including restrictions that would limit our ability to incur additional indebtedness, incur liens, pay dividends or make restricted payments, dispose of assets, make investments and merge or consolidate with another person. However, while there are affirmative covenants, there are no financial maintenance covenants and no restrictions on our ability to issue additional common stock to fund future working capital needs. The debt covenants associated with the Senior Secured Debt were negotiated by the parties with a view towards our operating and financial condition as it existed at the time the agreements were executed. At June 30, 2018, we were in compliance with our debt covenants.

Limitations on our liquidity and ability to raise capital may adversely affect us. Sufficient liquidity is critical to meet our resource development activities. We currently expect our cash on hand to be sufficient to meet our working capital needs for a period beyond one year from this quarterly report issuance date. To the extent additional capital is required, we may increase liquidity through a variety of means, including equity or debt placements, through the lease, sale or other disposition of assets or reductions in operating costs. Equity placements would be undertaken only

to the extent necessary, so as to minimize the dilutive effect of any such placements upon our existing stockholders.

As we continue to actively pursue our business strategy, additional financing may continue to be required. See "Outlook" below. The covenants in the term debt do not prohibit our use of additional equity financing and allow us to retain 100% of the proceeds of any equity financing. We do not expect the loan covenants to materially limit our ability to finance our water development activities. 24

At June 30, 2018, we had no outstanding credit facilities other than the Senior Secured Debt and the convertible notes.

<u>Cash Used in Operating Activities</u>. Cash used in operating activities totaled \$6.4 million and \$4.9 million for the six months ended June 30, 2018 and 2017, respectively. The cash was primarily used to fund general and administrative expenses related to our water development efforts for the six-month periods ended June 30, 2018 and 2017.

<u>Cash Used in Investing Activities</u>. Cash used in investing activities totaled \$927 thousand for the six months ended June 30, 2018, and \$161 thousand for the six months ended June 30, 2017. The costs primarily consisted of engineering and design related to the development of the Water Project.

<u>Cash Provided by Financing Activities</u>. Cash provided by financing activities for the six months ended June 30, 2018 was \$14.6 million compared to \$12.3 million for the six months ended June 30, 2017. The 2018 amount includes \$14.6 million of net proceeds from the issuance of stock in an ATM Offering. The 2017 amount includes \$12.3 million of net proceeds from the issuance of long term debt.

<u>Outlook</u>

Short-Term Outlook. Our cash resources of \$20.2 million as of June 30, 2018 provide us sufficient funds to meet our short term working capital needs. As we require additional working capital to fund operations, we expect to continue our historical practice of structuring our financing arrangements to match the anticipated needs of our development activities. No assurances can be given, however, as to the availability or terms of any new financing. See "Long-Term Outlook", below. Further, our option to acquire an additional 124-mile extension of our Northern Pipeline will require a \$20 million payment by December 2018. We do not currently have the cash resources on hand to exercise this option and have engaged an investment banker to pursue alternatives that will provide the resources to allow us to exercise this option. If we are unable to exercise this option, then our Northern Pipeline opportunities will be limited to the 96-mile segment we currently own.

Long-Term Outlook. In the longer term, we may need to raise additional capital to finance working capital needs, capital expenditures and any payments due under our Senior Secured Debt or our convertible notes at maturity (see "Current Financing Arrangements", above). Our future working capital needs will depend upon the specific measures we pursue in the entitlement and development of our water resources and other developments. Future capital expenditures will depend primarily on the progress of the Water Project.

We are evaluating the amount of cash needed, and the manner in which such cash will be raised, on an ongoing basis. We may meet any future cash requirements through a variety of means, including equity or debt placements, or through the sale or other disposition of assets. Equity

placements would be undertaken only to the extent necessary, so as to minimize the dilutive effect of any such placements upon our existing stockholders. Limitations on our liquidity and ability to raise capital may adversely affect us. Sufficient liquidity is critical to meet our resource development activities.

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Recent Accounting Pronouncements

See Note 1 to the Condensed Consolidated Financial Statements – "Basis of Presentation".

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

As of June 30, 2018, all of the Company's indebtedness bore interest at fixed rates; therefore, the Company is not exposed to market risk from changes in interest rates on long-term debt obligations.

ITEM 4. Controls and Procedures

Disclosure Controls and Procedures

The Company established disclosure controls and procedures to ensure that material information related to the Company, including its consolidated entities, is accumulated and communicated to senior management, including the Chief Executive Officer (the "Principal Executive Officer") and Chief Financial Officer (the "Principal Financial Officer") and to its Board of Directors. Based on their evaluation as of June 30, 2018, the Company's Principal Executive Officer and Principal Financial Officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) are effective to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and such information is accumulated and communicated to management, including the principal executive and principal financial officers as appropriate, to allow timely decisions regarding required disclosures.

Changes in Internal Controls Over Financial Reporting

In connection with the evaluation required by paragraph (d) of Rule 13a-15 under the Exchange Act, there was no change identified in the Company's internal controls over financial reporting that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal controls over financial reporting. 26

PART II - OTHER INFORMATION

ITEM 1. Legal Proceedings

Not applicable.

ITEM 1A. Risk Factors

The Development of Our Properties Is Heavily Regulated, Requires Governmental Approvals and Permits That Could Be Denied, and May Have Competing Governmental Interests and Objectives

In developing our land assets and related water resources, we are subject to local, state, and federal statutes, ordinances, rules and regulations concerning zoning, resource protection, environmental impacts, infrastructure design, subdivision of land, construction and similar matters. Our development activities are subject to the risk of adverse interpretations or changes to U.S. federal, state and local laws, regulations and policies. Further, our development activities require governmental approvals and permits. If such permits were to be denied or granted subject to unfavorable conditions or restrictions, our ability to successfully implement our development programs would be adversely impacted.

Prior to construction of the Water Project, terms for moving water supplies in the Colorado River Aqueduct must be negotiated with Metropolitan Water District of Southern California ("Metropolitan"), which owns and controls the CRA. Water Project supplies entering the CRA will comply with Metropolitan's published engineering, design and water quality standards and will be subject to all applicable fees and charges routinely established by Metropolitan for the conveyance of water within its service territory. The Metropolitan Board must consider and approve the terms and conditions of the Water Project's use of the CRA to transport water to its participating agencies. The Project has not yet filed an application for access to the CRA at Metropolitan, but we expect such a formal application will be filed as the Project's contractual arrangements with participants are finalized.

In July 2017, the California State Senate Committee on Natural Resources and Water passed Assembly Bill 1000 ("AB 1000"), which would add new permitting requirements for the conveyance of water from the Cadiz area within California's conveyance facilities, including the CRA. In September 2017, AB 1000 was held on the suspense file by the California Senate Committee on Appropriations stopping it from further consideration by the Legislature in 2017. If AB 1000 is taken off the suspense file in 2018, it would still be required to be considered by the full California State Senate, as well as the California State Assembly and the California Governor's office prior to becoming law. We cannot be certain whether AB 1000 would ever be adopted and, if so, to what extent AB 1000 would affect the permitting requirements for the Project. 27

In October 2017, the Company received a letter from the California State Lands Commission ("Commission") advising that the Commission recently determined for the first time that the State of California owns "in fee" a 200-foot-wide, 1-mile long strip of land beneath the existing Arizona and California Railroad ("ARZC") right-of-way within which we plan to construct the Water Project's conveyance pipeline. The Commission letter asserts that if the Company intends to cross the parcel, we would require a lease from the Commission subject to additional environmental review. The Company cannot predict with certainty at this time whether or not a lease from the Commission will be required or pursued, as the Company already holds a lease from the ARZC to access its right-of-way over this parcel.

Finally, the statutes, regulations and ordinances governing the approval processes provide third parties the opportunity to challenge proposed plans and approvals. Opposition from third parties will cause delays and increase the costs of our development efforts or preclude such development entirely. While we have worked with representatives of various environmental and third-party interests and agencies to minimize and mitigate the impacts of our planned projects, certain groups may remain opposed to our development plans and pursue legal action. Most recently, the Center for Biological Diversity ("CBD") filed a lawsuit against the U.S. Bureau of Land Management ("BLM") and others challenging BLM's determination that the Company's lease of the ARZC right-of-way from the ARZC may proceed without approval from the BLM. The Company is seeking to intervene as a defendant in this lawsuit in order to protect its interests. CBD has filed previous unsuccessful actions against the Project; however, we cannot predict what impact, if any, this current lawsuit may have on the Project.

ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

ITEM 3. Defaults Upon Senior Securities

Not applicable.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

The date of the Company's 2018 Annual Meeting of Stockholders (the "Annual Meeting") has not yet been definitively determined; however, the Annual Meeting will be held prior to the end of calendar year 2018 in accordance with applicable Nasdaq requirements. Qualified stockholder

proposals (including a proposal made pursuant to the Securities and Exchange Commission's Rule 14a-8 and any notice on Schedule 14N) to be presented at the Annual Meeting must be received not later than August 31, 2018 by the Secretary of the Company at 550 S. Hope Street, Suite 2850, Los Angeles California 90071. These proposals must comply with applicable Delaware law, the rules and regulations promulgated by the Securities and Exchange Commission and the procedures set forth in the Company's Bylaws, as amended. 28

ITEM 6. Exhibits

The following exhibits are filed or incorporated by reference as part of this Quarterly Report on Form 10-Q.

- 10.1 <u>Cooperation Agreement, dated as of May 1, 2018, between</u> <u>Water Asset Management, LLC and Cadiz Inc.⁽¹⁾</u>
- 31.1 <u>Certification of Scott S. Slater, Chief Executive Officer of Cadiz Inc.</u> pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Certification of Timothy J. Shaheen, Chief Financial Officer and

- 31.2 Secretary of Cadiz Inc. pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- Certification of Scott S. Slater, Chief Executive Officer of Cadiz Inc. 32.1 pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Certification of Timothy J. Shaheen, Chief Financial Officer and 32.2 Secretary of Cadiz Inc. pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

⁽¹⁾ Previously filed as an Exhibit to our Current Report on Form 8-K dated May 1, 2018 and filed on May 3, 2018 29

SIGNATURE

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

Cadiz Inc.

By:/s/ Scott S. SlaterAugust 6, 2018Scott S. SlaterDateChief Executive Officer and President
(Principal Executive Officer)DateBy:/s/ Timothy J. Shaheen
Timothy J. Shaheen
Chief Financial Officer and Secretary
(Principal Financial Officer)August 6, 2018
Date

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