

ARTESIAN RESOURCES CORP
Form 424B5
July 14, 2011

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-174244

The information in this prospectus is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus does not constitute an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATE July 14, 2011

Preliminary Prospectus Supplement

(To Prospectus dated May 23, 2011)

Shares

Artesian Resources Corporation

Class A Non-Voting Common Stock

We are offering _____ shares of our Class A Non-Voting Common Stock at a price of \$ _____ per share. Our Class A Non-Voting Common Stock is traded on the NASDAQ Global Select Market under the symbol "ARTNA." On July 14, 2011, the last sale price of our common stock as reported on the NASDAQ Global Select Market was \$19.29 per share.

Investing in our common stock involves risks that are described in the "Risk Factors" section beginning on page 5 of the accompanying prospectus.

| | Per Share | Total |
|----------------------------------|-----------|-------|
| Public offering price | \$ | \$ |
| Underwriting discount | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

The underwriters may also purchase up to an additional _____ shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover over-allotments.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery on or about July , 2011.

Baird

Boenning & Scattergood, Inc.

J. J. B. Hilliard, W.L. Lyons, LLC

The date of this prospectus supplement is July , 2011

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You should rely only on the information contained or incorporated by reference to this prospectus supplement and the accompanying prospectus. Neither we nor the underwriters have authorized any other person to provide information different from that contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information appearing in this prospectus supplement and the accompanying prospectus is accurate as of the dates on their respective covers, regardless of time of delivery of the prospectus and this prospectus supplement or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

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About This Prospectus Supplement

This prospectus supplement and the accompanying prospectus form part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the “SEC,” using a “shelf” registration process. This document contains two parts. The first part consists of this prospectus supplement, which provides you with specific information about this offering. The second part, the accompanying prospectus, provides more general information, some of which may not apply to this offering. Generally, when we refer only to the “prospectus,” we are referring to both parts combined.

In this prospectus supplement, the “Company,” “we,” “us,” and “our” and similar terms refer to Artesian Resources Corporation and its subsidiaries on a consolidated basis. References to our “Class A Non-Voting Common Stock” refer to the Class A Non-Voting Common Stock of Artesian Resources Corporation.

This prospectus supplement includes a discussion of special considerations applicable to this particular offering of securities. This prospectus supplement, and the information incorporated herein by reference, may also add, update or change information in the accompanying prospectus. You should read both this prospectus supplement and the accompanying prospectus together with additional information described under the heading “Where You Can Find More Information.” If there is any inconsistency between the information in this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement.

You should rely only on the information contained in or incorporated by reference to this prospectus supplement and the accompanying prospectus. Neither we nor the underwriters have authorized any other person to provide information different from that contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information appearing in this prospectus supplement, and the accompanying prospectus, is accurate as of the dates on their respective covers, regardless of time of delivery of the prospectus and this prospectus supplement or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

All references in this prospectus supplement to our consolidated financial statements include, unless the context indicates otherwise, the related notes.

Cautionary Statement About Forward Looking Information

Statements in this prospectus supplement, in the accompanying prospectus and documents incorporated by reference in this prospectus supplement which express our “belief,” “anticipation” or “expectation,” as well as other statements which are not historical fact, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995. Statements regarding our goals, priorities, growth and expansion plans and expectation for our water and wastewater subsidiaries and non-regulated subsidiaries, customer base growth opportunities in Delaware and Cecil County, Maryland, our belief regarding our capacity to provide water services for the foreseeable future to our customers, our belief relating to our compliance and the cost to achieve compliance with relevant governmental regulations, our expectation of the timing of decisions by regulatory authorities, our expectation of the timing of the closing for pending acquisitions, the impact of weather on our operations and the execution of our strategic initiatives, our expectation of the timing for construction on new projects, our belief regarding our reliance on outside engineering firms, our expectation relating to the adoption of recent accounting pronouncements, contract operations opportunities, legal proceedings, our properties, deferred tax assets, adequacy of our available sources of financing, the expected recovery of expenses related to our long-term debt, our

expectation to be in compliance with financial covenants in our debt instruments, our ability to refinance our debt as it comes due, the timing and terms of renewals of our lines of credit, plans to increase our wastewater treatment operations, engineering services and other revenue streams less affected by weather, expected future contributions to our postretirement benefit plan, and our liquidity needs are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve risks and uncertainties that could cause actual results to differ materially from those projected. Words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “projects”, “forecasts”, “may”, “should”, variations of such words and similar expressions are intended to identify such forward-looking statements. Certain factors, such as changes in weather, changes in our contractual obligations, changes in government policies, the timing and results of our rate requests, changes in economic and market conditions generally, and other factors discussed under “Risk Factors” of this prospectus, as well as other factors set forth from time to time in our filings with the SEC, could cause results to differ materially from those in the forward-looking statements.

Forward-looking statements reflect our management’s expectations or predictions of future conditions, events or results based on various assumptions and management’s estimates of trends and economic factors in the markets in which we are active, as well as our business plans. They are not guarantees of future performance. By their nature, forward-looking statements are subject to risks and uncertainties. Our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.

These forward-looking statements are representative only as of the date they are made, and we undertake no obligation to update any forward-looking statement as a result of new information, future events or otherwise.

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Summary

The information below is only a summary of more detailed information included elsewhere in or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all the information that is important to you or that you should consider before making a decision to invest in our Class A Non-Voting Common Stock. Please read this entire prospectus supplement and the accompanying prospectus, including the risk factors, as well as the information incorporated by reference in this prospectus supplement and the accompanying prospectus, carefully. Unless the context otherwise indicates, the terms “Company,” “we,” “us,” and “our” and similar terms refer to Artesian Resources Corporation and its subsidiaries on a consolidated basis. References to our “Class A Non-Voting Common Stock” refer to the Class A Non-Voting Common Stock of Artesian Resources Corporation.

Our Company

Artesian Resources Corporation operates as the holding company of eight wholly-owned subsidiaries offering water, wastewater and other services on the Delmarva Peninsula. Five of our subsidiaries are regulated public utility companies. Our principal subsidiary, Artesian Water Company, Inc., or Artesian Water, is the oldest and largest investor-owned public water utility on the Delmarva Peninsula, and has been providing water service since 1905. Through Artesian Water and two of our other regulated public utility subsidiaries, Artesian Water Maryland Inc., or Artesian Water Maryland, and Artesian Water Pennsylvania Inc., or Artesian Water Pennsylvania, we distribute and sell water, including water for public and private fire protection, to residential, commercial, industrial, municipal and utility customers in the states of Delaware, Maryland and Pennsylvania. Through our two other public utility subsidiaries, Artesian Wastewater Management, Inc., or Artesian Wastewater, and Artesian Wastewater Maryland, Inc., or Artesian Wastewater Maryland, we provide wastewater services to customers in Delaware and have entered into purchase agreements in order to provide wastewater services in the State of Maryland. In addition, through our non-regulated subsidiaries, Artesian Utility Development, Inc., or Artesian Utility, and Artesian Consulting Engineers, Inc., or Artesian Consulting Engineers, we provide contract water and wastewater operations, wastewater management services, and design, construction and engineering services. Artesian Development Corporation, or Artesian Development, is a real estate holding company that owns properties.

Artesian Water, Artesian Water Maryland and Artesian Water Pennsylvania provide water service to residential, commercial, industrial, governmental, municipal and utility customers. As of March 31, 2011, we served approximately 78,100 metered water customers in Delaware, an increase of approximately 900 compared to March 31, 2010. The number of metered water customers in Maryland increased by approximately 300 compared to 2010, and the number of metered water customers in Pennsylvania remained consistent with 2010.

Artesian Wastewater owns wastewater infrastructure and began providing wastewater services in Delaware in July 2005. Artesian Wastewater Maryland was incorporated on June 3, 2008 to provide regulated wastewater services in Maryland. Our wastewater customers are billed a flat monthly fee, which contributes to providing a revenue stream unaffected by weather.

Artesian Utility was formed in 1996. It designs and builds water and wastewater infrastructure and provides contract water and wastewater services on the Delmarva Peninsula. Artesian Utility also evaluates land parcels, provides recommendations to developers on the size of water or wastewater facilities and the type of technology that should be used for treatment at such facilities, and operates water and wastewater facilities in Delaware and Maryland for municipal and governmental organizations.

Artesian Development is a real estate holding company that owns an approximately six-acre parcel of land zoned for office buildings located immediately adjacent to our corporate headquarters, two nine-acre parcels of land located in Sussex County, Delaware and an office and warehouse facility in Sussex County.

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Artesian Consulting Engineers was formed in June 2008 to provide engineering services to developers for residential and commercial development as well as design services for on-site water and wastewater systems and off-site wastewater collection systems. As a result of the decline in new housing and development due to the economic downturn, the need for development and architectural services has remained depressed. Therefore, in April 2011, management decided to reduce staffing levels and reorganize the business. Artesian Consulting Engineers will no longer provide development and architectural services to outside third parties. Artesian Consulting Engineers will continue to work with existing clients on projects already in progress for engineering services until those projects are complete. Artesian will continue to provide design and engineering contract services through our Artesian Utility subsidiary.

In addition to services discussed above, in the years 2005 and 2008, Artesian Resources initiated a Water Service Line Protection Plan, or WSLP Plan, and a Sewer Service Line Protection Plan, or SSLP Plan, respectively. The WSLP Plan covers all parts, material and labor required to repair or replace participating customers' leaking water service lines up to an annual limit. As of March 31, 2011, approximately 15,900, or 23%, of our eligible water customers have signed up for the WSLP Plan. The SSLP Plan covers all parts, material and labor required to repair or replace participating customers' leaking or clogged sewer lines up to an annual limit. As of March 31, 2011, approximately 8,400, or 12.2%, of our eligible customers had signed up for the SSLP Plan.

Our Strategy

Our strategy is to significantly increase customer growth, revenues, earnings and dividends by expanding our water, wastewater and Service Line Protection Plan services across the Delmarva Peninsula. We remain focused on providing superior service to our customers and continuously seeking ways to improve our efficiency and performance. By providing water and wastewater services, we believe we are positioned as the primary resource for developers and communities throughout the Delmarva Peninsula seeking to fill both needs simultaneously.

We have recently acquired high growth, reputable entities which has allowed us to expand our service territories which will serve as a base for future revenue. In these recent acquisitions, we believe we have successfully integrated their operations, infrastructure, technology and employees. We believe this experience presents a strong platform for further expansion and that our success to date also produces positive relationships and credibility with regulators, municipalities, developers and customers in both existing and prospective service areas.

nExpand our regulated water services. In our regulated water division, we intend to focus on identifying new and dependable sources of supply, developing the wells, treatment plants and delivery systems to supply water to customers and educating customers on the wise use of water. We intend to focus our expansion in:

- new regions added to our Delaware service territory over the last ten years, and we believe our customer base in Delaware will continue to grow as Delaware offers a combination of generally lower living costs, availability of development sites, availability of attractive financing rates for construction and mortgage and lower property and income tax rates; and
- Maryland counties on the Delmarva Peninsula, where we plan to expand our regulated water service area in the Cecil County designated growth corridor, and to expand our business through the design, construction, operation, management and acquisition of additional water systems.

nExpand our regulated wastewater services. In our regulated wastewater division, we foresee significant growth opportunities and will continue to seek strategic partnerships and relationships with developers and municipalities to complement existing agreements for the provision of wastewater service on the Delmarva Peninsula.

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n Increase capital investment in our water and wastewater systems. We intend to increase capital investment in our water and wastewater systems to meet the demand of a combination of population growth, more protective water quality standards and aging infrastructure. Our capital investment plan for the next five years includes projects for water and wastewater treatment plant improvements and additions in both Delaware and Maryland, and are planned and budgeted to meet anticipated changes in regulations and needs for increased capacity related to projected growth.

n Expand operations of our non-regulated businesses. In our non-regulated division, we are actively pursuing opportunities to expand our contract operations. With respect to Artesian Utility, we will seek to expand our contract design and construction services of water and wastewater facilities for developers, municipalities and other utilities and will continue to actively pursue water and wastewater operation contracts with municipalities across the Delmarva Peninsula.

Corporate Information

We are a Delaware corporation with our principal executive offices located at 664 Churchmans Road, Newark, Delaware, 19702. Our telephone number is (302) 453-6900 and our website address is www.artesianwater.com. The information on our website is not part of this prospectus supplement or the accompanying prospectus. General information about us can be found at this website. We make available free of charge through the Investor Relations section of our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. You may also obtain a free copy of these reports and amendments by contacting Investor Relations at Artesian Resources Corporation, 664 Churchmans Road, Newark, Delaware 19702. We include our website address in this prospectus supplement and the accompanying prospectus only as an inactive textural reference and do not intend it to be an active link to our website.

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Summary Financial Data

In the table below, we provide you with certain summary financial information. We have derived the statement of operations data from each of the years in the three-year period ended December 31, 2010 and the balance sheet data as of December 31, 2010 and 2009 from our audited consolidated financial statements incorporated by reference in this prospectus supplement. We have derived the statement of operations data for the three months ended March 31, 2011 and 2010 and the balance sheet data as of March 31, 2011 and March 31, 2010 from our unaudited consolidated financial statements incorporated by reference in this prospectus supplement. You should read this summary information with the discussion in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes to those financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2010 and our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2011, filed with the SEC and incorporated by reference in this prospectus supplement and the accompanying prospectus.

| (In thousands, except per share amounts) | Three Months Ended | | Year Ended December 31, | | |
|--|----------------------------------|----------|-------------------------|----------|----------|
| | March 31, 2011 (Unaudited) | 2010 | 2010 | 2009 | 2008 |
| Statement of Operations Data | | | | | |
| Water sales | \$12,916 | \$12,895 | \$56,685 | \$53,871 | \$50,101 |
| Total operating revenues | 14,757 | 14,983 | 64,885 | 60,912 | 56,185 |
| Total operating expenses | 12,538 | 12,196 | 50,617 | 47,267 | 44,279 |
| Operating income | 2,219 | 2,787 | 14,268 | 13,645 | 11,906 |
| Interest charges | 1,842 | 1,795 | 7,295 | 7,218 | 6,613 |
| Net income applicable to common stock | 1,009 | 1,646 | 7,620 | 7,262 | 6,418 |
| Net income per share of common stock | | | | | |
| Basic | \$0.13 | \$0.22 | \$1.01 | \$0.97 | \$0.87 |
| Diluted | 0.13 | 0.22 | 1.00 | 0.97 | 0.86 |
| Average common shares outstanding | | | | | |
| Basic | 7,651 | 7,513 | 7,557 | 7,454 | 7,353 |
| Diluted | 7,699 | 7,583 | 7,618 | 7,512 | 7,427 |
| Cash dividends per share of common stock | \$0.19 | \$0.19 | \$0.75 | \$0.72 | \$0.71 |

| (In thousands, except per share amounts) | As of March 31, | | As of December 31, | |
|--|-----------------|---------------------|--------------------|------|
| | 2011 | 2010 (Unaudited) | 2010 | 2009 |

Balance Sheet Data

| | | | | |
|---|-----------|-----------|-----------|-----------|
| Utility plant, at original cost less accumulated depreciation | \$346,251 | \$327,617 | \$345,383 | \$326,899 |
| Total assets | 370,299 | 358,182 | 371,529 | 358,895 |
| Lines of credit | 25,306 | 23,708 | 29,071 | 25,123 |
| Long-term debt, including current portions | 108,572 | 107,275 | 106,606 | 107,555 |
| Stockholders’ equity | 95,204 | 91,593 | 95,146 | 91,174 |

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The Offering

The summary below describes some of the terms of the offering. For a more complete description of our Class A Non-Voting Common Stock, see “Description of Capital Stock” in the accompanying prospectus.

Issuer: Artesian Resources Corporation

Shares of Class A Non-Voting Common Stock offered by Issuer: shares.

Shares of Class A Non-Voting Common Stock outstanding after the offering: shares.

Over-allotment option: shares.

Use of Proceeds: We currently intend to use the entire net proceeds to fund a paid-in capital contribution in the same amount to Artesian Water. Artesian Water intends to use the paid-in capital contribution to repay short-term borrowings (including borrowings incurred under our line of credit with Citizens Bank that is available to all of our subsidiaries) incurred primarily to finance expenses associated with its construction program and to fund capital expenditures and other general corporate purposes. These proceeds are expected to reduce Artesian Water’s debt to total capitalization ratio, which we believe will improve Artesian Water’s ability to issue additional long-term debt to finance future capital investments. In addition, Artesian may utilize proceeds from this shelf issuance to adjust capitalization ratios in its other regulated subsidiaries. See “Use of Proceeds.”

Annualized Dividend Rate: \$0.7608 per share. See “Price Range of Common Stock and Dividend Policy.”

NASDAQ Global Select Market symbol: “ARTNA”

Risk Factors: Investing in our Class A Non-Voting Common Stock involves substantial risks. You should carefully consider all the information in this prospectus supplement prior to investing in our Class A Non-Voting Common Stock. See “Risk Factors” beginning on page 5 of the accompanying prospectus and the documents incorporated by reference therein for a

discussion of factors you should consider carefully before deciding whether to invest in the shares of common stock being offered by this prospectus supplement.

The shares of common stock in the table above to be outstanding after the offering are based on 6,794,219 shares outstanding as of July 13, 2011 and exclude an aggregate of 459,500 shares issuable upon the exercise of outstanding options under our stock option plans as of July 13, 2011, at a weighted average exercise price of \$17.50 per share, of which 425,750 shares were fully vested and exercisable. If the underwriters' over-allotment option is exercised in full, we will issue and sell an additional _____ shares of our Class A Non-Voting Common Stock and will have _____ shares outstanding after the offering.

Except as otherwise noted, all information in this prospectus supplement assumes no exercise of the underwriters' over-allotment option.

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Use of Proceeds

We estimate that our net proceeds from the sale of our Class A Non-Voting Common Stock in this offering will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses. If the underwriters exercise their option to purchase additional shares to cover over-allotments, we estimate that our net proceeds from the sale of our Class A Non-Voting Common Stock in this offering will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses.

We will retain broad discretion in the application of the net proceeds of this offering. We currently intend to use the entire net proceeds to fund a paid-in capital contribution in the same amount to Artesian Water. Artesian Water intends to use the paid-in capital contribution to repay short-term borrowings (including borrowings incurred under our line of credit with Citizens Bank that is available to all of our subsidiaries) incurred primarily to finance expenses associated with its construction program, including investment in utility plant and equipment, and to fund capital expenditures and other general corporate purposes. These proceeds are expected to reduce Artesian Water's debt to total capitalization ratio, which we believe will improve Artesian Water's ability to issue additional long-term debt to finance future capital investments. In addition, Artesian may utilize proceeds from this shelf issuance to adjust capitalization ratios in its other regulated subsidiaries.

At March 31, 2011, Artesian Resources had a \$40 million line of credit with Citizens Bank, or Citizens, which is available to all subsidiaries of Artesian Resources. As of March 31, 2011, there was \$17.7 million of available funds under this line of credit. The interest rate for borrowings under this line is based on the London Interbank Offered Rate, or LIBOR. This is a demand line of credit and therefore the financial institution may demand payment for any outstanding amounts at any time. The term of this line of credit expires on the earlier of January 18, 2012 or any date on which Citizens demands payment.

At March 31, 2011, Artesian Water had a \$20 million line of credit with CoBank, ACB, or CoBank, that allows for the financing of operations for Artesian Water, with up to \$10 million of this line available for the operations of Artesian Water Maryland. As of March 31, 2011, there was \$17.0 million of available funds under this line of credit. The interest rate for borrowings under this line is LIBOR plus 1.50%. The term of this line of credit expires on January 17, 2012.

The amounts and timing of the expenditures may vary significantly depending on numerous factors, such as identification of appropriate acquisition opportunities. Accordingly, we will have broad discretion to use the proceeds as we see fit. Pending such uses, we intend to invest the net proceeds in interest-bearing, investment grade securities.

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Capitalization

The following table sets forth our capitalization as of March 31, 2011, on an actual basis and on an as adjusted basis giving effect to the sale of _____ shares of Class A Non-Voting Common Stock by us pursuant to this offering, based on the public offering price of \$ _____ per share, and the application of the net proceeds therefrom as described in “Use of Proceeds.” You should read this table in connection with the information set forth under “Selected Financial Data” and “Use of Proceeds,” included elsewhere in this prospectus supplement and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes to those statements, incorporated by reference into this prospectus supplement and the accompanying prospectus.

March 31, 2011
(Unaudited, in thousands)

| | | Actual | As Adjusted |
|--|----|---------|----------------|
| Long-term debt, net of current portion | \$ | 106,920 | \$ |
| Common stock | | 7,665 | |
| Additional paid-in capital | | 70,455 | |
| Retained earnings | | 17,084 | |
| Total common stockholders’ equity | | 95,204 | |
| Total capitalization | \$ | 202,124 | \$ |

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Price Range of Common Stock and Dividend Policy

Our Class A Non-Voting Common Stock is listed on the NASDAQ Global Select Market and trades under the symbol "ARTNA." On July 13, 2011, there were 786 holders of record of the Class A Non-Voting Common Stock. The following table sets forth, for the periods indicated, the high and low closing sale prices for the Class A Non-Voting Common Stock on the NASDAQ Global Select Market and the cash dividends declared per share. The last reported sales price of our Class A Non-Voting Common Stock on the NASDAQ Global Select Market on July 14, 2011 was \$19.29 per share.

| | High | Low | Dividend Per Share |
|---------------------------------------|---------|---------|-----------------------|
| 2011 | | | |
| First Quarter | \$19.91 | \$18.73 | \$0.1892 |
| Second Quarter | 19.74 | 17.86 | 0.1902 |
| Third Quarter (through July 14, 2011) | 19.49 | 18.17 | |
| 2010 | | | |
| First Quarter | \$18.62 | \$17.05 | \$0.1873 |
| Second Quarter | 19.33 | 16.61 | 0.1882 |
| Third Quarter | 19.07 | 17.31 | 0.1882 |
| Fourth Quarter | 19.50 | 18.53 | 0.1892 |
| 2009 | | | |
| First Quarter | \$16.19 | \$12.95 | \$0.1784 |
| Second Quarter | 16.44 | 13.90 | 0.1784 |
| Third Quarter | 17.83 | 16.06 | 0.1784 |
| Fourth Quarter | 18.61 | 15.65 | 0.1873 |

Our Class B Common Stock, which has voting power, is quoted on the OTC Bulletin Board under the symbol "ARTNB." There has been a limited and sporadic public trading market for the Class B Common Stock. As of July 14, 2011, the last reported trade of the Class B Common Stock on the OTC Bulletin Board was at a price of \$18.10 per share on May 5, 2011. As of July 13, 2011, we had 172 holders of record of the Class B Common Stock. The Class B shares are paid the same dividend as the Class A Non-Voting Common Stock noted in the table above.

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Underwriting

Under an underwriting agreement, dated July , 2011, we have agreed to sell to the underwriters named below the indicated number of our common shares.

| | Number of Shares |
|-------------------------------------|---------------------|
| Underwriters | |
| Robert W. Baird & Co. Incorporated | |
| Boenning & Scattergood, Inc. | |
| J. J. B. Hilliard, W. L. Lyons, LLC | |
| Total | |

The underwriting agreement provides that the underwriters are obligated, severally and not jointly, to purchase all the shares of our Class A Non-Voting Common Stock in the offering if any are purchased, other than those shares covered by the over-allotment option we describe below.

Over-Allotment Option

We have granted to the underwriters a 30-day option to purchase on a pro-rata basis up to additional shares from us at the public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of our Class A Non-Voting Common Stock.

Offering Price

The underwriters propose to offer the shares of our Class A Non-Voting Common Stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a selling concession not to exceed \$ per share.

Discounts and Commissions

The underwriters and selling group members may allow a discount not to exceed \$ per share on sales to other broker/dealers. After the offering, the representatives may change the public offering price and concession and discount to broker/dealers. As used in this section:

- n Each of the underwriters is a securities broker/dealer that is a party to the underwriting agreement and will have a contractual commitment to purchase shares of our Class A Non-Voting Common Stock from us.
- n Selling group members are securities broker/dealers to whom the underwriters may sell shares of our Class A Non-Voting Common Stock at the public offering price less the selling concession above, but who do not have a contractual commitment to purchase shares from us.
- n Broker/dealers are firms registered under applicable securities laws to sell securities to the public.

n The syndicate consists of the underwriters and the selling group members.

The following table summarizes the compensation to be paid to the underwriters:

| | Per Share | Total Without Over- Allotment | With Over- Allotment |
|--|-----------|--|-------------------------|
| Underwriting discounts and commissions payable by us | \$ | \$ | \$ |

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The underwriting fee will be an amount equal to the offering price per share to the public of the Class A Non-Voting Common Stock, less the amount paid by the underwriters to us per share of Class A Non-Voting Common Stock. The underwriters' compensation was determined through arms' length negotiations between us and the underwriters.

We estimate the expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$. Expenses include the SEC filing fees, FINRA filing fees, NASDAQ Global Select Market listing fees, printing, legal, accounting and transfer agent and registrar fees, and other miscellaneous fees and expenses.

NASDAQ Global Select Market Listing

Our Class A Non-Voting Common Stock is listed on the NASDAQ Global Select Market under the symbol "ARTNA." We cannot assure you that prices at which our shares trade in the public market after this offering will not be lower than the public offering price.

Lock-Up Agreements

We have agreed not to issue, we and our directors, executive officers and a stockholder have agreed not to offer, sell, transfer, pledge, contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, and we have agreed not to file with the SEC a registration statement relating to, any shares of our Class A Non-Voting Common Stock or securities convertible into or exchangeable or exercisable for any of shares of our Class A Non-Voting Common Stock, or publicly announcing an intention to effect any of the foregoing transactions, without the prior written consent of Robert W. Baird & Co. Incorporated for a period of 90 days after the date of this prospectus, except that these restrictions will not apply to our ability to (i) sell the shares offered in this offering, (ii) grant employee or director equity incentive awards under the terms of our equity incentive plans and our defined contribution 401(k) Salary Reduction Plan in effect on the date of this prospectus, (iii) issue our Class A Non-Voting Common Stock upon any exercise of options, restricted stock or other stock-based awards, or (iv) issue of shares of Class A Non-Voting Common Stock under our dividend reinvestment plan. The restrictions will also not apply to transfers by our directors, executive officers and certain stockholder by gift, will or intestacy, or distribution to their limited partners or equity partners, so long as the transferee agrees to be bound by substantially the same lock-up agreement. The restrictions will also not apply to transactions relating to sales of our Class A Non-Voting Common Stock or other securities acquired in the open market after this offering.

Indemnity

We have agreed to indemnify the underwriters, their affiliates and person who control the underwriters against liabilities under the Securities Act or to contribute to payments that an underwriter may be required to make in that respect.

Stabilization

The underwriters may engage in over-allotment transactions, stabilizing transactions and syndicate covering transactions in accordance with Regulation M under the Exchange Act.

nOver-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position.

nStabilizing transactions permit bids to purchase shares of our Class A Non-Voting Common Stock so long as the stabilizing bids do not exceed a specified maximum.

nSyndicate covering transactions involve purchases of our Class A Non-Voting Common Stock in the open market after the distribution has been completed to cover syndicate short positions.

These stabilizing transactions and syndicate covering transactions may cause the price of our Class A Non-Voting Common Stock to be higher than the price that might otherwise exist in the open market. These transactions may be effected on the NASDAQ Global Select Market or otherwise and, if commenced, may be discontinued at any time.

The underwriters and their affiliates may provide in the future, advisory and investment banking services to us, for which they would receive customary compensation.

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Legal Matters

The validity of the shares of Class A Non-Voting Common Stock offered hereby and certain other legal matters will be passed upon for us by Morgan, Lewis & Bockius LLP, Philadelphia, Pennsylvania. Michael Best & Friedrich LLP, Milwaukee, Wisconsin, will pass upon certain legal matters relating to this offering for the underwriters.

Experts

The consolidated financial statements of Artesian Resources Corporation as of December 31, 2010 and December 31, 2009 and for each of the three years in the period ended December 31, 2010 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2010 incorporated by reference in this prospectus supplement have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

Where You Can Find More Information

We are currently subject to the information requirements of the Exchange Act and in accordance therewith file periodic reports, proxy statements and other information with the SEC. We also filed a registration statement on Form S-3, including exhibits, under the Securities Act, with respect to the securities offered by this prospectus supplement. This prospectus supplement and the accompanying prospectus are a part of the registration statement, but do not contain all of the information included in the registration statement or the exhibits. You may read and copy the registration statement and any other document that we file at the SEC's public reference room at 100 F Street, N.E., Washington D.C. 20549. You can call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. You can also find our public filings with the SEC on the internet at a website maintained by the SEC located at www.sec.gov.

Incorporation of Certain Information by Reference

The SEC allows us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus, which means that we can disclose important information about us by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus supplement and the accompanying prospectus, and the information we filed with the SEC after the date of this prospectus supplement will automatically update, modify and, where applicable, supersede any information included in this prospectus supplement and the accompanying prospectus, or incorporated by reference in this prospectus supplement and the accompanying prospectus. Artesian Resources Corporation incorporates by reference into this prospectus the following documents filed with the SEC and any future filings that it makes with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, between the date of this prospectus and the termination of the offering (other than, in each case, documents or information deemed to be furnished and not filed in accordance with SEC rules):

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nOur Annual Report on Form 10-K for the year ended December 31, 2010, as filed with the SEC on March 15, 2011;

nOur Quarterly Report on Form 10-Q for the period ended March 31, 2011, as filed with the SEC on May 9, 2011;

nOur Current Reports on Form 8-K filed with the SEC on January 21, 2011, April 15, 2011, May 18, 2011 June 22, 2011; and

nThe description of our Class A Non-Voting Common Stock contained in our Registration Statement on Form 10, as amended (File No. 000-18516), filed with the Commission on April 30, 1990 to register our Class A Non-Voting Common Stock under the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

Information in this prospectus supplement supersedes related information in the documents listed above, and information in subsequently filed documents supersedes related information in both the prospectus and the incorporated documents.

We will promptly provide, without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference in the prospectus, other than exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents. Requests should be directed to:

Corporate Secretary
Artesian Resources Corporation
Attention: Investor Relations
664 Churchmans Road
Newark, DE 19702
(302) 453-6900

You can also find these filings on our website at www.artesianwater.com. We are not incorporating the information on our website other than these filings into this prospectus.

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Filed pursuant to Rule 424(b)(2)

File No. 333-174244

PROSPECTUS

\$30,000,000

Artesian Resources Corporation

Class A Non-Voting Common Stock

Artesian Resources Corporation may offer to sell up to \$30,000,000 maximum aggregate offering price of Class A Non-Voting Common Stock from time to time. We may offer and sell shares of our Class A Non-Voting Common Stock in amounts and on terms that we may determine at the time of the offering.

Each time we offer shares of our Class A Non-Voting Common Stock, we will provide a prospectus supplement and attach it to this prospectus. The prospectus supplement will contain more specific information about the terms of the offering. A prospectus supplement also may modify or supersede information contained in this prospectus. This prospectus may not be used to consummate sales of these securities unless accompanied by a prospectus supplement.

We may offer and sell shares of our Class A Non-Voting Common Stock through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis.

We will receive all proceeds from the sale of shares of Class A Non-Voting Common Stock hereunder.

Our Class A Non-Voting Common Stock is listed for trading on the NASDAQ Global Select Market under the symbol "ARTNA." On May 23, 2011, the last reported sale for price for our Class A Non-Voting Common Stock was \$19.16 per share.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 5 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 23, 2011

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Statements in this prospectus and documents incorporated by reference in this prospectus which express our “belief,” “anticipation” or “expectation,” as well as other statements which are not historical fact, are forward-looking statements within the meaning of Section 27A of the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act and the Private Securities Litigation Reform Act of 1995. Statements regarding our goals, priorities, growth and expansion plans and expectation for our water and wastewater subsidiaries and non-regulated subsidiaries, customer base growth opportunities in Delaware and Cecil County, Maryland, our belief regarding our capacity to provide water services for the foreseeable future to our customers, our belief relating to our compliance and the cost to achieve compliance with relevant governmental regulations, our expectation of the timing of decisions by regulatory authorities, our expectation of the timing of the closing for pending acquisitions, the impact of weather on our operations and the execution of our strategic initiatives, our expectation of the timing for construction on new projects, our belief regarding our reliance on outside engineering firms, our expectation relating to the adoption of recent accounting pronouncements, contract operations opportunities, legal proceedings, our properties, deferred tax assets, adequacy of our available sources of financing, the expected recovery of expenses related to our long-term debt, our expectation to be in compliance with financial covenants in our debt instruments, our ability to refinance our debt as it comes due, the timing and terms of renewals of our lines of credit, plans to increase our wastewater treatment operations, engineering services and other revenue streams less affected by weather, expected future contributions to our postretirement benefit plan, and our liquidity needs are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve risks and uncertainties that could cause actual results to differ materially from those projected. Words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “projects”, “forecasts”, “may”, “should”, variations of such similar expressions are intended to identify such forward-looking statements. Certain factors, such as changes in weather, changes in our contractual obligations, changes in government policies, the timing and results of our rate requests, changes in economic and market conditions generally, and other factors discussed under “Risk Factors” of this prospectus, as well as other factors set forth from time to time in our filings with the Securities and Exchange Commission, or the SEC, could cause results to differ materially from those in the forward-looking statements.

Forward-looking statements reflect our management’s expectations or predictions of future conditions, events or results based on various assumptions and management’s estimates of trends and economic factors in the markets in which we are active, as well as our business plans. They are not guarantees of future performance. By their nature, forward-looking statements are subject to risks and uncertainties. Our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.

These forward-looking statements are representative only as of the date they are made, and we undertake no obligation to update any forward-looking statement as a result of new information, future events or otherwise.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a “shelf” registration or continuous offering process. We may from time to time sell Class A Non-Voting Common Stock in one or more offerings up to a total dollar amount of \$30,000,000.

Each time we sell these securities, we will provide you with a prospectus supplement containing specific information about the terms of each such sale. This prospectus may not be used to sell any of the securities unless accompanied by a prospectus supplement. The prospectus supplement also may add, update or change information in this prospectus. If there is any inconsistency between the information in the prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement. You should read both this prospectus and any prospectus supplement together with additional information described under the heading “Where You Can Find More Information” beginning on page 19 of this prospectus.

The information contained in or incorporated by reference into this prospectus summarizes certain information about Artesian Resources Corporation. It may not contain all of the information that is important to you. To understand this offering fully, you should read carefully the entire prospectus, including “Risk Factors,” and the other information incorporated by reference into this prospectus. Unless otherwise indicated or unless the context otherwise requires, all references in this prospectus to “we,” “us” “our” and the “Company” or similar references as used herein refer to Artesian Resources and its subsidiaries, including Artesian Water Company, Inc., or Artesian Water, Artesian Water Pennsylvania, Inc., or Artesian Water Pennsylvania, Artesian Water Maryland, Inc., or Artesian Water Maryland, Artesian Wastewater Management, Inc., or Artesian Wastewater, Artesian Wastewater Maryland, Inc., or Artesian Wastewater Maryland, each a regulated public utility, and three non-regulated subsidiaries; Artesian Utility Development, Inc., or Artesian Utility, Artesian Development Corporation, or Artesian Development, and Artesian Consulting Engineers, Inc., or Artesian Consulting Engineers.

You should rely only on the information contained in this prospectus or incorporated by reference with respect to the offering made by this prospectus. We have not authorized anyone else to provide you with different or additional information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus. We may offer to sell, and seek offers to buy these securities only in jurisdictions where offers and sales are permitted. The information contained in or incorporated by reference in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of securities.

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ARTESIAN RESOURCES CORPORATION

Artesian Resources Corporation operates as the holding company of eight wholly-owned subsidiaries offering water, wastewater and other services on the Delmarva Peninsula. Five of our subsidiaries are regulated public utility companies. Our principal subsidiary, Artesian Water Company, Inc., or Artesian Water, is the oldest and largest investor-owned public water utility on the Delmarva Peninsula, and has been providing superior water service since 1905. Through Artesian Water and two of our other regulated public utility subsidiaries, Artesian Water Maryland Inc., or Artesian Water Maryland, and Artesian Water Pennsylvania Inc., or Artesian Water Pennsylvania, we distribute and sell water, including water for public and private fire protection, to residential, commercial, industrial, municipal and utility customers in the states of Delaware, Maryland and Pennsylvania. Through our two other public utility subsidiaries, Artesian Wastewater Management, Inc., or Artesian Wastewater, and Artesian Wastewater Maryland, Inc., or Artesian Wastewater Maryland, we provide wastewater services to customers in Delaware and have entered into purchase agreements in order to provide wastewater services in the State of Maryland. In addition, through our non-regulated subsidiaries, Artesian Utility Development, Inc., or Artesian Utility, and Artesian Consulting Engineers, Inc., or Artesian Consulting Engineers, we provide contract water and wastewater operations, wastewater management services, and design, construction and engineering services. Artesian Development Corporation, or Artesian Development, is a real estate holding company that owns properties.

Artesian Water, Artesian Water Maryland and Artesian Water Pennsylvania provide water service to residential, commercial, industrial, governmental, municipal and utility customers. As of March 31, 2011, we served approximately 78,100 metered water customers in Delaware, an increase of approximately 900 compared to March 31, 2010. The number of metered water customers in Maryland increased by approximately 300 compared to 2010, and the number of metered water customers in Pennsylvania remained consistent with 2010.

Artesian Wastewater owns wastewater infrastructure and began providing wastewater services in Delaware in July 2005. Artesian Wastewater Maryland was incorporated on June 3, 2008 to provide regulated wastewater services in Maryland. Our wastewater customers are billed a flat monthly fee, which contributes to providing a revenue stream unaffected by weather.

Artesian Utility was formed in 1996. It designs and builds water and wastewater infrastructure and provides contract water and wastewater services on the Delmarva Peninsula. Artesian Utility also evaluates land parcels, provides recommendations to developers on the size of water or wastewater facilities and the type of technology that should be used for treatment at such facilities, and operates water and wastewater facilities in Delaware and Maryland for municipal and governmental organizations.

Artesian Development is a real estate holding company that owns an approximately six-acre parcel of land zoned for office buildings located immediately adjacent to our corporate headquarters, two nine-acre parcels of land located in Sussex County, Delaware and an office and warehouse facility in Sussex County.

Artesian Consulting Engineers was formed in June 2008 to provide engineering services to developers for residential and commercial development as well as design services for on-site water and wastewater systems and off-site wastewater collection systems. As a result of the decline in new housing and development due to the economic downturn, the need for development and architectural services has remained depressed. Therefore, in April 2011, management decided to reduce staffing levels and reorganize the business. Artesian Consulting Engineers will no longer provide development and architectural services to outside third parties. Artesian Consulting Engineers will continue to work with existing clients on projects already in progress for engineering services until those projects are complete. Artesian will continue to provide design and engineering contract services through our Artesian Utility subsidiary.

In addition to services discussed above, in the years 2005 and 2008, Artesian Resources initiated a Water Service Line Protection Plan, or WSLP Plan, and a Sewer Service Line Protection Plan, or SSLP Plan, respectively. The WSLP Plan covers all parts, material and labor required to repair or replace participating customers' leaking water service lines up to an annual limit. As of March 31, 2011, approximately 15,900, or 23%, of our eligible water customers have signed up for the WSLP Plan. The SSLP Plan covers all parts, material and labor required to repair or replace participating customers' leaking or clogged sewer lines up to an annual limit. As of March 31, 2011, approximately 8,400, or 12.2%, of our eligible customers had signed up for the SSLP Plan.

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CORPORATE INFORMATION

We are a Delaware corporation with our principal executive offices located at 664 Churchmans Road, Newark, Delaware, 19702. Our telephone number is (302) 453-6900 and our website address is www.artesianwater.com. The information on our website is not part of this prospectus. General information about us can be found at this website. We make available free of charge through the Investor Relations section of our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. You may also obtain a free copy of these reports and amendments by contacting Investor Relations at Artesian Resources Corporation, 664 Churchmans Road, Newark, Delaware 19702. We include our website address in this prospectus only as an inactive textural reference and do not intend it to be an active link to our website.

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RISK FACTORS

Investing in our Class A Non-Voting Common Stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below and in other documents we have filed with the SEC which are incorporated in the prospectus by reference before purchasing our securities. If any of the following risks actually occur, our business, financial condition or results of operations would likely suffer. In that case, the trading price of our Class A Non-Voting Common Stock could fall, and you may lose all or part of the money you paid to buy our securities.

Risks Related to our Business

Our operating revenue is primarily from water sales. The rates that we charge our customers are subject to the regulations of the Public Service Commissions in the states in which we operate. Additionally, our business requires significant capital expenditures on an annual basis and these expenditures are made for additions and replacement of property. If a Public Service Commission disapproves or is unable to timely approve our requests for rate increase or approves rate increases that are inadequate to cover our investments or increased costs, our profitability may suffer.

We file rate increase requests, from time to time, to recover our investments in utility plant and expenses. Once a rate increase petition is filed with a Public Service Commission, the ensuing administrative and hearing process may be lengthy and costly. We can provide no assurances that any future rate increase request will be approved by the Delaware Public Service Commission, or DEPSC, Maryland Public Service Commission, or MDPSC or Pennsylvania Public Utility Commission, or PAPUC, and if approved, we cannot guarantee that these rate increases will be granted in a timely manner and/or will be sufficient in amount to cover the investments and expenses for which we initially sought the rate increase.

Our business is subject to seasonal fluctuations, which could affect demand for our water service and our revenues.

Demand for water during warmer months is generally greater than during cooler months primarily due to additional customer requirements in irrigation systems, swimming pools, cooling systems and other outside water use. In the event that temperatures during typically warmer months are cooler than normal, or when rainfall is more than normal, the demand for our water may decrease and adversely affect our revenues.

Drought conditions and government imposed water use restrictions may impact our ability to serve our current and future customers, and may impact our customers' use of our water, which may adversely affect our financial condition and results of operations.

We believe that we have in place sufficient capacity to provide water service for the foreseeable future to all existing and new customers in all of our service territories. However, severe drought conditions could interfere with our sources of water supply and could adversely affect our ability to supply water in sufficient quantities to our existing and future customers. This may adversely affect our revenues and earnings. Moreover, governmental restrictions on water usage during drought conditions may result in a decreased demand for water, which may adversely affect our revenue and earnings.

Our operating costs could be significantly increased if new or stricter regulatory standards are imposed by federal and state environmental agencies.

Our water and wastewater services are governed by various federal and state environmental protection and health and safety laws and regulations, including the federal Safe Drinking Water Act, the Clean Water Act and similar state

laws. These federal and state regulations are issued by the United States Environmental Protection Agency and state environmental regulatory agencies. Pursuant to these laws, we are required to obtain various water allocation permits and environmental permits for our operations. The water allocation permits control the amount of water that can be drawn from water resources. New or stricter water allocation regulations can adversely affect our ability to meet the demands of our customers. While we have budgeted for future capital and operating expenditures to maintain compliance with these laws and our permits, it is possible that new or stricter standards would be imposed that will raise our operating costs. Thus, we can provide no assurances that our costs of complying with, or discharging liability under current and future environmental and health and safety laws will not adversely affect our business, results of operations or financial condition.

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We are subject to risks associated with the collection, treatment and disposal of wastewater.

Wastewater collection, treatment and disposal involve various unique risks. If collection or treatment systems fail, overflow, or do not operate properly, untreated wastewater or other contaminants could spill onto nearby properties or into nearby streams and rivers, causing damage to persons or property, injury to aquatic life and economic damages, which may not be recoverable in fees. This risk is most acute during periods of substantial rainfall or flooding, which are common causes of sewer overflow and system failure. Liabilities resulting from such damages and injuries could materially and adversely affect the Company's results of operations and financial condition.

Turnover in our management team could have an adverse impact on our business or the financial market's perception of our ability to continue to grow.

Our success depends significantly on the continued contribution of our management team both individually and collectively. The loss of the services of any member of our management team or the inability to hire and retain experienced management personnel could harm our operating results.

We face competition from other water and wastewater utilities for the acquisition of new exclusive service territories.

Water and wastewater utilities competitively pursue the right to exclusively serve territories in Delaware and Maryland by entering into agreements with landowners, developers or municipalities and, under current law, then applying to the DEPSC or the MDPSC for a Certificate of Public Convenience and Necessity, or CPCN, which grants a water or wastewater utility the exclusive right to serve all existing and new customers of a water or wastewater utility within a designated area. Typically, water and wastewater utilities enter into agreements with developers who have approval from county governments with respect to proposed subdivisions or developments. Once a CPCN is granted to a water or wastewater utility, generally it may not be suspended or terminated unless the DEPSC or MDPSC determines in accordance with its rules and regulations that good cause exists for any such suspension or termination. Therefore, we face competition from other water and wastewater utilities as we pursue the right to exclusively serve territories. If we are unable to enter into agreements with landowners, developers or municipalities and secure CPCNs for the right to exclusively serve territories in Delaware or Maryland, our ability to expand may be significantly impeded.

We depend on the availability of capital for expansion, construction and maintenance. Weaknesses in capital and credit markets may limit our access to capital.

Our ability to continue our expansion efforts and fund our utility construction and maintenance program depends on the availability of adequate capital. There is no guarantee that we will be able to obtain sufficient capital in the future on favorable terms and conditions for expansion, construction and maintenance. Recent economic conditions and disruptions have caused substantial volatility in capital markets, including credit markets and the banking industry and have increased the cost and significantly reduced the availability of credit from financing sources, which may continue or worsen in the future. In the event our lines of credit are not extended or we are unable to refinance our first mortgage bonds when due and the borrowings are called for payment, we will have to seek alternative financing sources, although there can be no assurance that these alternative financing sources will be available on terms acceptable to us. In the event we are unable to obtain sufficient capital, our expansion efforts could be curtailed, which may affect our growth and may affect our future results of operations.

General economic conditions may materially and adversely affect our financial condition and results of operations.

The continuing effects of adverse U.S. economic conditions may lead to a number of impacts on our business that may materially and adversely affect our financial condition and results of operations. Such impacts may include a reduction in discretionary and recreational water use by our residential water customers, particularly during the summer months; a decline in usage by industrial and commercial customers as a result of decreased business activity and commerce in our customers' businesses; an increased incidence of customers' inability, bankruptcy or delay in paying their bills which may lead to higher bad debt expense and reduced cash flow; and a lower natural customer growth rate may result as compared to what had been experienced before the economic downturn due to a decline in new housing starts and a possible slight decline in the number of active customers due to housing vacancies or abandonments.

Any future acquisitions we undertake or other actions to further grow our water and wastewater business may involve risks.

An element of our growth strategy is the acquisition and integration of water and wastewater systems in order to broaden our current service areas, and move into new ones. It is our intent, when practical, to integrate any businesses we acquire with our existing operations. The negotiation of potential acquisitions as well as the integration of acquired businesses

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could require us to incur significant costs and cause diversion of our management's time and resources. We may not be successful in the future in identifying businesses that meet our acquisition criteria. The failure to identify such businesses may limit the rate of our growth. In addition, future acquisitions or expansion of our service areas by us could result in:

- ØDilutive issuance of our equity securities;
- ØIncurrence of debt and contingent liabilities;
- ØDifficulties in integrating the operations and personnel of the acquired businesses;
- ØDiversion of our management's attention from ongoing business concerns;
- ØFailure to have effective internal control over financial reporting;
- ØShuffling of human resources; and
- ØOther acquisition-related expense

Some or all of these items could have a material adverse effect on our business and our ability to finance our business and comply with regulatory requirements. The businesses we acquire in the future may not achieve sales and profitability that would justify our investment.

We also may experience risks relating to the challenges and costs of closing a transaction and the risk that an announced transaction may not close. Completion of certain acquisition transactions are conditioned upon, among other things, the receipt of approvals, including from the state's public utilities commission. Failure to complete a pending transaction would prevent us from realizing the anticipated benefits. We would also remain liable for significant transaction costs, including legal and accounting fees, whether or not the transaction is completed.

We are subject to, and could be further subject to, governmental investigations or actions by other third parties.

We are subject to various federal and state laws, including environmental laws, violations of which can involve civil or criminal sanctions. Artesian Water received a federal grand jury subpoena in connection with an investigation being conducted by the United States Attorney's Office in the Eastern District of Pennsylvania and the Environmental Protection Agency. The subpoena requests certain documents from Artesian Water principally relating to eight wastewater facilities in Pennsylvania formerly operated by personnel of Artesian Utility Development, Inc., our wholly owned subsidiary. Artesian Resources was subsequently advised that Artesian Utility's prior operation of the eight wastewater facilities in Pennsylvania is a subject of the grand jury investigation. We are fully cooperating with the investigation. Due to the stage of the investigation, we are unable to predict the outcome of the investigation, or the possible loss or range of loss, if any, which could be associated with the resolution of any possible criminal charges or civil claims that may be brought against us. Should such charges or claims be brought, we could face significant fines, damage awards or regulatory consequences which could have a material adverse effect on our business, financial position and results of operations.

In addition, we are currently subject to pending litigation. On December 22, 2010, Artesian Water filed a complaint in the United States District Court for the Eastern District of Pennsylvania against Chester Water Authority claiming breach of contract, unjust enrichment and requesting declaratory judgment in relation to an agreement by Chester Water to supply bulk water supplies to Artesian Water. On February 11, 2011, Artesian Water received an answer and counterclaim from Chester Water Authority denying Artesian Water's claims and allegations, asserting a counterclaim for breach of contract and seeking monetary damages, related costs and attorneys' fees. Although Artesian Water intends to pursue its claims and defense in the action vigorously, there can be no assurances that it will prevail on any of the claims in the action, or, if it does prevail on one or more claims, of the amount or nature of recovery that may be awarded to it for such claim(s).

Our operations from time to time could be parties to or targets of additional lawsuits, claims, investigations and proceedings, including system failure, injury, contract, environmental, health and safety and employment matters, which are handled and defended in the ordinary course of business. The results of any future litigation or settlement of such lawsuits and claims are inherently unpredictable, but such outcomes could also materially and adversely affect our business, financial position and results of operations.

We are dependent on the continuous and reliable operation of our information technology systems.

We rely on our information technology systems in connection with the operation of our business, specifically with respect to customer service and billing, managing construction projects, managing our financial records, tracking assets, remotely monitoring some of our plants and facilities and managing human resources, inventory and accounts receivable collections. A loss of these systems or major problems with the operation of these systems could affect our operations and have a significant material adverse effect on our results of operations.

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Contamination of our water supply may result in disruption in our services and could lead to litigation that may adversely affect our business, operating results and financial condition.

Our water supplies are subject to contamination from naturally-occurring compounds as well as pollution resulting from man-made sources. Even though we monitor the quality of water on an on-going basis, any possible contamination due to factors beyond our control could interrupt the use of our water supply until we are able to substitute it from an uncontaminated water source. Additionally, treating the contaminated water source could involve significant costs and could adversely affect our business. We could also be held liable for consequences arising out of human or environmental exposure to hazardous substances, if found, in our water supply. This could adversely affect our business, results of operations and financial condition.

Potential terrorist attacks may disrupt our operations and adversely affect our business, operating results and financial condition.

We have taken steps to increase security measures at our facilities and heighten employee awareness of threats to our water supply. We also have tightened our security measures regarding delivery and handling of certain chemicals used in our business. We have and will continue to bear any increase in costs for security precautions to protect our facilities, operations and supplies, most of which have been recoverable under state regulatory policies. While the costs of increases in security, including capital expenditures, may be significant, we expect these costs to continue to be recoverable in water and wastewater rates. Despite our security measures, we may not be in a position to control the outcome of terrorist events, or other attacks on our water systems, should they occur.

Risks Related to Our Common Stock

Our principal stockholders have significant control over the outcome of most fundamental corporate matters.

As of May 12, 2011, members of the Taylor family, which include Dian C. Taylor, our Chair of the Board, Chief Executive Officer and President, Nicholle R. Taylor, Vice President and Director, and John R. Eisenbrey, Jr., Director, beneficially owned 55.0% of the outstanding Class B Common Stock and 2.2% of the outstanding Class A Non-Voting Common Stock and our directors and executive officers as a group beneficially owned 55.2% of the outstanding Class B Common Stock and 3.9% of the outstanding Class A Non-Voting Common Stock. The holders of Class B Common Stock generally have the exclusive right to vote on most fundamental corporate decisions, including the election of our board of directors. As a result, these principal stockholders will have significant control over the outcome of most fundamental corporate matters. If you purchase shares of Class A Non-Voting Common Stock, you will not be able to vote on most fundamental corporate matters, including the election of our board of directors.

Our ability to pay dividends is limited by our Restated Certificate of Incorporation, terms of our preferred stock and covenants in our debt instruments.

Our Restated Certificate of Incorporation requires that we pay or set aside for payment all accrued dividends and sinking fund payments payable on any outstanding preferred stock before we can pay dividends on our common stock. In addition, we have outstanding debt instruments containing covenants restricting our ability to pay dividends on our common stock.

There are a number of other factors that determine both our ability to pay dividends on our common stock and the amount of those dividends. These factors include:

- Ø Dilutive issuance of our equity securities;

- Ø Certain limitations on dividend payments in our bond covenants included in our trust indentures;
- Ø Our earnings, capital requirements and financial condition; and
- Ø Other factors, including the timeliness and adequacy of rate increases granted to Artesian Water.

We cannot guarantee that we will continue to pay dividends on our common stock in the future or in amounts similar to past dividends.

There is a limited trading market for our Class A Non-Voting Common Stock. You may not be able to resell your shares at or above the price you pay for them.

Although our Class A Common Stock, is listed for trading on the NASDAQ Global Select Market, the trading in our Class A Non-Voting Common Stock has substantially less liquidity than many other companies quoted on the NASDAQ Global

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Select Market. A public trading market having the desired characteristics of depth, liquidity and orderliness depends on the presence in the market of willing buyers and sellers of our Class A Non-Voting Common Stock at any given time. This presence depends on the individual decisions of investors and general economic and market conditions over which we have no control. Because of the limited volume of trading in our Class A Non-Voting Common Stock, a sale of a significant number of shares of our Class A Non-Voting Common Stock in the open market could cause our stock price to decline. We cannot provide any assurance that this offering will increase the volume of trading in our Class A Non-Voting Common Stock.

Provisions in our Restated Certificate of Incorporation and bylaws and under Delaware law may prevent or frustrate a change in control or a change in management that stockholders believe is desirable.

Provisions of our Restated Certificate of Incorporation and bylaws may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions include:

- Ø A classified board of directors;
- Ø Higher stockholder voting requirements for certain corporate actions;
- Ø Limitations on the removal of directors; and
- Ø Advance notice requirements for stockholder proposals and nominations;

Subject to certain exceptions, the affirmative vote of the holders of at least 75% of the voting power of all of the then-outstanding shares entitled to vote generally in the election of directors, voting together as a single class, is required to alter, amend or repeal the provision relating to our classified board of directors and limitations on the removal of directors. In addition, absent approval of our board of directors, our bylaws may only be amended or repealed by the affirmative vote of the holders of at least 75% of the voting power of all of the then-outstanding shares entitled to vote generally in the election of directors, voting together as a single class.

In addition, Section 203 of the General Corporation Law of the State of Delaware prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns or within the last three years has owned 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. Accordingly, Section 203 may discourage, delay or prevent a change in control of our company.

Risks Related to an Offering

We have broad discretion in the use of the net proceeds from an offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from an offering and could spend the proceeds in ways that do not necessarily improve our results of operations or enhance the value of our Class A Non-Voting Common Stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our Class A Non-Voting Common Stock to decline and delay the development of our product candidates.

Once this registration statement is declared effective by the SEC, a large number of shares of our Class A Non-Voting Common Stock will become eligible for future sale into the market. This may adversely impact the market price of our Class A Non-Voting Common Stock.

Once this registration statement is declared effective by the SEC, a large number of shares of our Class A Non-Voting Common Stock will become eligible for future issuance and sale. Solely for purpose of estimation, based on \$19.43 per share, the last reported closing sale price of our Class A Non-Voting Common Stock as reported by the NASDAQ Global Select Market, the registration statement covers 1,544,004 shares of Class A Non-Voting Common Stock, or 22.8% of our total outstanding shares of Class A Non-Voting Common Stock based on 6,786,827 total outstanding shares of Class A Non-Voting Common Stock as of May 12, 2011. This availability of a significant number of additional shares of our Class A Non-Voting Common Stock for future sale and issuance or the perception in the market that we intend to sell substantial number of share could depress the price of our Class A Non-Voting Common Stock.

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USE OF PROCEEDS

We will receive all of the net proceeds from the sale of our securities registered under the registration statement of which this prospectus is a part.

Unless the applicable prospectus supplement states otherwise, we will retain broad discretion in the application of the net proceeds of this offering. We currently intend to use the entire net proceeds to fund a paid-in capital contribution in the same amount to Artesian Water. Artesian Water intends to use the paid-in capital contribution to repay short-term borrowings incurred primarily to finance expenses associated with its construction program, including investment in utility plant and equipment, and to fund capital expenditures and other general corporate purposes. These proceeds are expected to reduce Artesian Water's debt to total capitalization ratio, which we believe will improve Artesian Water's ability to issue additional long-term debt to finance future capital investments. In addition, Artesian may utilize proceeds from this shelf issuance to adjust capitalization ratios in its other regulated subsidiaries.

At March 31, 2011, Artesian Resources had a \$40 million line of credit with Citizens Bank, or Citizens, which is available to all subsidiaries of Artesian Resources. As of March 31, 2011, there was \$17.7 million of available funds under this line of credit. The interest rate for borrowings under this line is based on the London Interbank Offered Rate, or LIBOR. This is a demand line of credit and therefore the financial institution may demand payment for any outstanding amounts at any time. The term of this line of credit expires on the earlier of January 18, 2012 or any date on which Citizens demands payment.

At March 31, 2011, Artesian Water had a \$20 million line of credit with CoBank, ACB, or CoBank, that allows for the financing of operations for Artesian Water, with up to \$10 million of this line available for the operations of Artesian Water Maryland. As of March 31, 2011, there was \$17.0 million of available funds under this line of credit. The interest rate for borrowings under this line is LIBOR plus 1.50%. The term of this line of credit expires on January 17, 2012.

We have not determined the amount of net proceeds to be used for each of the purposes indicated. The amounts and timing of the expenditures may vary significantly depending on numerous factors, such as identification of appropriate acquisition opportunities. Accordingly, we will have broad discretion to use the proceeds as we see fit. Pending such uses, we intend to invest the net proceeds in interest-bearing, investment grade securities.

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DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our Restated Certificate of Incorporation and Bylaws are summaries and are qualified by reference to the Restated Certificate of Incorporation and Bylaws that we have filed with the SEC.

Our authorized capital stock consists of 15,000,000 shares of Class A Non-Voting Common Stock, par value \$1.00 per share, 1,040,000 shares of Class B Common Stock, par value \$1.00 per share, 10,868 shares of 7% Prior Preferred Stock, par value \$25.00 per share, 80,000 shares of Cumulative Prior Preferred Stock, par value \$25.00 per share, and 100,000 shares of Series Preferred Stock, par value \$1.00 per share.

As of May 12, 2011, we had issued and outstanding:

Ø 6,786,827 shares of Class A Non-Voting Common stock, held by 791 stockholders of record; and
Ø 881,452 shares of Class B Common Stock, held by 172 stockholders of record.

As of May 12, 2011, there were no shares of 7% Prior Preferred stock, Cumulative Prior Preferred Stock or Series Preferred Stock outstanding. We sometimes refer to our 7% Prior Preferred Stock, Cumulative Prior Preferred Stock and Series Preferred Stock collectively as Preferred Stock in this "Description of Capital Stock."

Class A Non-Voting Common Stock

Voting Rights

Under our Restated Certificate Incorporation, generally, holders of shares of our Class A Non-Voting Common Stock do not have voting rights with respect to the election of directors and other matters voted upon by stockholders.

However, Section 242(b)(2) of the General Corporation Law of the State of Delaware confers voting rights, or statutory voting rights, to holders of the outstanding shares of a class that is not entitled to vote under the certificate of incorporation, with respect to a proposed amendment to the certificate of incorporation, if "the amendment would increase or decrease the aggregate number of authorized shares of such class, increase or decrease the par value of the shares of such class, or alter or change the powers, preferences, or special rights of the shares of such class so as to affect them adversely." The vote required to approve such amendments is a majority of the outstanding shares of the class.

Holders of our Class A Non-Voting Common Stock have statutory voting rights as set forth above. In addition, under Section 4.20 of our Restated Certificate of Incorporation, we may not issue any shares of Series Preferred Stock without the approval of the holders of a majority of the shares of Class A Non-Voting Common Stock.

Dividends

Subject to dividends that we may be required to pay on outstanding shares of Preferred Stock, the holders of Class A Non-Voting Common Stock are entitled to receive dividends, as, when and if declared from time to time by our Board of Directors out of funds legally available for such purpose. Our Restated Certificate of Incorporation requires that we declare and pay the same dividend per share on the Class A Non-Voting Common Stock and on the Class B Common Stock.

Holders of Class A Non-Voting Common Stock may participate in our dividend reinvestment plan by automatically reinvesting cash dividends declared on all or a portion of their shares to purchase additional shares of Class A Non-Voting Common Stock.

Liquidation Rights

In the event of a liquidation, dissolution or winding up of Artesian Resources, the holders of Class A Non-Voting Common Stock are entitled to share pro rata with the holders of Class B Common Stock in all assets and funds remaining after we pay all of our creditors and make required distributions to the holders of outstanding shares of Preferred Stock pursuant to our Restated Certificate of Incorporation.

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Other Rights

There are no preemptive, conversion, subscription, redemption or sinking fund rights applicable to the Class A Non-Voting Common Stock.

All outstanding shares of our Class A Non-Voting Common Stock are fully paid and non-assessable.

Class B Common Stock

Voting Rights

Except as otherwise described in this “Description of Capital Stock” with respect to our other classes of stock, the right to vote for the election of directors and other stockholder matters is exercised exclusively by the holders of Class B Common Stock. Holders of Class B Common Stock are entitled to one vote per share on all matters voted upon by stockholders. Our directors, other than those elected by holders of our Preferred Stock under specified circumstances as described herein, are classified into three classes. Holders of shares of Class B Common Stock do not have cumulative voting rights.

Dividends

Subject to dividends that we may be required to pay on outstanding shares of Preferred Stock before we may pay dividends on other shares, the holders of Class B Common Stock are entitled to receive dividends, as, when and if declared from time to time by our board of directors out of funds legally available for such purpose. Our Restated Certificate of Incorporation requires that we declare and pay the same dividend per share on the Class B Common Stock and on the Class A Non-Voting Common Stock.

Liquidation Rights

In the event of our liquidation, dissolution or winding up of our operations, the holders of Class B Common Stock are entitled to share pro rata with the holders of Class A Non-Voting Common Stock in all assets and funds remaining after we pay all of our creditors and make required distributions to the holders of outstanding shares of Preferred Stock pursuant to our Restated Certificate of Incorporation.

Other Rights

There are no preemptive, conversion, subscription, redemption or sinking fund rights applicable to the Class B Common Stock.

All outstanding shares of Class B Common Stock are fully paid and non-assessable.

Preferred Stock

As of May 12, 2011, there were no shares of Preferred Stock outstanding. In addition, we have no present plans to issue any Preferred Stock.

7% Prior Preferred Stock

Voting Rights

Under our Restated Certificate of Incorporation, holders of 7% Prior Preferred Stock do not have voting rights except for statutory voting rights as described above.

Redemption

The 7% Prior Preferred Stock is redeemable at our option, in whole or in part, from time to time, upon at least 30 days' notice, at \$30 per share plus accrued but unpaid dividends; provided that if we are in default on any dividend or sinking fund payment on any series of Cumulative Prior Preferred Stock, we may not redeem any shares of 7% Prior Preferred Stock or any series of Cumulative Prior Preferred Stock.

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Dividends

The 7% Prior Preferred Stock is entitled to cumulative dividends at a rate of, but not exceeding, 7% per year out of funds legally available for such purpose, payable quarterly. The 7% Prior Preferred Stock and the Cumulative Prior Preferred Stock rank equally with respect to the payment of cash dividends. No dividends may be declared and paid on the Series Preferred Stock, Class A Non-Voting Common Stock or Class B Common Stock unless the full cash dividends on the 7% Prior Preferred Stock then outstanding have been paid or set apart for payment.

Liquidation Rights

In the event of our liquidation, dissolution or winding up or our sale of all of our assets, the holders of 7% Prior Preferred Stock are entitled, after we pay all of our creditors, to be paid in cash the par value of their shares and any accrued but unpaid dividends before we make any payment to the holders of our Series Preferred Stock, Class A Non-Voting Common Stock or Class B Common Stock. The consolidation or merger of the Company with any other corporation or corporations will not be deemed to be a liquidation, dissolution, or winding up of the Company.

The 7% Prior Preferred Stock and the Cumulative Prior Preferred Stock rank equally with respect to payments upon a liquidation, dissolution or winding up, except that a sale of all of our assets will be deemed to be a liquidation, dissolution or winding up with respect to the 7% Prior Preferred Stock, but will not be deemed a liquidation, dissolution or winding up with respect to the Cumulative Prior Preferred Stock.

Cumulative Prior Preferred Stock

Issuance in Series

The Cumulative Prior Preferred Stock may be issued from time to time in one or more series. Subject to certain stockholder approval requirements described below, our board of directors may fix the designations, preferences and other rights, and limitations or restrictions of authorized and unissued Cumulative Prior Preferred Stock in a resolution providing for the initial issuance of each such series.

All shares of the Cumulative Prior Preferred Stock of all series must be of equal rank, and all shares of any particular series of the Cumulative Prior Preferred Stock must be identical except as to the date(s) from which dividends thereon start to cumulate.

Different series of Cumulative Prior Preferred Stock may vary as to:

- Ø The annual dividend rate and the date from which dividends start to cumulate;
- Ø The redemption price(s) and other terms and conditions of redemption;
- Ø The amount(s) payable upon our liquidation, dissolution or winding up;
- Ø The terms and amount of any sinking fund provided for the purchase or redemption of shares of the particular series;
- Ø Terms relating to conversion; and
- Ø The designations, preferences, and relative, participating, optional, or other special rights, and the qualifications, limitations, or restrictions, if any of the particular series.

Voting Rights

Except (i) for the statutory voting rights, (ii) in the case of certain defaults in dividend or sinking fund payments described below, and (iii) as described below for certain of our actions, the holders of Cumulative Prior Preferred Stock generally do not have voting rights under our Restated Certificate of Incorporation.

If we are in default on dividend or sinking fund payments on any series of Cumulative Prior Preferred Stock for certain periods of time specified in our Restated Certificate of Incorporation, the holders of Cumulative Prior Preferred Stock are entitled to vote as a class for not less than one-third (if the default continues for certain shorter periods) or a majority (if the default continues for certain longer periods), as the case may be, of the members of our board of directors. Upon such defaults, holders of Cumulative Prior Preferred Stock may call a special meeting of such holders to elect directors as described in this paragraph to serve until the next annual meeting of stockholders. Upon cure of such defaults, voting rights revert to the Class B Common Stock.

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In addition, the approval of at least 75% of the total number of shares of Cumulative Prior Preferred Stock then outstanding is required for us to:

- Ø incur any long-term indebtedness that would result in total long-term indebtedness exceeding 65% of our capitalization (as defined in our Restated Certificate of Incorporation);
- Ø create or authorize any class of stock or any obligation or security convertible into shares of stock unless such stock ranks junior to the Cumulative Prior Preferred Stock with respect both to the payment of dividends and distributions upon our liquidation, dissolution or winding up of operations;
- Ø amend, alter, change or repeal any of the provisions of our Restated Certificate of Incorporation with respect to our business purposes so as to substantially change such purposes, or amend, alter, change or repeal any of the terms of the Cumulative Prior Preferred Stock then outstanding in a manner prejudicial to the holders of such stock; provided that if only a particular series of Cumulative Prior Preferred Stock is prejudiced by such changes, then only the vote of 75% of the total number of outstanding shares of such series will be required;
- Ø merge or consolidate if, among other things, the purposes of the resulting corporation would be substantially different from ours or if any adverse change in the terms and provisions of the Cumulative Prior Preferred Stock would result;
 - Ø reissue any previously purchased, redeemed or retired shares of Cumulative Prior Preferred Stock; or
- Ø issue any shares of Cumulative Prior Preferred Stock or any stock ranking senior to, or on a parity with, the Cumulative Prior Preferred Stock with respect to dividend rights or liquidation rights, unless certain financial tests specified in our Restated Certificate of Incorporation are met.

In addition, the approval of at least a majority of the total number of shares of Cumulative Prior Preferred Stock then outstanding is required for us to increase the total number of authorized shares of Cumulative Prior Preferred Stock of all series to over 80,000 shares.

Redemption

Our Board of Directors may determine that the whole or any part of any series of the Cumulative Prior Preferred Stock may be redeemed, at any time or from time to time, by paying in cash the redemption price plus accrued but unpaid dividends, and by following the procedures as set forth in Section 4.11 of our Restated Certificate of Incorporation; provided that if we are in default on any dividend or sinking fund payment on any series of Cumulative Prior Preferred Stock, we may not redeem any series of Cumulative Prior Preferred Stock or any shares of 7% Prior Preferred Stock. Subject to the limitations set forth in our Restated Certificate of Incorporation, our board of directors has full power and authority to determine the manner and the terms and conditions of such redemption. If a particular series of the Cumulative Prior Preferred Stock has a sinking fund, the redemption price must not be in excess of the sinking fund redemption price.

Sinking Fund

With respect to all series of Cumulative Prior Preferred Stock for which a sinking fund requirement must be met in each year, we are required to set aside on or before February 1 of such year cash required for sinking fund payments in such year. To the extent that the terms of any series permit the sinking fund requirement for such series to be met by the surrender of stock, the aggregate par value of the shares surrendered for such purpose will be considered as equivalent in amount to cash set aside for such series. The sinking fund requirement for each series of the Cumulative Prior Preferred Stock for which a sinking fund has been established will be cumulative, so that if in any year we do

not satisfy the sinking fund requirement for such year, the amount of the deficiency will be added to the sinking fund requirement for the next succeeding year. Unless and until we cure all such deficiencies, we may not declare dividends or make other payments on our stock that rank junior to Cumulative Prior Preferred Stock, nor may we purchase, redeem or otherwise acquire for value such junior stock.

Dividends

Holders of our Cumulative Prior Preferred Stock are entitled to receive dividends out of legally available funds when and as declared by our board of directors. The Cumulative Prior Preferred Stock and the 7% Prior Preferred Stock rank equally with respect to the payment of cash dividends. No dividends may be declared and paid on the Series Preferred Stock, Class A Non-Voting Common Stock or Class B Common Stock unless the full cash dividends on the 7% Prior Preferred Stock then outstanding have been paid or set apart for payment.

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Power of Board with Respect to Series

We may, at any time or from time to time, within the then total authorized amount of the Cumulative Prior Preferred Stock of all series, increase the authorized amount of any series of the Cumulative Prior Preferred Stock or of any unclassified Cumulative Prior Preferred Stock, classify or reclassify any unissued shares of the Cumulative Prior Preferred Stock as shares of the Cumulative Prior Preferred Stock of any series or as unclassified Cumulative Prior Preferred Stock, create one or more additional series of the Cumulative Prior Preferred Stock, fix the authorized amount of any series and fix the designations and the rights and preferences, and restrictions and qualifications, of any series of the Cumulative Prior Preferred Stock, by the vote of a majority of the total number of shares of each series of the Series Preferred Stock and of a majority in interest of the total number of shares of the Class B Common Stock then outstanding given at a meeting called for that purpose, and no vote or consent of the holders of shares of the Cumulative Prior Preferred Stock, as a class or otherwise, will be required in connection therewith nor will the holders of shares of the Cumulative Prior Preferred Stock be entitled to notice of any such meeting.

In case and to the extent that under the laws of Delaware at the time in effect, our board of directors will be authorized by law to create new series of the Cumulative Prior Preferred Stock or to fix the amounts, designations, rights and preferences, and restrictions and qualifications of the shares of any series of the Cumulative Prior Preferred Stock, or to take any other action with respect to the Cumulative Prior Preferred Stock specified in the preceding paragraph, no action of our stockholders will be required and all action authorized (as described above in the preceding paragraph) to be taken by vote of the holders of the Class B Common Stock may be taken by vote of our board of directors.

Liquidation Rights

In the event of our liquidation, dissolution or winding up of operations or our sale of all of our assets, the holders of the outstanding series of Cumulative Prior Preferred Stock are entitled, after we pay all of our creditors, to be paid in cash the value of their shares fixed for that series and any accrued but unpaid dividends before any amounts are paid to the holders of our Series Preferred Stock, Class A Non-Voting Common Stock or Class B Common Stock. The consolidation or merger of the Company with any other corporation, or the sale or transfer by the Company of all or any part of its assets, will not be deemed to be a liquidation, dissolution, or winding up of the Company.

As described above, the 7% Prior Preferred Stock and the Cumulative Prior Preferred Stock rank equally with respect to payments upon a liquidation, dissolution or winding up, except that a sale of all of our assets will be deemed to be a liquidation, dissolution or winding up with respect to the 7% Prior Preferred Stock, but will not be deemed a liquidation, dissolution or winding up with respect to the Cumulative Prior Preferred Stock.

Series Preferred Stock

With the prior approval of the holders of a majority of the shares of Class A Non-Voting Common Stock, our board of directors may issue Series Preferred Stock from time to time in one or more series. The board of directors has the power to fix, subject to preferences that may be applicable to the 7% Prior Preferred Stock or Cumulative Prior Preferred Stock under our Restated Certificate of Incorporation, the full, limited or no voting powers, and such designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof of any such series of Series Preferred Stock.

The issuance of Series Preferred Stock, while providing us flexibility in connection with acquisitions and other corporate purposes, may be used by us, in certain circumstances, to create voting impediments to extraordinary corporate transactions or to frustrate persons seeking to effect a merger with or otherwise gain control of us. We have no present plans to designate any series or issue any shares of Series Preferred Stock.

Options

As of May 12, 2011, options to purchase 425,750 shares of Class A Non-Voting Common Stock were outstanding at a weighted average exercise price of \$17.38 per share, of which options to purchase 392,000 shares of Class A Non-Voting Common Stock were exercisable. As of that date, an additional 466,500 shares were available for issuance under our 2005 Equity Compensation Plan.

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Provisions with Possible Anti-Takeover Effects

Our Restated Certificate of Incorporation provides that we will be governed by Section 203 of the General Corporation Law of the State of Delaware which prohibits a “business combination” between a corporation and an “interested stockholder” within three years of the stockholder becoming an “interested stockholder.” An “interested stockholder” is one who, directly or indirectly, owns 15% or more of the outstanding voting stock of the corporation. A “business combination” includes:

- Ø A merger;
- Ø Consolidation;
- Ø Sale or lease or other disposition of assets having an aggregate value in excess of 10% of either the aggregate fair market value of the consolidated assets of the corporation or the aggregate market value of all the outstanding stock of the corporation; and
- Ø Certain transactions that would increase the interested stockholder's proportionate share ownership in the corporation or which provide the interested stockholder with a financial benefit.

These restrictions do not apply where:

- Ø Prior to such time the Company’s board of directors approved the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- Ø Upon consummation of the transaction in which the stockholder became an interested stockholder, the stockholder owns at least 85% of the voting stock outstanding at the commencement of such transaction, excluding, for determining the number of shares outstanding, shares owned by persons who are directors as well as officers and by employee stock plans in which participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- Ø The business combination is approved by the board of directors and the affirmative vote of two-thirds of the outstanding voting stock not owned by the interested stockholder at an annual or special meeting.

The business combinations provisions of Section 203 of the General Corporation Law of the State of Delaware may have the effect of deterring merger proposals, tender offers or other attempts to effect changes in control of us that are not negotiated and approved by our board of directors.

We have adopted certain provisions in our Restated Certificate of Incorporation and By-laws which may have anti-takeover implications. Our Restated Certificate of Incorporation provides that without the affirmative vote of at least 75% of the voting power of all of the then outstanding shares entitled to vote generally in the election of directors, voting together as a class, the provisions in our Restated Certificate of Incorporation and the Bylaws establishing a classified board of directors may not be altered, amended or repealed. In addition, absent approval of our board of directors, our bylaws may only be amended or repealed by the affirmative vote of the holders of at least 75% of the voting power of all of the then-outstanding shares entitled to vote generally in the election of directors, voting together as a single class. These supermajority voting provisions, along with various supermajority voting provisions for certain classes of stock required for certain business combinations and other corporate actions described above, may have an effect of discouraging, delaying or preventing a change of control which may be at a premium above the prevailing market price.

Transfer Agent and Registrar

The Transfer Agent and Registrar for the Class A Non-Voting Common Stock is Registrar and Transfer Company, 10 Commerce Drive, Cranford, NJ 07016.

NASDAQ Global Select Market

Our Class A Non-Voting Common Stock is listed on the NASDAQ Global Select Market under the symbol “ARTNA.”

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PLAN OF DISTRIBUTION

We may sell our Class A Non-Voting Common Stock through underwriters or dealers, through agents, or directly to one or more purchasers. The prospectus supplement will describe the terms of the offering of our Class A Non-Voting Common Stock, including:

- Ø The number of shares of Class A Non-Voting Common Stock we are offering;
- Ø The name or names of any underwriters;
- Ø Any securities exchange or market on which the Class A Non-Voting Common Stock may be listed;
- Ø The purchase price of our Class A Non-Voting Common Stock being offered and the proceeds we will receive from the sale;
- Ø Any over-allotment options pursuant to which underwriters may purchase additional shares of Class A Non-Voting Common Stock from us;
- Ø Any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation; and
 - Ø Any discounts or concessions allowed or reallocated or paid to dealers.

If underwriters are used in the sale, they will acquire our Class A Non-Voting Common Stock for their own account and may resell our Class A Non-Voting Common Stock from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of the sale. The obligations of the underwriters to purchase the Class A Non-Voting Common Stock will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the Class A Non-Voting Common Stock to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the shares of Class A Non-Voting Common Stock offered by the prospectus supplement. We may change from time to time the public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

We may sell our Class A Non-Voting Common Stock directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of our Class A Non-Voting Common Stock, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize our agents and underwriters to solicit offers by certain types of institutional investors to purchase Class A Non-Voting Common Stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts, which provide for payment and delivery on a specific date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement. Agents that participate in the distribution of shares of our Class A Non-Voting Common Stock may be deemed underwriters under the Securities Act.

We may sell shares of our Class A Non-Voting Common Stock to dealers as principal. The dealer may then resell shares of Class A Non-Voting Common Stock to the public at varying prices determined by it at the time of resale. The dealer may be deemed to be an underwriter under the Securities Act.

We may provide underwriters, agents and dealers with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the underwriters or agents may make with respect to these liabilities. Underwriters, agents and dealers may engage in transactions with, or perform services for, us in the ordinary course of business. We will describe such relationships in the prospectus supplement naming the underwriter and the nature of any such relationship.

Rules promulgated by the SEC may limit the ability of any underwriters to bid for or purchase shares of Class A Non-Voting Common Stock before the distribution of the shares of Class A Non-Voting Common Stock is completed. However, underwriters may engage in the following activities in accordance with the rules:

- Ø Stabilizing transactions – Underwriters may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.
- Ø Over-allotments and syndicate covering transactions – Underwriters may sell more shares of our Class A Non-Voting Common Stock than the number of shares that they have committed to purchase in any underwritten offering. This over-allotment creates a short position for the underwriters. This short position may involve either “covered” short sales or “naked” short sales. Covered short sales are short

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sales made in an amount not greater than the underwriters' over-allotment option to purchase additional shares in any underwritten offering. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in the offering.

Ø Penalty bids – If underwriters purchase shares in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from other underwriters and selling group members who sold those shares as part of the offering.

Similar to other purchase transactions, an underwriter's purchases to cover the syndicate short sales or to stabilize the market price of our Class A Non-Voting Common Stock may have the effect of raising or maintaining the market price of our Class A Non-Voting Common Stock or preventing or mitigating a decline in the market price of our Class A Non-Voting Common Stock. As a result, the price of the shares of our Class A Non-Voting Common Stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of shares if it discourages resales of the shares.

If commenced, the underwriters may discontinue any of these activities at any time.

Our Class A Non-Voting Common Stock is quoted on the NASDAQ Global Select Market. One or more underwriters may make a market in our Class A Non-Voting Common Stock, but the underwriters will not be obligated to do so and may discontinue market making at any time without notice. We cannot give any assurance as to liquidity of the trading market for our Class A Non-Voting Common Stock.

Any underwriters who are qualified market makers on the NASDAQ Global Select Market may engage in passive market making transactions in the Class A Non-Voting Common Stock on the NASDAQ Global Select Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of our Class A Non-Voting Common Stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

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LEGAL MATTERS

The validity of the shares of Class A Non-Voting Common Stock offered by this prospectus will be passed upon for us by Morgan, Lewis & Bockius LLP, Philadelphia, Pennsylvania.

EXPERTS

The consolidated financial statements of Artesian Resources Corporation as of December 31, 2010 and December 31, 2009 and for each of the three years in the period ended December 31, 2010 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2010 incorporated by reference in this Prospectus have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete and you should refer to the exhibits filed with the registration statement for copies of the actual contract, agreement or other document. We are subject to the information and periodic reporting requirements of the Exchange Act, and, in accordance therewith, we file annual, quarterly and special reports and other information with the SEC. These documents are publicly available, free of charge, on our website at www.artesianwater.com. The information on our website is not part of this prospectus. We include our website address in this prospectus only as an inactive textural reference and do not intend it to be an active link to our website.

You can read the registration statement and our future filings with the SEC, over the Internet at the SEC's website at <http://www.sec.gov>. You may also read and copy any document that we file with the SEC at its public reference room at 100 F Street, NE, Washington, DC 20549.

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" certain information into this prospectus. By incorporating by reference, we can disclose important information to you by referring you to another document we have filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and the information we filed with the SEC after the date of this prospectus will automatically update, modify and, where applicable, supersede any information included in this prospectus or incorporated by reference in this prospectus. Artesian Resources Corporation incorporates by reference into this prospectus the following documents filed with the SEC and any future filings that it makes with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, between the date of this prospectus and the termination of the offering (other than, in each case, documents or information deemed to be furnished and not filed in accordance with SEC rules).

1. Our Annual Report on Form 10-K for the year ended December 31, 2010, as filed with the SEC on March 15, 2011;

2. Our Quarterly Report on Form 10-Q for the period ended March 31, 2011, as filed with the SEC on May 9, 2011;
3. Our Current Reports on Form 8-K filed with the SEC on January 21, 2011, April 15, 2011 and May 18, 2011; and
4. The description of our Class A Non-Voting Common Stock contained in our Registration Statement on Form 10, as amended (File No. 000-18516), filed with the Commission on April 30, 1990 to register our Class A Non-Voting Common Stock under the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

You may request a copy of these documents at no cost to you by writing or telephoning us at the following address:

Artesian Resources Corporation
Attention: Investor Relations
664 Churchmans Road
Newark, DE 19702
(302) 453-6900

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Shares of Class A Non-Voting Common Stock

Prospectus Supplement

July , 2011

Baird

Boenning & Scattergood, Inc.

J. J. B. Hilliard, W.L. Lyons, LLC