

ARTESIAN RESOURCES CORP  
Form 11-K  
June 27, 2011

---

---

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 11-K

(Mark One)

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

For the fiscal year ended December 31, 2010

Or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 000-18516

A. FULL TITLE OF THE PLAN AND THE ADDRESS OF THE PLAN, IF DIFFERENT FROM THAT OF THE ISSUER NAMED BELOW:

ARTESIAN RESOURCES CORPORATION RETIREMENT PLAN

B. NAME OF ISSUER OF THE SECURITIES HELD PURSUANT TO THE PLAN AND THE ADDRESS OF ITS PRINCIPAL EXECUTIVE OFFICE:

ARTESIAN RESOURCES CORPORATION  
664 CHURCHMANS RD.  
NEWARK, DE 19702

---

---

---

Artesian Resources Corporation Retirement Plan

Financial Statements

December 31, 2010

Table of Contents

|                                                                                                       | Page   |
|-------------------------------------------------------------------------------------------------------|--------|
| <u>Report of Independent Registered Public Accounting Firm</u>                                        | 3      |
| Financial Statements                                                                                  |        |
| <u>Statement of Net Assets Available for Benefits - December 31, 2010</u>                             | 5      |
| <u>Statement of Net Assets Available for Benefits - December 31, 2009</u>                             | 6      |
| <u>Statement of Changes in Net Assets Available for Benefits for the Year Ended December 31, 2010</u> | 7      |
| <u>Notes to the Financial Statements</u>                                                              | 8 - 16 |
| <u>Supplementary Information</u>                                                                      |        |
| <u>Schedule H, Line 4i - Schedule of Assets (Held at End of Year)</u>                                 | 17     |

---

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Plan Administrator  
Artesian Resources Corporation Retirement Plan  
Newark, Delaware

We have audited the accompanying statement of net assets available for benefits of the Artesian Resources Corporation Retirement Plan (the "Plan") as of December 31, 2010 and the related statement of changes in net assets available for benefits for the year ended December 31, 2010. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2010, and the changes in net assets available for benefits for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was performed for the purpose of forming opinions on the basic financial statements taken as a whole. The accompanying supplemental Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2010 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ BDO USA, LLP

Bethesda, Maryland  
June 27, 2011

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Trustees  
Artesian Retirement Plan

We have audited the accompanying statement of net assets available for benefits of the Artesian Retirement Plan (the Plan) as of December 31, 2009, and the related statement of changes in net assets available for benefits for the year then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2009, and the changes in net assets available for benefits for the year then ended, in conformity with U.S. generally accepted accounting principles.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. Supplemental Schedule H, Part IV, Line 4i: Schedule of Assets Held for Investment as of December 31, 2009 is presented for the purpose of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the United States Department of Labor Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Santora CPA Group

Santora CPA Group  
June 28, 2010

Artesian Resources Corporation Retirement Plan

Statement of Net Assets Available for Benefits

December 31, 2010

|                                                          | 2010                |
|----------------------------------------------------------|---------------------|
| <b>ASSETS</b>                                            |                     |
| Cash                                                     | \$252               |
| Investments, at fair value                               |                     |
| Artesian Resources Corp. Class A non-voting common stock | 3,322,338           |
| Total investments, at fair value                         | 3,322,338           |
| Due from broker, net                                     | 23,994,000          |
| Participants' notes receivable                           | 221,266             |
| Contributions receivable                                 |                     |
| Employer                                                 | 164,261             |
| Participants                                             | 42,636              |
| Total contributions receivable                           | 206,897             |
| Total assets                                             | 27,744,753          |
| <b>LIABILITIES</b>                                       | <b>--</b>           |
| <b>NET ASSETS AVAILABLE FOR BENEFITS</b>                 | <b>\$27,744,753</b> |

See accompanying notes to financial statements.

## Artesian Resources Corporation Retirement Plan

## Statement of Net Assets Available for Benefits

December 31, 2009

|                                                          | 2009                |
|----------------------------------------------------------|---------------------|
| <b>ASSETS</b>                                            |                     |
| Cash                                                     | \$225               |
| Investments, at fair value                               |                     |
| Artesian Resources Corp. Class A non-voting common stock | 3,007,412           |
| Collective trusts                                        | 2,490,818           |
| Mutual funds                                             | 18,256,589          |
| Total investments, at fair value                         | 23,754,819          |
| Participants' notes receivable                           | 238,185             |
| Contributions receivable                                 |                     |
| Employer                                                 | 143,091             |
| Participants                                             | --                  |
| Total contributions receivable                           | 143,091             |
| Total assets                                             | 24,136,320          |
| <b>LIABILITIES</b>                                       | <b>245</b>          |
| <b>NET ASSETS AVAILABLE FOR BENEFITS</b>                 | <b>\$24,136,075</b> |
| See accompanying notes to financial statements.          |                     |

## Artesian Resources Corporation Retirement Plan

## Statement of Changes in Net Assets Available for Benefits

For the Year Ended December 31, 2010

|                                                                    | 2010         |
|--------------------------------------------------------------------|--------------|
| <b>ADDITIONS TO NET ASSETS ATTRIBUTED TO:</b>                      |              |
| Net investment income                                              |              |
| Artesian Resources Corp. Class A non-voting common stock dividends | \$124,837    |
| Interest and dividend income from other investments                | 431,433      |
| Net appreciation in fair value of investments                      | 2,285,750    |
| Total net investment income                                        | 2,842,020    |
| Interest income from participant notes                             | 16,564       |
| <b>Contributions</b>                                               |              |
| Employer contributions                                             | 909,617      |
| Participant contributions                                          | 1,083,314    |
| Participant rollovers                                              | 43,264       |
| Total contributions                                                | 2,036,195    |
| Total additions                                                    | 4,894,779    |
| <b>DEDUCTIONS FROM NET ASSETS ATTRIBUTED TO:</b>                   |              |
| Participant distributions                                          | 1,283,250    |
| Administrative expenses                                            | 2,851        |
| Total deductions                                                   | 1,286,101    |
| NET INCREASE                                                       | 3,608,678    |
| NET ASSETS AVAILABLE FOR BENEFITS - BEGINNING OF YEAR              | 24,136,075   |
| NET ASSETS AVAILABLE FOR BENEFITS - END OF YEAR                    | \$27,744,753 |
| See accompanying notes to financial statements.                    |              |

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements

Note A - Description of the Plan

1. General

Effective July 1, 1984, Artesian Resources Corporation (the “Company” or “Plan Sponsor” or “Employer”) established the Artesian Resources Corporation Retirement Plan (the “Plan”) as a defined contribution retirement plan for its employees, subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). Pursuant to Internal Revenue Code (IRC) Section 401(k), the Plan permits employees to exclude contributions to the Plan from their current taxable income, subject to certain limits. The Plan is administered by a Committee of Trustees, which consists of six members appointed by the Company’s Board of Directors. Plan administration expenses may be paid out of the Plan unless paid by the Company (Note C). The Plan was amended and restated as of January 1, 2011 as described below. The following description of the Plan provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan’s provisions.

2. Participation and Vesting

Generally, all employees are eligible for Plan participation after attaining age 21 and completing 1,000 hours of service during a one-year period. Employees may elect to make tax-deductible contributions up to the IRC limitation of \$16,500 (\$22,000 for participants age 50 and older) for all deferrals under the plan in 2010. For every dollar an employee contributes up to 6% of compensation, the Company will provide a 50% matching contribution. In each Plan year, the Company may make a discretionary contribution to the Plan based on up to 2% of compensation for all employees eligible to participate in the Plan. The full discretionary contribution was made for 2010. The total matching, discretionary, and service contributions in 2010 were \$359,997, \$307,919 and \$259,363, respectively.

Effective January 1, 2007, the Company’s Board of Directors, at its sole discretion, may make a Special Discretionary Stock Contribution to the Plan. A Special Discretionary Stock Contribution was not made for 2010.

The trust maintains separate accounts for each participant in the Plan. These accounts are credited with the participants’ contributions and Plan earnings and may be charged with certain administrative expenses. Participant contributions, and the related earnings, are fully vested. Company contributions, and the related earnings, vest as follows:



| Years of Service  | Vested Percentage |
|-------------------|-------------------|
| Less than 2       | 0 %               |
| 2 but less than 3 | 20 %              |
| 3 but less than 4 | 40 %              |
| 4 but less than 5 | 60 %              |
| 5 but less than 6 | 80 %              |
| 6 years or more   | 100 %             |

Any forfeitures of non-vested contributions are offset against required Company contributions.

The Company also sponsored another defined contribution plan for its employees, the Supplemental Plan, which was merged into the Plan on March 31, 2000. The contribution and vesting guidelines for the participants of the Supplemental Plan continued and consist of the following:

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note A - Description of the Plan (Continued)

2. Participation and Vesting (Continued)

- Only employees as of April 26, 1994 are eligible for participation.
- A service contribution is made by the Company to the Plan for all eligible participants each quarter based upon each employee's years of service and current compensation in accordance with the following schedule:

| Years of Service | Percent of Compensation |
|------------------|-------------------------|
| 1 - 5            | 2%                      |
| 6 - 10           | 4%                      |
| 11 - 20          | 5%                      |
| over 20          | 6%                      |

- Participant contributions, and the related earnings thereon, are fully vested at all times. Company contributions, and the related earnings thereon, vest as follows:

| Years of Service  | Vested Percentage |
|-------------------|-------------------|
| Less than 2       | 0 %               |
| 2 but less than 3 | 20 %              |
| 3 but less than 4 | 40 %              |
| 4 but less than 5 | 60 %              |
| 5 but less than 6 | 80 %              |
| 6 years or more   | 100 %             |

Forfeitures are offset against required Company contributions. Any participant who separates from the Company for any reason, shall be entitled to receive the vested interest in their account.

3. Investment Elections

Effective July 1, 2009, all future discretionary Company contributions, as well as all prior discretionary contributions and the corresponding earnings thereon, are participant directed. Prior to July 1, 2009, discretionary Company contributions were invested by the Trustee in a uniform manner for all participants.

Participants may allocate basic contributions among the various investments options, including the Company's Class A non-voting common stock.

Participants may elect an allocation among one or more of the investment funds in multiples of 1% with a minimum investment of 1% in any selected fund.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note A - Description of the Plan (Continued)

4. Participant Notes Receivable

Participants may borrow from the Plan under the following guidelines:

- A participant may borrow as much as 50% of his or her account balance, subject to certain minimum and maximum limitations as defined in the Plan.
- Loans are repaid over a period not to exceed five years, unless the loan is to buy, build, or substantially rehabilitate the borrower's principal residence.
- The participant's account balance is secured as collateral when the loan is executed. If a participant defaults on a loan, the loan is treated as a distribution from the Plan to the participant.
- Interest rates on loans are prime plus 1% at the date of the loan. Interest ranged from 4.25% to 9.75% for the year ended December 31, 2010.
- As loans are repaid to the Plan, the total payment, principal plus interest, is credited back to the participant's account.

5. Benefits

Participants are entitled to a benefit payment equal to the amount credited to their accounts upon retirement, upon permanent disability, at age 59½, or upon termination of employment or death. In the event of death of a participant, a death benefit payment is made to the participant's beneficiary. In the event of termination, distributions of less than \$1,000 must be made in a lump sum. All other distributions may be made in the form of a joint and survivor annuity, installments, or in a lump sum subject to certain restrictions as defined in the Plan.

6. Significant Plan Amendments

The Plan was amended and restated effective January 1, 2011 in the following respects:

- Employees are eligible to participate in the Plan immediately on date of hire and upon having attained age 18.
- Employees may elect to make Roth 401(k) contributions.
- Employee bonuses are included in the definition of compensation.

7. Plan Termination

The Company may amend or terminate the Plan. In the event of Plan termination, the accounts of all participants affected shall become fully vested and non-forfeitable. Assets remaining in the Plan may be immediately distributed to the participants, inactive participants, and beneficiaries in proportion to their respective account balances; or the trust may be continued with distributions made at such time and in such manner as though the Plan had not been terminated.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note A - Description of the Plan (Continued)

8. Forfeitures

Forfeited balances are used to reduce the Plan sponsor's future matching contribution obligations. During the year ended December 31, 2010, these forfeitures amounted to \$17,664.

9. Administrative Expenses

Certain administrative expenses of the Plan are paid by the Employer. The Plan pays for certain member requested services and investment fees which totaled \$2,851 for the year ended December 31, 2010. The fees for participant requested services are charged to the accounts of participants requesting the transaction. Investment fees are allocated to participants' accounts based on a specified basis point per investment through the investments' earnings.

Note B - Significant Accounting Policies

1. Basis of Accounting

For financial reporting purposes, the assets and liabilities of the Plan are reflected on the accrual basis of accounting.

2. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements and changes therein. Actual results could differ from those estimates.

3. Investment Valuation and Income Recognition

Plan assets held in mutual funds (shares of registered investment companies) and the Company's Class A non-voting common stock are unsecured and are traded on national securities exchanges. Mutual funds are valued at net asset value and common stock is valued at market value at December 31, 2010 and 2009.

Plan assets held in collective trusts are unsecured and are valued at trading unit prices, which approximates fair value. The collective trust fund represents investments in the Union Bond & Trust Company Stable Value Fund. As described in Accounting Standards Codification (ASC) 962-325, Plan Accounting—Defined Contribution Pension Plans/Investments—Other (formerly FASB Staff Position No. AAG INV-1 and SOP 94-4-1, Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans), investment contracts are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined contribution plan attributable to fully benefit-responsive investment contracts, because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan. Units held are valued at the unit value which is based on contract value and approximates fair value in accordance with the audited financial statements of the stable value fund as of December 31, 2009.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note B - Significant Accounting Policies (Continued)

In accordance with the policy of stating investments at fair value, net unrealized appreciation (depreciation) for the year is included in the statement of changes in net assets available for benefits.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

4. Due from Broker

Amounts due from broker represent the sale of mutual fund and stable value fund investments on December 31, 2010 to purchase investments through the new custodian, accounted for on the trade-date basis of accounting, as described in Note H.

5. Notes Receivable – Participant Loans

Participant loans are reclassified as participants' notes receivable, and are measured at the unpaid principal balance plus unpaid accrued interest. The Plan classifies loans in default for various events, including failure to pay timely installments. Defaulted loans are deemed distributed and recorded as benefits paid to participants in the statement of changes in net assets available for benefits. There were no amounts recorded as deemed distributions in 2010.

6. Benefit Payments and Participant Distributions

Participant distributions are recorded when paid.

7. Income Taxes

The Internal Revenue Service has determined and informed the Company by a letter dated March 19, 2002, that the original Plan plus amendments is qualified and the trust established under the Plan is tax exempt under the appropriate sections of the Internal Revenue Code. The Plan has been amended since receiving the determination letter. However, the Plan administrator and the Plan's tax counsel believe that the Plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the financial statements.



The Plan Sponsor has analyzed the tax positions taken by the Plan and has concluded that, as of December 31, 2010, no uncertain tax positions are taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, currently no audits are in progress for any tax periods. The Plan administrator believes it is no longer subject to income tax examinations for years prior to 2007.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note B - Significant Accounting Policies (Continued)

8. Cash and Cash Equivalents

Cash and cash equivalents include cash and short-term interest-bearing investments with initial maturities of three months or less.

9. New Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update 2010-06, Fair Value Measurements and Disclosures (Topic 820)—Improving Disclosures About Fair Value Measurements (ASU 2010-06). It requires improved disclosures about fair value measurements, including reporting of significant transfers between Level 1 and Level 2 assets and presenting purchases, sales, issuances, and settlements on a gross basis (instead of as one net amount) in the reconciliation of activity in Level 3 assets. These requirements are effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosure of Level 3 purchases, sales, issuances and settlements on a gross basis, which is effective for interim and annual reporting periods beginning after December 15, 2010. The Plan adopted ASU 2010-06 as of December 31, 2010. The adoption did not have a material effect on the Plan's financial statements.

In September 2010, the FASB issued ASU 2010-25, Plan Accounting—Defined Contribution Pension Plans, which requires that participant loans be classified separately from investments as participant notes receivable, valued at their unpaid principal balance plus any accrued but unpaid interest rather than at fair value. ASU 2010-25 is effective for fiscal years ending after December 15, 2010 and is to be applied retrospectively to all prior periods presented. The Plan adopted ASU 2010-25 as of December 31, 2010. The adoption did not have a material effect on the Plan's financial statements, as the unpaid balance plus any accrued but unpaid interest approximated fair value.

Note C - Plan Administration Expenses

Plan administration fees are based on asset value and number of participants. The Plan invests in various mutual funds with revenue-sharing agreements that help to offset fees. The Company paid the following net Plan expenses on behalf of the Plan in 2010:

|                          |    |          |
|--------------------------|----|----------|
| Fees charged to the Plan | \$ | 80,361   |
| Revenue-sharing offsets  |    | (62,131) |
| Net Plan expenses        | \$ | 18,230   |

Note D – Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits. At December 31, 2010, the Plan has no investments in mutual fund money market accounts.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note E - Investments

During the year ended December 31, 2010, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value as follows:

|                                                          | 2010         |
|----------------------------------------------------------|--------------|
| Artesian Resources Corp. Class A non-voting common stock | \$ 163,471   |
| Collective trusts                                        | 47,620       |
| Mutual funds                                             | 2,074,659    |
|                                                          | \$ 2,285,750 |

The following investments each represent 5% or more of the net assets available for benefits at December 31:

|                                                          | 2010        | 2009         |
|----------------------------------------------------------|-------------|--------------|
| Common Stocks                                            |             |              |
| Artesian Resources Corp. Class A non-voting common stock | \$3,322,338 | \$ 3,007,412 |
| Collective Trusts                                        |             |              |
| Union Bond & Trust Co. Stable Value Fund                 | *           | \$ 2,490,818 |
| Mutual Funds                                             |             |              |
| American Funds Growth Fund of America A                  | *           | \$ 4,358,955 |
| Davis Funds NY Venture A                                 | *           | \$ 4,096,576 |
| Dodge & Cox Funds Stock Fund                             | *           | \$ 2,622,350 |
| PIMCO Funds Total Return Fund Admin                      | *           | \$ 2,928,361 |
| Templeton Foreign Fund R                                 | *           | \$ 1,265,046 |

\* Investments individually represent less than 5% of net assets.

FASB Accounting Standards Codification (ASC) 820, Fair Value Measurements and disclosure defines fair value, establishes a framework for using fair value to measure assets and liabilities, and expands disclosures about fair value measurements. This framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3

measurements). The three levels of the fair value hierarchy under FASB ASC 820 are as follows:

- Level 1: unadjusted quoted prices in active markets for identical assets or liabilities that the Plan has the ability to access;

## Artesian Resources Corporation Retirement Plan

## Notes to the Financial Statements (Continued)

## Note E – Investments (Continued)

· Level 2: inputs other than Level 1 that are observable, either directly or indirectly, such as quoted market prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in non-active markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or

· Level 3: inputs that are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31:

## Investments at Fair Value as of December 31, 2010

|                                                                      | Level 1      | Level 2 | Level 3 | Total        |
|----------------------------------------------------------------------|--------------|---------|---------|--------------|
| Artesian Resources Corporation<br>Class A non-voting common<br>stock | \$ 3,322,338 | \$ ---  | \$ ---  | \$ 3,322,338 |
| Total investments at fair value                                      | \$ 3,322,338 | \$ --   | \$ --   | \$ 3,322,338 |

## Investments at Fair Value as of December 31, 2009

|                                                                      | Level 1       | Level 2   | Level 3 | Total         |
|----------------------------------------------------------------------|---------------|-----------|---------|---------------|
| Registered investment<br>companies                                   | \$ 18,256,589 | \$ ---    | \$ ---  | \$ 18,256,589 |
| Artesian Resources Corporation<br>Class A non-voting common<br>stock | 3,007,412     | ---       | ---     | 3,007,412     |
| Common collective fund                                               | ---           | 2,490,818 | ---     | 2,490,818     |

|                                 |               |              |        |               |
|---------------------------------|---------------|--------------|--------|---------------|
| Total investments at fair value | \$ 21,264,001 | \$ 2,490,818 | \$ --- | \$ 23,754,819 |
|---------------------------------|---------------|--------------|--------|---------------|

Note F – Distributions Payable

Amounts allocated to withdrawing participants are reported on the Schedule H of Form 5500 for benefit claims that have been processed and approved for payment prior to December 31, but not yet paid as of that date.

At December 31, 2010 and 2009, there were no net assets available for plan benefits for distributions to participants who have requested a distribution from the Plan prior to the end of the Plan year.

Artesian Resources Corporation Retirement Plan

Notes to the Financial Statements (Continued)

Note G – Related Party Transactions

Artesian Resources Corporation and its employees are parties-in-interest to the Plan. On December 31, 2010, the Plan's assets included \$3,322,338 of Artesian Resources Corporation Class A non-voting stock and \$221,266 of participant notes receivable. Transactions in these assets are exempt from the prohibited transaction rules.

Note H – Subsequent Events

As described in Note A (6), the Plan was amended and restated effective January 1, 2011. In addition to the Plan amendments noted above, the Company changed their Plan custodian effective January 1, 2011. Under the new custodian, the previously held mutual fund and stable value fund shares existing at the old custodian were not available as participant directed investment options.

Therefore, on December 31, 2010, all mutual fund and stable value fund investments were sold for cash, subsequently used to purchase investments through the new custodian, which was settled on January 3, 2011. The Plan follows trade-date accounting, which requires the sold, but not yet settled mutual fund shares to be presented as "Due from broker" in the financial statements. The Artesian Resource Corporation Common Stock was available under the new custodian, and was therefore transferred on December 31, 2010 and is presented as an investment.



Supplementary Information

---

Artesian Resources Corporation Retirement Plan  
 EIN 51-0002090, Plan No. 003

Schedule H, Line 4i: Schedule of Assets (Held at End of Year)

December 31, 2010

| (a) | (b)                                                          | (c)<br>Description of investment,<br>including maturity date, rate of<br>interest, collateral, par, or<br>maturity value | (d)<br>Cost** | (e)<br>Current<br>Value |
|-----|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|
| *   | Common Stock -<br>Artesian<br>Resources<br>Corporation       | Class A non-voting common<br>stock                                                                                       | \$            | 3,322,338               |
| *   | Participant Notes<br>Receivable -<br>Various<br>participants | Interest rates range from 4.25%<br>to 9.75%                                                                              | \$            | 221,266<br>3,543,604    |

\* Identifies the party as a "Party in Interest."

\*\* Cost information is not required for participant directed investments and is therefore not included.

See accompanying Report of Independent Registered Public Accounting Firm.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Committee has duly caused this Annual Report to be signed on its behalf by the undersigned hereunto duly authorized.

ARTESIAN RESOURCES CORPORATION RETIREMENT PLAN

Date: June 27, 2011      By:

/s/ Joseph A. DiNunzio  
Joseph A. DiNunzio  
Executive Vice President and Corporate Secretary