PRELIMINARY OFFICIAL STATEMENT DATED DECEMBER 1, 2016

NEW ISSUE Rating: S&P:"AA+" (stable outlook)
Book-Entry-Only (See "MISCELLANEOUS – RATING" herein.)

In the opinion of Bond Counsel, based on existing law and assuming compliance with certain tax covenants of the District, interest on the 2016 Bonds will be excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and corporations; however, such interest is taken into account in determining the adjusted current earnings of certain corporations for purposes of the alternative minimum tax on corporations. For an explanation of certain tax consequences under federal law which may result from the ownership of the 2016 Bonds, see the discussion under the heading "Legal Matters - Tax Matters" herein. Under existing law, the 2016 Bonds and the income therefrom will be exempt from all state, county and municipal taxation in the State of Tennessee, except Tennessee franchise and excise taxes. (See "Legal Matters - Tax Matters" herein).

$26,285,000*
WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE
Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016

Dated: Date of Issuance **Due:** June 1, as shown on the inside cover

This cover page contains information for quick reference only. It is not a summary of this issue. Investors must read the entire *Preliminary Official Statement* to obtain information essential to make an informed investment decision.

The West Knox Utility District of Knox County, Tennessee (the "District") is issuing its $26,285,000* Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016 (the "2016 Bonds") pursuant to the provisions of Title 7, Chapter 82, *Tennessee Code Annotated*, as supplemented and amended (the "District Act"), and other applicable provisions of law and pursuant to a resolution adopted by the Board of Commissioners of the District (the "Governing Body") on June 11, 1997, as amended and restated in its entirety by a resolution adopted by the Governing Body on August 27, 2009, as amended and supplemented by resolutions adopted by the Governing Body on October 28, 2010, December 9, 2015, and November 17, 2016 (collectively, the "Resolution").

The 2016 Bonds will be issued in fully registered form, in denominations of $5,000 and authorized integral multiples thereof. The 2016 Bonds will be issued in book-entry-only form and registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository of the 2016 Bonds. So long as Cede & Co. is the registered owner of the 2016 Bonds, as the nominee for DTC, principal and interest with respect to the 2016 Bonds shall be payable to Cede & Co., which will, in turn, remit such principal and interest to the DTC participants for subsequent disbursements to the beneficial owners of the 2016 Bonds. See Appendix F affixed hereto for more information on the book-entry system.

Interest on the 2016 Bonds will be payable on June 1, 2017 and semiannually thereafter on each June 1 and December 1 to the owners thereof as shown on the books and records of Regions Bank, Nashville, Tennessee, the registration and paying agent (the "Registration Agent").

The 2016 Bonds may be subject to optional and mandatory redemption prior to maturity, as described herein.

The 2016 Bonds shall be payable from the Net Revenues (as defined herein) derived from the operation of the water and sewer system of the District (the "System"), on a parity and equality of lien with the District's outstanding (i) indebtedness pursuant to a Loan Agreement between the District and The Public Building Authority of Sevier County, Tennessee (the "Authority"), dated July 1, 2000, which includes an interest rate swap agreement between the District and Raymond James Financial Products, Inc., dated September 22, 2009, (ii) indebtedness pursuant to a Loan Agreement between the District and the Authority, dated August 28, 2009, (iii) Taxable Water and Sewer Revenue Bonds, Series 2010 (Federally Taxable – Build America Bonds – Direct Subsidy), dated November 30, 2010, and (iv) Water and Sewer Revenue Bonds, Series 2015, dated December 22, 2015. The District has reserved the right to issue other Parity Obligations in the future on parity with the 2016 Bonds. See the section herein entitled "SECURITY AND SOURCE OF PAYMENT" for additional information.

NEITHER THE FULL FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TENNESSEE OR ANY POLITICAL SUBDIVISION THEREOF, INCLUDING THE DISTRICT, IS PLEDGED TO THE PAYMENT OF THE 2016 BONDS.

The 2016 Bonds are being issued for the purposes of providing funds to (a) finance or reimburse costs of (i) the acquisition of land for and the construction, improvement, renovation and equipping of improvements and additions to the System and (ii) the acquisition of all property, real and personal, appurtenant or connected thereto (collectively, the "Projects"); (b) refund all or a portion of the District's outstanding (i) Rural Development Water and Sewer Revenue Bonds, Series 2004 and (ii) Tennessee Local Development Authority Loan, Series CWA 2009-245; and (c) pay costs incident to the issuance of the 2016 Bonds. See the section herein entitled "PLAN OF FINANCE" for additional information.

On or about the date of issuance of the 2016 Bonds, the District intends to borrow up to $25,000,000 from the Authority to provide additional financing for the Projects. See the sections herein entitled "PLAN OF FINANCE" and "MISCELLANEOUS – ADDITIONAL DEBT" for more information.

The 2016 Bonds are offered when, as and if issued by the District, subject to the approval of the legality thereof by Robertson Overbey, Knoxville, Tennessee, bond counsel, whose opinion will be delivered with the 2016 Bonds. Certain legal matters in connection with the 2016 Bonds are subject to the approval of Robertson Overbey, Knoxville, Tennessee, as counsel to the District. Certain legal matters will be passed upon for the Underwriter by Bass, Berry & Sims PLC, Knoxville, Tennessee, counsel to the Underwriter. It is expected that the 2016 Bonds will be available for delivery through the facilities of DTC, New York, New York, on or about December 22, 2016.

BofA Merrill Lynch

December __, 2016

* Preliminary, subject to change.

$26,285,000*
WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE
Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016

MATURITY SCHEDULE

$10,995,000* Serial Bonds

Due* (June 1)	Amount*	Interest Rate	Yield	Initial CUSIP Number**	Due* (June 1)	Amount*	Interest Rate	Yield	Initial CUSIP Number**
2020	$1,765,000				2029	$ 630,000			
2021	195,000				2030	695,000			
2022	270,000				2031	700,000			
2023	320,000				2032	700,000			
2024	375,000				2033	775,000			
2025	425,000				2034	830,000			
2026	455,000				2035	885,000			
2027	510,000				2036	940,000			
2028	525,000								

$5,240,000* __% Term Bond due on June 1, 2041* -- Yield __% -- Initial CUSIP Number __**

$10,050,000* __% Term Bond due on June 1, 2046* -- Yield __% -- Initial CUSIP Number __**

* Preliminary, subject to change.

** Neither the District nor the Underwriter are responsible for the use of the CUSIP Numbers referenced herein nor is any representation made by the District or the Underwriter as to their correctness. The CUSIP Numbers provided herein are included solely for the convenience of the readers of this Official Statement.

IN CONNECTION WITH THIS OFFERING, MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED (THE "UNDERWRITER") MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2016 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET, AND SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

This Preliminary Official Statement may contain forecasts, projections, and estimates that are based on current expectations but are not intended as representations of fact or guarantees of results. If and when included in this Preliminary Official Statement, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," and analogous expressions are intended to identify forward-looking statements as defined in the Securities Act of 1933, as amended, and any such statements inherently are subject to a variety of risks and uncertainties, which could cause actual results to differ materially from those contemplated in such forward-looking statements. These forward-looking statements speak only as of the date of this Preliminary Official Statement. The District disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in the District's expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based.

No dealer, broker, salesman or other person has been authorized to give any information or to make any representation in connection with this offering other than as contained in this Official Statement, and, if given or made, such other information or representation must not be relied upon. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor will there be any sale of the 2016 Bonds by any person, in any jurisdiction in which it is not lawful for such person to make such offer, solicitation or sale. The information set forth herein has been obtained from the District and from other sources that are deemed to be reliable, but is not guaranteed as to accuracy or completeness by the Underwriter or Financial Advisor, and is not to be construed as a representation by the Underwriter or Financial Advsior.

The electronic distribution of this Official Statement does not constitute an offer to sell or the solicitation of an offer to buy the 2016 Bonds described herein to the residents of any particular state and is not specifically directed to the residents of any particular state. The 2016 Bonds will not be offered or sold in any state unless and until they are either registered pursuant to the laws of such state, or qualified pursuant to an appropriate exemption from registration in such state.

The information set forth herein has been obtained from sources which are believed to be reliable and is in form deemed final by the District for the purpose of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended (except for certain information permitted to be omitted under Rule 15c2-12(b)(1)).

Neither the 2016 Bonds nor the Resolution (as hereinafter defined) has been registered or qualified with the Securities and Exchange Commission by reason of the provisions of Section 3(a)(2) of the Securities Act of 1933, as amended, and Section 304(a)(4) of the Trust Indenture Act of 1939, as amended. The registration or qualification of the 2016 Bonds and the Resolution in accordance with applicable provisions of securities laws of the states in which the 2016 Bonds and the Resolution have been registered or qualified, and the exemption from registration or qualification in other states, will not be regarded as a recommendation thereof.

In making an investment decision, investors must rely on their own examination of the terms of the offering, including the merits and risks involved. These securities have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this document. Any representation to the contrary is a criminal offense.

All quotations from and summaries and explanations of laws and documents herein do not purport to be complete, and reference is made to such laws and documents for full and complete statements of their provisions. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinions and not as representations of fact. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale of the 2016 Bonds will under any circumstances create any implication that there has been no change in the affairs of the District since the date hereof.

The CUSIP numbers on the inside cover of this Official Statement are provided for convenience of reference only. Neither the District nor the Underwriter make any representation as to the correctness of the CUSIP numbers either as printed on the 2016 Bonds or as contained in this Official Statement.

The Underwriter has provided the following sentence for inclusion in this Official Statement. The Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this offering document for purposes of, and as that term is defined in, Rule 15c2-12 (as hereinafter defined).

WEST KNOX UTILITY DISTRICT OF
KNOX COUNTY, TENNESSEE

OFFICIALS

Daniel H. Hurst	*President*
Christopher P. Harrison	*Vice-President*
Ruth Ann Milsaps	*Secretary*

MANAGEMENT

Drexel A. Heidel	*General Manager*
Wayne Hastings	*Assistant Manager*
Kimberly H. Green	*Comptroller*

REGISTRATION AND PAYING AGENT

Regions Bank
Nashville, Tennessee

BOND AND ISSUER COUNSEL

Robertson Overbey
Knoxville, Tennessee

FINANCIAL ADVISOR

Cumberland Securities Company, Inc.
Knoxville, Tennessee

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$26,285,000*
WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE
Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016

THE 2016 BONDS

AUTHORIZATION

This *Preliminary Official Statement*, which includes the Appendices affixed hereto, is furnished in connection with the offering by West Knox Utility District of Knox County, Tennessee (the "District" or "Issuer") of its $26,285,000* Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016 (the "2016 Bonds").

The 2016 Bonds are authorized to be issued pursuant to the provisions of Title 7, Chapter 82, *Tennessee Code Annotated*, as supplemented and amended (the "District Act"), and other applicable provisions of law and pursuant to a resolution adopted by the Board of Commissioners of the District (the "Governing Body") on June 11, 1997, as amended and restated in its entirety by a resolution adopted by the Governing Body on August 27, 2009, as amended and supplemented by resolutions adopted by the Governing Body on October 28, 2010, December 9, 2015, and November 17, 2016 (collectively, the "Resolution").

A summary of the Resolution is provided in Appendix C affixed hereto. Any reference to the Resolution is qualified by the entire, actual content of the Resolution, which may be obtained from Daniel Hurst, District President, P.O. Box 51370, Knoxville, Tennessee 37950, Telephone: 865-690-2521 or the District's Financial Advisor, Cumberland Securities Company, Inc., Telephone: 865-988-2663. All capitalized terms used herein but not defined herein shall have the meanings set forth in Appendix C hereto.

The 2016 Bonds shall be signed by the signature of the District's President and shall be attested by the signature of the District's Secretary. No Bond shall be valid until it has been authorized by the manual signature of an authorized officer or employee of the Registration Agent and the date of authentication noted thereon.

PURPOSE

The 2016 Bonds are being issued for the purposes of providing funds to (i) finance (a) the acquisition of land for and the construction, improvement, renovation and equipping of improvements and additions to the water and sewer system of the District (the "System") and (b) the acquisition of all property, real and personal, appurtenant or connected thereto (collectively, the "Projects"); (ii) refund all or a portion of the District's outstanding (a) Rural Development Water and Sewer Revenue Bonds, Series 2004 (the "Rural Development Bonds") and (b) Tennessee Local Development Authority Loan, Series CWA 2009-245 (the "State Loan" and, together with the Rural Development Bonds, the "Refunded Debt"); and (iii) pay costs incident to the issuance of the 2016 Bonds. See the sections entitled "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF PROCEEDS" herein.

GENERAL TERMS

Payment Terms. The 2016 Bonds will be dated as of the date of their delivery and will bear interest from their date, payable on June 1, 2017, and semiannually thereafter on each June 1 and

* Preliminary, subject to change.

December 1 (the "Interest Payment Dates"), at the rates shown on the inside cover page (calculated on the basis of a 360-day year consisting of twelve 30-day months).

Interest on the 2016 Bonds will be paid on the Interest Payment Date to the persons appearing on the record books of the Registration Agent as the registered owners of the 2016 Bonds as of the close of business on the record date for the Interest Payment Date, which shall be the fifteenth day of the month preceding the Interest Payment Date. Principal on the 2016 Bonds will be payable, subject to redemption as described herein, on June 1 in the years and amounts shown on the inside cover page. Payments will be effected through The Depository Trust Company, New York, New York ("DTC"). See Appendix F affixed hereto for a discussion of DTC and the book-entry system.

Denominations. The 2016 Bonds are issuable only as fully registered bonds in denominations of $5,000 and integral multiples thereof.

Transfer, Registration and Exchange. So long as DTC or its nominee is the registered owner of the 2016 Bonds, transfers, registration of transfers and exchanges of beneficial ownership interests in the 2016 Bonds will be available only through DTC participants. See Appendix F affixed hereto for a discussion of DTC and the book-entry system.

REGISTRATION AGENT

The Registration Agent, Regions Bank, Nashville, Tennessee, will make all interest payments with respect to the 2016 Bonds on each Interest Payment Date directly to Cede & Co., as nominee of DTC, the registered owner as shown on the bond registration records maintained by the Registration Agent as of the close of business on the fifteenth day of the month next preceding the interest payment date (the "Regular Record Date") by check or draft mailed to such owner at its address shown on said bond registration records, without, except for final payment, the presentation or surrender of such registered Bonds, and all such payments shall discharge the obligations of the District in respect of such Bonds to the extent of the payments so made. Payment of principal of the 2016 Bonds shall be made upon presentation and surrender of such Bonds to the Registration Agent as the same shall become due and payable.

Any interest on any 2016 Bond which is payable but is not punctually paid or duly provided for on any interest payment date (hereinafter "Defaulted Interest") shall forthwith cease to be payable to the registered owner on the relevant Regular Record Date; and, in lieu thereof, such Defaulted Interest shall be paid by the District to the persons in whose names the 2016 Bonds are registered at the close of business on a date (the "Special Record Date") for the payment of such Defaulted Interest, which shall be fixed in the following manner: the District shall notify the Registration Agent in writing of the amount of Defaulted Interest proposed to be paid on each 2016 Bond and the date of the proposed payment, and at the same time the District shall deposit with the Registration Agent an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Registration Agent for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the persons entitled to such Defaulted Interest. Thereupon, not less than ten (10) days after the receipt by the Registration Agent of the notice of the proposed payment, the Registration Agent shall fix a Special Record Date for the payment of such Defaulted Interest which date shall be not more than fifteen (15) nor less than ten (10) days prior to the date of the proposed payment to the registered owners. The Registration Agent shall promptly notify the District of such Special Record Date and, in the name and at the expense of the District, not less than ten (10) days prior to such Special Record Date, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first class postage prepaid, to each registered owner at the address thereof as it appears in the bond registration records maintained by the Registration Agent as of the date of such notice. Nothing contained in the Resolution or in the 2016 Bonds shall impair any statutory or other rights in law or in equity of any registered owner arising as a result of the failure of the District to punctually pay or duly provide for the payment of principal of, premium, if any, and interest on the 2016 Bonds when due.

So long as Cede & Co. is the Registered Owner of the 2016 Bonds, as nominee of DTC, references herein to the Bondholders, Holders or Registered Owners of the 2016 Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners of the 2016 Bonds.

REDEMPTION PROVISIONS*

Optional Redemption of the 2016 Bonds. The 2016 Bonds maturing on or before June 1, 20__ are not subject to optional call and redemption prior to maturity. The 2016 Bonds maturing after June 1, 20__ may be redeemed prior to their maturities, at the option of the District, from any funds that may be available for such purpose, either in whole or in part on any date on or after June 1, 20__ at a redemption price of 100% of the principal amount of 2016 Bonds to be redeemed, plus accrued interest to the Redemption Date.

Mandatory Sinking Fund Redemption of the 2016 Bonds. The 2016 Bonds maturing on June 1, 2041 (the "2041 Term Bonds"), are subject to mandatory redemption prior to maturity, in part, on each June 1, with the 2041 Term Bonds to be redeemed at the redemption price of 100% of the principal amount thereof, without premium, in amounts and in the years as follows:

REDEMPTION DATE*	PRINCIPAL AMOUNT*
06/01/2037	$1,040,000
06/01/2038	1,045,000
06/01/2039	1,050,000
06/01/2040	1,050,000
06/01/2041**	1,055,000

**Maturity

The 2016 Bonds maturing on June 1, 2046 (the "2046 Term Bonds," and together with the 2041 Term Bonds, the "Term Bonds"), are subject to mandatory redemption prior to maturity, in part, on each June 1, with the 2046 Term Bonds to be redeemed at the redemption price of 100% of the principal amount thereof, without premium, in amounts and in the years as follows:

REDEMPTION DATE*	PRINCIPAL AMOUNT*
06/01/2042	$2,050,000
06/01/2043	2,030,000
06/01/2044	2,010,000
06/01/2045	1,990,000
06/01/2046**	1,970,000

**Maturity

At its option, to be exercised on or before the forty-fifth (45) day next preceding any such redemption date, the District may (i) deliver to the Registration Agent for cancellation 2016 Bonds of the maturity to be redeemed, in any aggregate principal amount desired, and/or (ii) receive a credit in respect of its redemption obligation for any 2016 Bonds of the maturity to be redeemed which prior to said date have been purchased or redeemed (otherwise than through the operation of this section) and canceled by the Registration Agent and not theretofore applied as a credit against any redemption obligation. Each 2016

* Preliminary, subject to change.

Bond so delivered or previously purchased or redeemed shall be credited by the Registration Agent at 100% of the principal amount thereof on the obligation of the District on such payment date and any excess shall be credited on future redemption obligations in chronological order, and the principal amount of Bonds to be redeemed by operation shall be accordingly reduced. The District shall on or before the forty-fifth (45) day next preceding each payment date furnish the Registration Agent with its certificate indicating whether or not and to what extent the provisions of clauses (i) and (ii) described above are to be availed of with respect to such payment and confirm that funds for the balance of the next succeeding prescribed payment will be paid on or before the next succeeding payment date.

Notice of Redemption. Notice of call for redemption, whether optional or mandatory, shall be given by the Registration Agent on behalf of the District not less than twenty (20) nor more than sixty (60) days prior to the date fixed for redemption by sending an appropriate notice to the registered owners of the 2016 Bonds to be redeemed by first-class mail, postage prepaid, at the addresses shown on the 2016 Bond registration records of the Registration Agent as of the date of the notice; but neither failure to mail such notice nor any defect in any such notice so mailed shall affect the sufficiency of the proceedings for redemption of any of the 2016 Bonds for which proper notice was given. As long as DTC, or a successor Depository, is the registered owner of the 2016 Bonds, all redemption notices shall be mailed by the Registration Agent to DTC, or such successor Depository, as the registered owner of the 2016 Bonds, as and when above provided, and neither the District nor the Registration Agent shall be responsible for mailing notices of redemption to DTC Participants or Beneficial Owners. Failure of DTC, or any successor Depository, to provide notice to any DTC Participant or Beneficial Owner will not affect the validity of such redemption. The Registration Agent shall mail said notices as and when directed by the District pursuant to written instructions from an authorized representative of the District (other than for a mandatory sinking fund redemption, notices of which shall be given on the dates provided herein) given at least forty-five (45) days prior to the redemption date (unless a shorter notice period shall be satisfactory to the Registration Agent). From and after the redemption date, all Bonds called for redemption shall cease to bear interest if funds are available at the office of the Registration Agent for the payment thereof and if notice has been duly provided as set forth herein.

Selection of 2016 Bonds for Redemption. If less than all of a series of 2016 Bonds are called for optional redemption, the District will select the maturity or maturities of the 2016 Bonds to be redeemed. If less than all 2016 Bonds of any maturity are to be redeemed, the 2016 Bonds to be redeemed will be selected (1) by DTC pursuant to its rules and procedures or (2) if a book-entry system is no longer in effect, by the Registration Agent by lot. If the 2016 Bonds are to be redeemed in part, they may be redeemed only in integral multiples of $5,000 and each $5,000 portion of the principal will be counted as one 2016 Bond of such series for such purpose. If a portion of a 2016 Bond is called for redemption, a new 2016 Bond in principal amount equal to the unredeemed portion thereof shall be issued to the Owner thereof on surrender thereof.

Effect of Call for Redemption. On or before the date on which the 2016 Bonds or portions thereof are to be redeemed, the District will deposit with a trust company or financial institution whose deposits are insured by the Federal Deposit Insurance Corporation or similar federal agency and which has trust powers in trust or escrow (the "Agent") money or Defeasance Obligations, or a combination of both, that will be sufficient to pay on the redemption date the redemption price of and interest accruing on the 2016 Bonds to be redeemed on such redemption date.

If notice is properly given, the 2016 Bonds or portions thereof so called for redemption shall be due and payable at the redemption price provided therefor, plus accrued interest to such date, and if moneys sufficient to pay the redemption price of the 2016 Bonds or portions thereof to be redeemed plus accrued interest thereon to the date of redemption are held by the Agent in trust for the Owners of 2016

Bonds to be redeemed, (1) interest on such 2016 Bonds or portions thereof shall cease to accrue from and after such date, (2) such 2016 Bonds or portions thereof shall cease to be entitled to any benefits or security under the Resolution or to be deemed Outstanding and (3) Owners of such 2016 Bonds or portions thereof shall have no right in respect thereof except to receipt of payment of the redemption price thereof, plus accrued interest to the date fixed for redemption, out of the moneys and/or Defeasance Obligations so deposited.

SECURITY AND SOURCE OF PAYMENT

GENERAL

NEITHER THE FULL FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TENNESSEE OR ANY POLITICAL SUBDIVISION THEREOF, INCLUDING THE DISTRICT, IS PLEDGED TO THE PAYMENT OF THE 2016 BONDS. The 2016 Bonds shall be payable from the Net Revenues (as defined below) on a parity and equality of lien with the District's outstanding (i) indebtedness pursuant to a Loan Agreement between the District and The Public Building Authority of Sevier County, Tennessee (the "Authority"), dated July 1, 2000, which includes an interest rate swap agreement between the District and Raymond James Financial Products, Inc., dated September 22, 2009, (ii) indebtedness pursuant to a Loan Agreement between the District and the Authority, dated August 28, 2009, (iii) Taxable Water and Sewer Revenue Bonds, Series 2010 (Federally Taxable – Build America Bonds – Direct Subsidy), dated November 30, 2010, and (iv) Water and Sewer Revenue Bonds, Series 2015, dated December 22, 2015 (collectively, the "Outstanding Parity Obligations"). The District has reserved the right to issue additional Parity Obligations in the future on parity with the 2016 Bonds.

PLEDGE OF NET REVENUES

Under the terms of the Resolution, the 2016 Bonds are secured by a pledge of and lien on the Net Revenues. See Appendix B for information regarding the District, the District's service area, the System and the District's debt service obligations payable from Net Revenues.

"Net Revenues" means Revenues, excluding any profits or losses on the sale or other disposition, not in the ordinary course of business, of investments or fixed or capital assets, less Current Expenses.

"Revenues" means all revenues, rentals, earnings and income of the District from whatever source, determined in accordance with generally accepted accounting principles, including all revenues derived from the operation of the System; proceeds from the sale of property; proceeds of insurance and condemnation awards and compensation for damages, to the extent not applied to the payment of the cost of repairs, replacements and improvements; and all amounts realized from the investment of money in the accounts and funds of the System, including money in any accounts and funds created by the resolution, and resolutions authorizing any Parity Obligations or obligations subordinate to the Obligations (excluding any investment earnings from construction or improvement funds created for the deposit of bond proceeds pending use, to the extent such income is applied to the purposes for which the bonds were issued, and funds created to refund any Refunded Loan Agreements payable from Revenues of the System); provided, however, (i) at the election of the District, Revenues shall not include any rates, fees, rentals or other charges or other income received by the District from the operation of an Acquired System and any bonds or other obligations issued in connection with such Acquired System shall not be payable from or secured by Net Revenues or be deemed to be Parity Obligations, and (ii) Revenues shall not include any payments to the District with respect to which an adjustment to the Debt Service Requirement has been made pursuant to the Resolution.

"Current Expenses" means expenses incurred by the District in the operation of the System, determined in accordance with generally accepted accounting principles, including the reasonable and necessary costs of operating, maintaining, repairing and insuring the System, the cost of acquiring water, salaries and wages, cost of material and supplies, and insurance premiums, but shall exclude depreciation, amortization and interest on any bonds, notes or other obligations of the District; provided that any payments made by the District to purchase water for delivery after the end of the then-current Fiscal Year shall be accounted for and charged to Current Expenses in accordance with generally accepted accounting principles, and any debt service incurred for the purpose of purchasing water for delivery after the end of the then-current Fiscal Year shall be treated as a Current Expense if so directed by the authorizing resolution.

RATE COVENANT

Pursuant to the Resolution, the District will at all times prescribe, fix, maintain, and collect rates, fees, and other charges for the services and facilities furnished by the System fully sufficient at all times: (1) for 100% of the Current Expenses and for the accumulation in the Revenue Fund of a reasonable reserve therefor, in an amount, if any, as shall be determined from time to time by the District; and (2) such that Net Revenues in each Fiscal Year: (A) will equal at least 120% of the Debt Service Requirement on the Obligations, and 100% of the Debt Service Requirement on any subordinate lien obligations or other obligations then outstanding for such Fiscal Year; (B) will enable the District to make all required payments, if any, into the Reserve Fund, on any Reserve Fund Credit Facility Agreement and any required payments under any Reimbursement Agreement; (C) will enable the District to accumulate an amount, which, in the judgment of the District, is adequate to meet the costs of major renewals, replacements, repairs, additions, betterments, and improvements to the System, necessary to keep the same in good operating condition or as is required by any governmental agency having jurisdiction over the System; and (D) will remedy all deficiencies in required payments into any of the funds and accounts mentioned in the Resolution from prior Fiscal Years.

See the section entitled “GENERAL INFORMATION – REGULATION” in Appendix B for information regarding state and local rate regulation.

NO RESERVE FUND

There will not be a reserve fund securing payment of the 2016 Bonds. Pursuant to the Resolution, the District may establish a reserve fund securing payment for other Obligations of the District, but such reserve fund will not be available for payment of the 2016 Bonds.

FLOW OF FUNDS

Pursuant to the Resolution, the District has agreed to deposit all Revenues derived from the operation of the System into the Revenue Fund (as defined in the Resolution). From the Revenue Fund, the District is required to pay the Current Expenses of the System, fund the various accounts established by the Resolution and pay all other payments required by the Resolution. See Appendix C for a description of the flow of funds.

STATUTORY MORTGAGE LIEN

A statutory mortgage lien is created and granted by the District Act on the System in favor of the owners of the 2016 Bonds, the Outstanding Parity Obligations and any Parity Obligations hereafter issued on a parity therewith, and the System shall remain subject to such statutory mortgage lien until the payment in full of the principal of and interest on all said indebtedness.

ADDITIONAL BONDS

The District may, from time to time, issue Parity Obligations under the terms of the Resolution. Such Parity Obligations will have a lien on the Net Revenues of the System on a parity and equality of lien with the 2016 Bonds and all Outstanding Parity Obligations. See Appendix C for the conditions under which Parity Obligations may be issued. The District may not issue bonds payable from or secured by a lien on the Net Revenues senior to that securing the payment of the 2016 Bonds and the Parity Obligations.

PLAN OF FINANCE

As hereinabove provided, the 2016 Bonds are being issued for the purposes of providing funds to (i) finance the Projects, (ii) refund the Refunded Debt, and (iii) pay costs incident to the issuance of the 2016 Bonds.

THE PROJECTS

In response to the continued and rapid growth of its sewer system and customer base, the District will use a portion of the proceeds of the 2016 Bonds, along with the additional financing described below, to construct the Projects, which consist of a new Melton Hill Wastewater Treatment Plant (the "Melton Hill WWTP") west of the Pellissippi Parkway with a new discharge directly into the main channel of the Clinch River. The initial plant capacity for the Melton Hill WWTP will be designed for a daily flow rate of 6.0 MGD with a peak flow condition of 15.0 MGD. The Tennessee Department of Environment and Conservation, Division of Water Resources, in consultation with the Tennessee Valley Authority, issued a National Pollutant Discharge Elimination System ("NPDES") permit dated April 1, 2013, providing for a 10.0 MGD average daily discharge into the Clinch River. Construction of these Projects is expected to take approximately two years, with completion anticipated in 2019.

The NPDES permit was issued contingent upon the elimination of the existing Karns WWTP once construction of the Melton Hill WWTP is completed and discharge into the Clinch River is initiated. The Melton Hill WWTP will replace the 4.0 MGD capacity of the Karns WWTP and is expected to serve the wastewater operational needs of the District for up to twenty years. The estimated total costs of the Projects are approximately $69,400,000, and such costs are expected to be funded from proceeds of the 2016 Bonds and the additional financing described below.

For the purpose of providing additional financing for the Projects, the District has previously issued its $9,995,000 Water and Sewer Revenue Bonds, Series 2015 and plans to issue approximately $25,000,000 in additional debt on or about the date of issuance of the 2016 Bonds pursuant to a loan agreement (the "PBA Loan Agreement") entered into by and between the District and the Authority (the "PBA Loan"). The PBA Loan will be funded with proceeds from the issuance by the Authority of its Local Government Public Improvement Bonds (Revenue Program V), Series V-E-1 (the "PBA Bonds"). For additional information on the PBA Loan and PBA Bonds, including the interest rate, bank renewal and acceleration risks presented thereby, see the section herein entitled "MISCELLANEOUS – ADDITIONAL DEBT". If the District determines that the financing described above is not sufficient to finance the costs of the Projects, the District may determine to issue additional debt to provide for the remaining financing.

REFUNDING OF THE REFUNDED DEBT

In addition to financing the Projects described above, the District has determined to currently refund its (i) Rural Development Bond for the purpose of achieving net present value debt service savings and (ii) State Loan for the purpose of eliminating certain onerous restrictions associated with the State Loan regarding the issuance of additional debt. Those 2016 Bond proceeds used to refund the Refunded Debt will be paid directly to the holders of such Refunded Debt for full prepayment thereof on or about the date of the 2016 Bonds.

The tables below set forth certain details with respect to the Refunded Debt.*

Rural Development Bond

Maturity	Par Amount	Interest Rate	Call Price
2016 – 2042	$1,111,404.08	4.375%	100%

State Loan

Maturity	Par Amount	Interest Rate	Call Price
2017 – 2031	$1,646,585.80	1.500%	100%

*Preliminary, subject to change

ESTIMATED SOURCES AND USES OF FUNDS

Sources	
Par Amount	$_________
Original Issue Premium (Discount)	_________
Total Sources	$_________
Uses	
Deposit to Construction Fund	$_________
Redemption of Refunded Debt	_________
Costs of Issuance(1)	_________
Total Uses	$_________

(1) Includes underwriting discount, financial advisory and legal fees and expenses, and miscellaneous costs of issuance.

LEGAL MATTERS

LITIGATION

There are not now pending, nor to the knowledge of the District are there threatened, any legal proceedings restraining, enjoining, or adversely affecting the issuance or delivery of the 2016 Bonds, the fixing or collecting of rates and charges for the services of the System, to the pledge of the Net Revenues, the proceedings and authority under which the 2016 Bonds are to be issued, which affect in any way the validity of the 2016 Bonds or which in any manner affect or call into question the right of the District to operate the System.

The District, like other similar public bodies, is subject to a variety of lawsuits and proceedings arising in the ordinary conduct of its affairs. After reviewing the current status of all pending and threatened litigation involving the System with Robertson Overbey, as District Counsel, the District believes that, while the outcome of such litigation and proceedings cannot be predicted, the final resolution of these pending and threatened lawsuits, proceedings and claims against the District and its officials in such capacity are not expected to have a material adverse effect upon the financial position or results of operations of the System after taking into consideration the District's insurance and self-insurance arrangements.

TAX MATTERS

Federal

General. Robertson Overbey, Knoxville, Tennessee, is Bond Counsel for the 2016 Bonds. Their opinion under existing law, relying on certain statements by the District and assuming compliance by the District with certain covenants, is that interest on the 2016 Bonds:

- is excluded from a bondholder's federal gross income under the Internal Revenue Code of 1986, as amended (the “Code”),
- is not a preference item for a bondholder under the federal alternative minimum tax, and
- is included in the adjusted current earnings of a corporation under the federal corporate alternative minimum tax.

The Code imposes requirements on the 2016 Bonds that the District must continue to meet after the 2016 Bonds are issued. These requirements generally involve the way that Bond proceeds must be invested and ultimately used. If the District does not meet these requirements, it is possible that a bondholder may have to include interest on the 2016 Bonds in its federal gross income on a retroactive basis to the date of issue. The District has covenanted to do everything necessary to meet these requirements of the Code.

A bondholder who is a particular kind of taxpayer may also have additional tax consequences from owning the 2016 Bonds. This is possible if a bondholder is:

- an S corporation,
- a United States branch of a foreign corporation,
- a financial institution,
- a property and casualty or a life insurance company,
- an individual receiving Social Security or railroad retirement benefits,
- an individual claiming the earned income credit or
- a borrower of money to purchase or carry the 2016 Bonds.

If a bondholder is in any of these categories, it should consult its tax advisor.

Bond Counsel is not responsible for updating its opinion in the future. It is possible that future events or changes in applicable law could change the tax treatment of the interest on the 2016 Bonds or affect the market price of the 2016 Bonds. See also "Changes in Federal and State Law" below in this heading.

Bond Counsel expresses no opinion on the effect of any action taken or not taken in reliance upon an opinion of other counsel on the federal income tax treatment of interest on the 2016 Bonds, or under State, local or foreign tax law.

Bond Premium. If a bondholder purchases a 2016 Bond for a price that is more than the principal amount, generally the excess is "bond premium" on that 2016 Bond. The tax accounting treatment of bond premium is complex. It is amortized over time and as it is amortized a bondholder's tax basis in that 2016 Bond will be reduced. The holder of a 2016 Bond that is callable before its stated maturity date may be required to amortize the premium over a shorter period, resulting in a lower yield on such 2016 Bonds. A bondholder in certain circumstances may realize a taxable gain upon the sale of a 2016 Bond with bond premium, even though the 2016 Bond is sold for an amount less than or equal to the owner's original cost. If a bondholder owns any 2016 Bonds with bond premium, it should consult its tax advisor regarding the tax accounting treatment of bond premium.

Original Issue Discount. A 2016 Bond will have "original issue discount" if the price paid by the original purchaser of such 2016 Bond is less than the principal amount of such 2016 Bond. Bond Counsel's opinion is that any original issue discount on these 2016 Bonds as it accrues is excluded from a bondholder's federal gross income under the Internal Revenue Code. The tax accounting treatment of original issue discount is complex. It accrues on an actuarial basis and as it accrues a bondholder's tax basis in these 2016 Bonds will be increased. If a bondholder owns one of these 2016 Bonds, it should consult its tax advisor regarding the tax treatment of original issue discount.

Information Reporting and Backup Withholding. Information reporting requirements apply to interest on tax-exempt obligations, including the 2016 Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with a Form W-9, "Request for Taxpayer Identification Number and Certification," or if the recipient is one of a limited class of exempt recipients. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to "backup withholding," which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a "payor" generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing a 2016 Bond through a brokerage account has executed a Form W-9 in connection with the establishment of such account, as generally can be expected, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the 2016 Bonds from gross income for Federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner's Federal income tax once the required information is furnished to the Internal Revenue Service.

State Taxes

Under existing law, the 2016 Bonds and the income therefrom are exempt from all present state, county and municipal taxes in Tennessee except (a) Tennessee excise taxes on interest on the 2016 Bonds during the period the 2016 Bonds are held or beneficially owned by any organization or entity, or other than a sole proprietorship or general partnership doing business in the State of Tennessee and (b) Tennessee franchise taxes by reason of the inclusion of the book value of the 2016 Bonds in the Tennessee franchise tax base of any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee.

Changes in Federal and State Tax Law

From time to time, there are presidential proposals, proposals of various federal committees, and legislative proposals in the Congress and in the states that, if enacted, could alter or amend the federal and state tax matters referred to herein or adversely affect the marketability or market value of the 2016 Bonds or otherwise prevent holders of the 2016 Bonds from realizing the full benefit of the tax exemption of interest on the 2016 Bonds. Further, such proposals may impact the marketability or market value of the 2016 Bonds simply by being proposed. It cannot be predicted whether or in what form any such proposal might be enacted or whether if enacted it would apply to bonds issued prior to enactment. In addition, regulatory actions are from time to time announced or proposed and litigation is threatened or commenced which, if implemented or concluded in a particular manner, could adversely affect the market value, marketability or tax status of the 2016 Bonds. It cannot be predicted whether any such regulatory action will be implemented, how any particular litigation or judicial action will be resolved, or whether the 2016 Bonds would be impacted thereby. Purchasers of the 2016 Bonds should consult their tax advisors regarding any pending or proposed legislation, regulatory initiatives or litigation. The opinions expressed by Bond Counsel are based upon existing legislation and regulations as interpreted by relevant judicial and regulatory authorities as of the date of issuance and delivery of the 2016 Bonds, and Bond Counsel has expressed no opinion as of any date subsequent thereto or with respect to any proposed or pending legislation, regulatory initiatives or litigation.

Prospective purchasers of the 2016 Bonds should consult their own tax advisors regarding the foregoing matters.

CLOSING CERTIFICATES

Upon delivery of the 2016 Bonds, the District will execute in a form satisfactory to Bond Counsel, certain closing certificates including the following: (i) a certificate as to the *Official Statement*, in final form, signed by the District's President and Secretary acting in his official capacity to the effect that to the best of their knowledge and belief, and after reasonable investigation, (a) neither the *Official Statement*, in final form, nor any amendment or supplement thereto, contains any untrue statements of material fact or omits to state any material fact necessary to make statements therein, in light of the circumstances in which they are made, misleading, (b) since the date of the *Official Statement*, in final form, no event has occurred which should have been set forth in such a memo or supplement, (c) there has been no material adverse change in the operation or the affairs of the District since the date of the *Official Statement,* in final form, and having attached thereto a copy of the *Official Statement*, in final form, and (d) there is no litigation of any nature pending or threatened seeking to restrain the issuance, sale, execution and delivery of the 2016 Bonds, or contesting the validity of the 2016 Bonds or any proceeding taken pursuant to which the 2016 Bonds were authorized; (ii) certificates as to the delivery and payment, signed by the District's President and Secretary acting in their official capacity, evidencing delivery of and payment for the 2016 Bonds; (iii) a signature identification and incumbency certificate, signed by the District's President and Secretary acting in their official capacities certifying as to the due execution of the 2016 Bonds; and, (iv) a Continuing Disclosure Certificate regarding certain covenants of the District concerning the preparation and distribution of certain annual financial information and notification of certain events.

APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters relating to the authorization and the validity of the 2016 Bonds are subject to the approval of Robertson Overbey, Knoxville, Tennessee, Bond Counsel and District Counsel. Robertson Overbey has not prepared the *Preliminary Official Statement* or the *Official Statement*, in final form, or verified their accuracy, completeness or fairness. Accordingly, Robertson Overbey expresses no opinion of any kind concerning the *Preliminary Official Statement* or *Official Statement*, in final form, except for the information in the sections entitled "LEGAL MATTERS – Litigation" and "– Tax Matters" and certain limited general information regarding the District. The opinion of Robertson Overbey, in its capacity as Bond Counsel, will be limited to matters relating to authorization and validity of the 2016 Bonds and to the tax-exemption of interest on the 2016 Bonds under present federal income tax laws, both as described above. This legal opinion will be delivered with the 2016 Bonds and the form of the opinion is included in Appendix A. For additional information, see the section entitled "MISCELLANEOUS – Underwriter", "- Additional Information" and "- Continuing Disclosure."

MISCELLANEOUS

RATING

S&P Global Ratings ("S&P") has given the 2016 Bonds the rating of "AA+" (stable outlook).

There is no assurance that such rating will continue for any given period of time or that the rating may not be suspended, lowered or withdrawn entirely by S&P, if circumstances so warrant. Due to the ongoing uncertainty regarding the economy and debt of the United States of America, including, without limitation, the general economic conditions in the country, and other political and economic developments that may affect the financial condition of the United States government, the United States debt limit, and the bond ratings of the United States and its instrumentalities, obligations issued by state and local governments, such as the 2016 Bonds, could be subject to a rating downgrade. Additionally, if a significant default or other financial crisis should occur in the affairs of the United States or of any of its agencies or political subdivisions, then such event could also adversely affect the market for and ratings, liquidity, and market value of outstanding debt obligations, including the 2016 Bonds. Any such downward change in or withdrawal of the rating may have an adverse effect on the secondary market price of the 2016 Bonds.

The rating reflects only the views of S&P and any explanation of the significance of such rating should be obtained from S&P.

UNDERWRITING

Pursuant to a Bond Purchase Agreement dated December __, 2016 (the "Bond Purchase Agreement"), between the District and Merrill Lynch, Pierce, Fenner & Smith Incorporated (the "Underwriter"), the Underwriter has agreed to purchase the 2016 Bonds at an aggregate price of $_________ (consisting of the par amount of the 2016 Bonds, less an underwriter's discount of $________ and plus a net original issue premium of $________) or _________% of par. The obligation of the Underwriter to purchase the 2016 Bonds is subject to certain conditions contained in the Bond Purchase Agreement.

The Underwriter may offer the 2016 Bonds to the public initially at the offering prices set forth on the cover page hereof, which price may subsequently be changed without prior notice. The Underwriter may offer and sell the 2016 Bonds to certain dealers (including dealers depositing Bonds into investment trusts) at prices lower than the public offering prices. In connection with this offering, the Underwriter may over allot or effect transactions which stabilize or maintain the market price of the 2016 Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Underwriter and its affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Under certain circumstances, the Underwriter and its affiliates may have certain creditor and/or other rights against the District in connection with such activities. In the various course of their various business activities, the Underwriter and its affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the District (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the District. The Underwriter and its respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments. See "MISCELLANEOUS – ADDITIONAL DEBT" herein for information regarding the District's loan agreement funded with proceeds of certain PBA Bonds to be purchased by Specialized Lending, LLC, a subsidiary of Bank of America, N.A., which is an affiliate of the Underwriter.

FINANCIAL ADVISOR; RELATED PARTIES; OTHER

Financial Advisor. Cumberland Securities Company, Inc., Knoxville, Tennessee, has served as financial advisor (the "Financial Advisor") to the District for purposes of assisting with the development and implementation of a bond structure in connection with the issuance of the 2016 Bonds. The Financial Advisor has not been engaged by the District to compile, create, or interpret any information in the *Preliminary Official Statement* and *Official Statement* relating to the District, including without limitation any of the District's financial and operating data, whether historical or projected. Any information contained in the *Preliminary Official Statement* and *Official Statement* concerning the District, any of its affiliated or contractors and any outside parties has not been independently verified by the Financial Advisor, and inclusion of such information is not, and should not be construed as, a representation by the Financial Advisor as to its accuracy or completeness or otherwise. The Financial Advisor is not a public accounting firm and has not been engaged by the District to review or audit any information in the *Preliminary Official Statement* and *Official Statement* in accordance with accounting standards.

Regions Bank. Regions Bank (the "Bank") is a wholly-owned subsidiary of Regions Financial Corporation. The Bank provides, among other services, commercial banking, investments and corporate trust services to private parties and to State and local jurisdictions, including serving as registration, paying agent, filing agent or escrow agent related to debt offerings. The Bank will receive compensation for its role in serving as Registration Agent for the 2016 Bonds. In instances where the Bank serves the District in other normal commercial banking capacities, it will be compensated separately for such services.

Official Statements. Certain information relative to the location, economy and finances of the Issuer is found in the *Preliminary Official Statement*, in final form and the *Official Statement*, in final form. Except where otherwise indicated, all information contained in this Official Statement has been provided by the District. The information set forth herein has been obtained by the District from sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of, the Financial Advisor or the Underwriter. The information contained herein is subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create an implication that there has been no change in the affairs of the District, or the other matters described herein since the date hereof or the earlier dates set forth herein as of which certain information contained herein is given.

Bond Counsel. Robertson Overbey has not represented the Bank on legal matters in the past; however, it may do so in the future.

Other. Among other services, Cumberland Securities Company, Inc. and the Bank may also assist local jurisdictions in the investment of idle funds and may serve in various other capacities, including Cumberland Securities Company's role as serving as the District's Dissemination Agent. If the District chooses to use one or more of these other services provided by Cumberland Securities Company, Inc. and/or the Bank, then Cumberland Securities Company, Inc. and/or the Bank may be entitled to separate compensation for the performance of such services.

DEBT RECORD

There is no record of default or non-payment of any legal obligations of the District.

ADDITIONAL DEBT

As hereinabove provided, the District intends to issue additional financing for the purpose of funding the costs of the Projects. The District's obligations under the additional financing will be secured on a parity and equality of lien with the 2016 Bonds and the Outstanding Parity Obligations, by a pledge of the Net Revenues of the System and the statutory mortgage lien described herein. If the District determines that proceeds from its Water and Sewer Revenue Bonds, Series 2015, its 2016 Bonds and its PBA Loan described below are not sufficient to finance the costs of the Projects, the District may determine to issue future debt to provide for the remaining financing of the Projects.

PBA Bond Description

As hereinabove provided, on or about the date of issuance of the 2016 Bonds, the District intends to borrow the PBA Loan from the Authority in an amount of up to $25,000,000. The PBA Loan will be funded with proceeds of the PBA Bonds. The PBA Bonds are not being offered pursuant to this Official Statement, and no detailed information is being provided herein regarding the PBA Bonds.

It is expected that the PBA Bonds will be purchased by Specialized Lending, LLC (the "PBA Bond Purchaser"), a subsidiary of Bank of America, N.A. (which is an affiliate of the Underwriter), and in connection with such purchase that the District and the PBA Bond Purchaser will enter into an Index Rate Agreement (the "PBA Index Rate Agreement").

The PBA Bonds will be limited obligations of the Authority, payable solely from money to be received from the District pursuant to the terms of the PBA Loan Agreement. The District's repayment terms and obligations under the PBA Loan Agreement will match the Authority's repayment terms and obligations with respect to the PBA Bonds. The Authority will assign its rights under the PBA Loan Agreement (except for certain reserved rights) to the PBA Bond Purchaser as security for the repayment of the PBA Bonds.

The PBA Bonds will be purchased by the PBA Bond Purchaser for an initial holding period of five (5) years. During the initial holding period, the PBA Bonds and the PBA Loan Agreement are expected to bear interest at a variable rate equal to a percentage of one-month LIBOR plus a fixed credit spread.

Certain events with respect to the District, the PBA Loan Agreement and the PBA Bonds will constitute an "event of default" under the PBA Index Rate Agreement. Such events of default include:

(a) failure to pay principal, interest and the purchase price of the PBA Bonds, when due;

(b) failure to observe or perform any covenant or agreement contained in the PBA Index Rate Agreement, other than referred to in the foregoing subsection (a), for thirty (30) days after written notice thereof has been given to it;

(c) Moody's, S&P or Fitch shall have downgraded the District's long-term unenhanced rating of any indebtedness of the District to which the Net Revenues of the District are pledged to below Baa3 (or its equivalent) or BBB- (or its equivalent), or suspended or withdrawn its rating of the same;

(d) any representation or warranty of the District made in the PBA Index Rate Agreement, any certificate, report, financial statement or other instrument furnished in connection with the PBA Index Rate Agreement proves to have been untrue or incomplete in any material respect when made;

(e) an "Event of Default" shall have occurred under the PBA Loan Agreement;

(f) (i) the District fails to pay when due and payable, after giving effect to any applicable grace period, the principal of or interest on any indebtedness, including but not limited to payments due under interest rate swap agreements, to which the Net Revenues are pledged; or (ii) any other default or event of default occurs under the documents evidencing or securing indebtedness to which the Net Revenues are pledged and as a result thereof such indebtedness has been declared immediately due and payable in full;

(g) the District fails to pay when due and payable (i) the principal of or interest on any indebtedness the outstanding principal amount of which as of the date of such failure is in excess of $2,500,000, or (ii) any payments under an interest rate swap agreement provided the aggregate amount thereof then due and payable is in excess of $2,500,000;

(h) the occurrence of a final, non-appealable judgment against the District requiring payment by the District of more than $2,500,000 (and not relating to indebtedness described in subsections (f) or (g) above which shall be governed by such subsections) if such judgment is not satisfied within a period of 60 days from the date on which such judgment became final and non-appealable;

(i) the State of Tennessee or any other governmental authority having jurisdiction over the District imposes a debt moratorium, debt restructuring, or other event that results in a restriction on repayment when due and payable of the principal of or interest on the PBA Bonds;

(j) the District shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due, or shall take any corporate action to authorize any of the foregoing;

(k) an involuntary case or other proceeding shall be commenced against the District seeking liquidation, reorganization or other relief with respect to it or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, and such involuntary case or other proceeding shall remain undismissed and unstayed for a period of 90 days; or an order for relief shall be entered against the District under the federal bankruptcy laws as now or hereafter in effect; or

(l) the District shall contest the validity or enforceability of any provision of the PBA Index Rate Agreement.

The PBA Bond Purchaser's remedies following an "Event of Default" described above include the following:

(1) If an Event of Default occurs and is continuing, the PBA Bond Purchaser may, in its sole discretion, but shall not be obligated to, require the acceleration of payment of all PBA Bonds and interest accrued thereon and/or charge interest on the PBA Bonds or on any amounts due hereunder at a default rate.

(2) Notwithstanding the foregoing remedy in (1) above, the PBA Bond Purchaser is required to give the Authority and the District at least 180 days prior written notice of an acceleration if such acceleration is the result of an Event of Default specified above under (b), (d) or (e); provided, however, that the foregoing limitation does not apply with respect to any other Event of Default specified above notwithstanding that such other Event of Default may also constitute an Event of Default specified in (b), (d) or (e).

(3) Notwithstanding the foregoing remedy in (1) above, the PBA Bond Purchaser's acceleration remedy for an Event of Default stated under (f)(i) and (g)(i) above shall only apply and be available to the PBA Bond Purchaser from and after the earlier of (A) the date the failure to pay referenced in (f)(i) and (g)(i), as applicable, shall have continued for a period of thirty (30) days or (B) the date the indebtedness is declared immediately due and payable in full as a result of such failure to pay.

Risk Factors

The PBA Bond Purchaser has agreed to hold the PBA Bonds for an initial holding period of five (5) years, at which time the PBA Bonds will be subject to mandatory tender and purchase by the District unless the PBA Bond Purchaser agrees to hold the PBA Bonds for an additional period or the PBA Bonds are able to be remarketed to a new holder.

The PBA Bonds expose the District to certain risks, including:

- "Interest rate risk" – the risk that the interest rate on the variable rate bonds will increase;
- "Bank renewal risk" – the risk that ownership of the PBA Bonds will not be able to be renewed or replaced on reasonable terms at the end of the PBA Bond Purchaser's holding period; and
- "Acceleration risk" – the risk that certain defaults with respect to PBA Bonds and under the PBA Index Rate Agreement may lead to an acceleration of the PBA Bonds.

The PBA Bonds will bear interest at a rate determined based on a LIBOR index plus a spread. The interest rate is subject to market rate fluctuation and the maximum interest rate is not capped other than by applicable usury laws. Additionally, such rates are subject to increase if the corporate tax rate changes, if interest on the PBA Bonds becomes taxable for purposes of federal income taxation, if there are certain changes in law that increase the PBA Bond Purchaser's costs of holding the PBA and if there is an event of default under the PBA Loan Agreement or the PBA Index Rate Agreement.

To manage bank renewal risk, the District will seek to extend the holding period or find a new holder as far in advance as is reasonable. There is no assurance, however, that the District will be able to extend the holding period or obtain bank facilities for the PBA Bonds on reasonable terms in the future.

CONTINUING DISCLOSURE

The District will at the time the 2016 Bonds are delivered execute a Continuing Disclosure Certificate under which it will covenant for the benefit of holders and beneficial owners of the 2016 Bonds to provide certain financial information and operating data relating to the District by not later than twelve months after the end of each fiscal year commencing with the fiscal year ending June 30, 2017 (the "Annual Report"), and to provide notice of the occurrence of certain significant events not later than ten business days after the occurrence of the events and timely notice of failure to provide any required financial information of the District. The Annual Report (and audited financial statements if filed separately) and notices described above will be filed by the District with the Municipal Securities Rulemaking Board ("MSRB") at www.emma.msrb.org and with any State Information Depository which may be established in Tennessee (the "SID"). The specific nature of the information to be contained in the Annual Report or the notices of events is summarized below. These covenants have been made in order to assist the Underwriters in complying with Securities Exchange Act Rule 15c2-12(b), as it may be amended from time to time (the "Rule 15c2-12"). The District is in compliance with the undertakings required under the Rule.

Five-Year History of Filing. While it is believed that all appropriate filings were made with respect to the ratings of the District's outstanding bond issues, some of which were insured by the various municipal bond insurance companies, no absolute assurance can be made that all such rating changes of the bonds or various insurance companies which insured some transaction were made or made in a timely manner as required by Rule 15c2-12. With the exception of the foregoing, for the past five years, the

District has complied in all material respects with its existing continuing disclosure agreements in accordance with Rule 15c2-12.

Content of Annual Report. The District's Annual Report shall contain or incorporate by reference the General Purpose Financial Statements of the District for the fiscal year, prepared in accordance with generally accepted accounting principles; provided, however, if the District's audited financial statements are not available by the time the Annual Report is required to be filed, the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained herein, and the audited financial statements shall be filed when available. The Annual Report shall also include in a similar format the following information included in Appendix B.

1. The ten largest customers of the District;

2. Water and Sewer Rates of the District;

3. Summary of bonded indebtedness as of the end of such fiscal year;

4. Summary of Bonded Debt Service Requirements as of the end of such fiscal year;

5. Summary of Revenues, Expenditures and Changes in Fund Balances for the fiscal year; and

6. Historical Debt Service Coverage on Bonds - as of the end of such fiscal year.

Any or all of the items listed above may be incorporated by reference from other documents, including *Official Statements* in final form for debt issues of the District, which have been submitted to each of the MSRB or the U.S. Securities and Exchange Commission. If the document incorporated by reference is an *Official Statement*, in final form, it will be available from the MSRB. The Distrcit shall clearly identify each such other document so incorporated by reference.

Reporting of Significant Events. The District will file notice regarding Listed Events with the MSRB and the SID, if any, as follows:

1. Upon the occurrence of a Listed Event (as defined in (3) below), the District shall in a timely manner, but in no event more than ten (10) business days after the occurrence of such event, file a notice of such occurrence with the MSRB and SID, if any.

2. For Listed Events where notice is only required upon a determination that such event would be material under applicable Federal securities laws, the District shall determine the materiality of such event as soon as possible after learning of its occurrence.

3. The following are the Listed Events:

    a. Principal and interest payment delinquencies;

    b. Non-payment related defaults, if material;

    c. Unscheduled draws on debt service reserves reflecting financial difficulties;

    d. Unscheduled draws on credit enhancements reflecting financial difficulties;

e. Substitution of credit or liquidity providers, or their failure to perform;

f. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the 2016 Bonds or other material events affecting the tax status of the 2016 Bonds;

g. Modifications to rights of Bondholders, if material;

h. Bond calls, if material, and tender offers;

i. Defeasances;

j. Release, substitution, or sale of property securing repayment of the securities, if material;

k. Rating changes;

l. Bankruptcy, insolvency, receivership or similar event of the obligated person;

m. The consummation of a merger, consolidation or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and

n. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

Termination of Reporting Obligation. The District's obligations under the Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the 2016 Bonds.

Amendment; Waiver. Notwithstanding any other provision of the Disclosure Certificate, the District may amend the Disclosure Certificate, and any provision of the Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions concerning the Annual Report and Reporting of Significant Events, it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the 2016 Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the 2016 Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the 2016 Bonds, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or beneficial owners of the 2016 Bonds.

In the event of any amendment or waiver of a provision of the Disclosure Certificate, the District shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or, in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the District. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given, and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Default. In the event of a failure of the District to comply with any provision of the Disclosure Certificate, any Bondholder or any beneficial owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the District to comply with its obligations under the Disclosure Certificate. A default under the Disclosure Certificate shall not be deemed an event of default, if any, under the Resolution, and the sole remedy under the Disclosure Certificate in the event of any failure of the District to comply with the Disclosure Certificate shall be an action to compel performance.

ADDITIONAL INFORMATION

Use of the words "shall," "must," or "will" in the *Preliminary Official Statement* and *Official Statement* in summaries of documents or laws to describe future events or continuing obligations is not intended as a representation that such event will occur or obligation will be fulfilled but only that the document or law contemplates or requires such event to occur or obligation to be fulfilled.

Any statements made in the *Preliminary Official Statement* and *Official Statement* involving estimates or matters of opinion, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates or matters of opinion will be realized. Neither the *Preliminary Official Statement* and *Official Statement* nor any statement which may have been made orally or in writing is to be construed as a contract with the owners of the 2016 Bonds.

The references, excerpts and summaries contained herein of certain provisions of the laws of the State of Tennessee, and any documents referred to herein, do not purport to be complete statements of the provisions of such laws or documents, and reference should be made to the complete provisions thereof for a full and complete statement of all matters of fact relating to the 2016 Bonds, the security for the payment of the 2016 Bonds, and the rights of the holders thereof.

The *Preliminary Official Statement* and *Official Statement*, in final form, and any advertisement of the 2016 Bonds, is not to be construed as a contract or agreement between the District and the purchasers of any of the 2016 Bonds. Any statements or information printed in this *Preliminary Official Statement* or the *Official Statement*, in final form, involving matters of opinions or of estimates, whether or not expressly so identified, is intended merely as such and not as representation of fact.

The District has deemed this *Preliminary Official Statement* as “final” as of its date within the meaning of Rule 15c2-12 except for the omission of certain pricing information allowed to be omitted pursuant to Rule 15c2-12.

CERTIFICATION

On behalf of the District, we hereby certify that to the best of our knowledge and belief, the information contained herein as of this date is true and correct in all material respects, and does not contain an untrue statement of material fact or omit to state a material fact required to be stated where necessary to make the statement made, in light of the circumstance under which they were made, not misleading.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

/s/ ______________________________
President
Board of Commissioners

ATTEST:

/s/ ______________________________
Secretary
Board of Commissioners

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APPENDIX A

PROPOSED FORM OF LEGAL OPINION

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[Form of Bond Counsel Opinion]

December 22, 2016

West Knox Utility District
c/o Board of Commissioners
2328 Lovell Road
P.O. Box 51370
Knoxville, Tennessee 37950-1370

Ladies and Gentlemen:

We have acted as bond counsel in connection with the issuance by the West Knox Utility District of Knox County, Tennessee (the "Issuer") of $[26,285,000] Water and Sewer Revenue Improvement and Refunding Bonds, Series 2016, dated December 22, 2016 (the "Bonds"). In such capacity, we have examined the law and such certified proceedings and other papers as we deemed necessary to render this opinion.

As to questions of fact material to our opinion, we have relied upon the certified proceedings and other certifications of public officials and others furnished to us without undertaking to verify such facts by independent investigation.

Based on the foregoing, we are of the opinion, as of the date hereof, as follows:

1. The Bonds have been duly authorized, executed and issued in accordance with the constitution and laws of the State of Tennessee and are valid and binding obligations of the Issuer.

2. The resolution of the Board of Commissioners of the Issuer authorizing the Bonds has been duly and lawfully adopted, is in full force and effect and is a valid and binding agreement of the Issuer enforceable in accordance with its terms.

3. The Bonds are valid and binding limited obligations of the Issuer enforceable in accordance with their terms, payable solely from the Net Revenues, all in the manner and to the extent provided in the Bond Resolution.

4. The Bond Resolution creates a valid lien upon the Net Revenues for the security of the Bonds on a parity with the Issuer's Obligations pursuant to a Loan Agreement between the Issuer and the Public Building Authority of Sevier County, Tennessee dated July 1, 2000 which includes an interest rate swap agreement between the Issuer and Raymond James Financial Products, Inc. dated September 22, 2009, a Loan Agreement between the Issuer and the Public Building Authority of Sevier County, Tennessee dated August 28, 2009, the Taxable Water and Sewer Revenue Bonds, Series 2010 (Federally

Taxable – Build America Bonds – Direct Subsidy), dated November 30, 2010 and the Water and Sewer Revenue Bonds, Series 2015, dated December 22, 2015. The Issuer has reserved the right to issue other Parity Obligations in the future on parity with the Bonds.

5. Interest on the Bonds (including any original issue discount properly allocable to an owner thereof) is excluded from a bondholder's gross income for federal income tax purposes, is not an item of tax preference for purposes of the federal alternative minimum tax, and is included in the adjusted current earnings of a corporation under the federal corporate alternative minimum tax. The opinion set forth in the preceding sentence is subject to the condition that the Issuer comply with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, or continue to be, excluded from gross income for federal income tax purposes. The Issuer has covenanted to comply with all such requirements. Failure to comply with certain of such requirements could cause interest on the Bonds to be so included in gross income retroactive to the date of issuance of the Bonds. Except as set forth in this Paragraph 5, we express no other opinion regarding other federal tax consequences arising with respect to the Bonds.

6. Under existing law, the Bonds and the income therefrom are exempt from all present state, county and municipal taxation in Tennessee except (a) Tennessee excise taxes on all or a portion of the interest on any of the Bonds during the period such Bonds are held or beneficially owned by any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee and (b) Tennessee franchise taxes by reason of the inclusion of the book value of the Bonds in the Tennessee franchise tax base or any organization or entity, other than a sole proprietorship or general partnership, doing business in the State of Tennessee.

It is to be understood that the rights of the owners of the Bonds and the enforceability of the Bonds and the resolution authorizing the Bonds may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights generally and by equitable principles, whether considered at law or in equity.

We express no opinion herein as to the accuracy, adequacy or completeness of the Official Statement relating to the Bonds.

This opinion is given as of the date hereof and we assume no obligation to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or changes in law that may hereafter occur.

Yours very truly,

Robertson Overbey

APPENDIX B

SUPPLEMENTAL INFORMATION STATEMENT

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GENERAL INFORMATION

LOCATION

The area presently served by the West Knox Utility District (the "District") is located in the northwest portion of Knox County in East Tennessee between the cities of Knoxville and Oak Ridge. The District's service area of 72 square miles is bordered on the east by the City of Knoxville, on the south by Interstate Highways 40 and 75 and on the north and west by Anderson and Loudon Counties, respectively. The north and west boundaries of the District are formed by Melton Hill Lake, which was created by the impoundment of the Clinch River by the Melton Hill Dam.

ORGANIZATION

The District was incorporated as a municipal corporation and the current boundaries established on October 18, 1954 by Order of the County Executive (formerly County Judge) of Knox County, Tennessee pursuant to provisions of the District Act, which provides that such an incorporated municipal corporation shall exist in perpetuity and possess the powers set forth in the District Act; however, such Order has been and may be from time to time amended.

The District Act provides that, as long as the District continues to furnish any of the services which it is authorized to furnish, it shall continue to be the sole public corporation having the power to furnish such services within the boundaries of the District, and no other person, firm or corporation shall furnish or attempt to furnish any of such services in the District, unless and until it shall have been established that the public convenience and necessity require other or additional services.

POWERS

The District Act provides that the District is empowered, among other things, to conduct, operate and maintain a system or systems for the furnishing of water, sewer and sewage disposal services. To carry out such purposes, the District has the power and authority to acquire, construct, reconstruct, improve, better, extend, consolidate, maintain and operate such system or systems within or without the District, and to purchase from, furnish, deliver and sell to any municipality, the State, any public institution and the public, generally, any of its services. The District has the power of eminent domain and has the power to issue its negotiable bonds for the purpose of construction, acquiring, reconstructing, improving, bettering or extending any of its facilities or system or systems and to pledge to the payment of such negotiable bonds all or any part of the revenues derived from the operation of such facilities, system or systems or combination thereof. The District has no power to levy or collect taxes.

GOVERNING BODY

All corporate powers of the District are vested in and exercised by the Board of Commissioners (the "Board"). The Board consists of three members, two who are residents of the District and one who does own property within the District. Each member is appointed by the County Mayor of Knox County and serves staggered four-year terms. Not later than thirty days prior to the expiration of the term of office of any incumbent commissioner, the Board, or its remaining members, select three nominees to fill such office, in full accordance with any residential requirements that may apply to the office vacated, or to be vacated, and under the seal of the Board certifies such list of nominees in order of preference, to the County Mayor of Knox County. Within twenty-one days of such certification, the County Mayor may enter an order, either appointing one of the nominees or rejecting the entire list, or may refrain from taking any action, in which event the first name on the list of nominees is deemed appointed by operation of law. Upon rejection of the entire list of nominees by the County Mayor, the Board continues to submit new non-identical lists of three nominees to the County Mayor within thirty days of each such rejection until such procedure results in the vacancy being filled. Each commissioner must be either a resident of, or the owner of real property in the District.

Pursuant to the District Act, the Board acts by a majority of its members and must meet at least once each quarter. The Board is authorized by the District Act, among other things, to exercise by vote, ordinance or resolution all of the general and specific powers of the District, to make all necessary rules, regulations and bylaws for the management and conduct of the affairs of the District and to issue bonds of the District by resolution of the Board.

The commissioners are insured by the District's group medical insurance coverage, which is authorized by the District Act. The District Act also authorizes each commissioner to receive per diem payments for not more than twelve meetings of the Board in any calendar year at rates not greater than three hundred fifty dollars per meeting.

THE BOARD OF COMMISSIONERS

The following is a list of the current members of the Board of Commissioners:

Name and Occupation	First Appointed Commissioner	Current Term Expires
Daniel H. Hurst, President Director of Gov. Services, Strata Environmental Knoxville, Tennessee	January 2002	Dec. 31, 2017
Christopher P. Harrison, Vice President Attorney, Long Ragsdale & Waters PC Knoxville, Tennessee	December 2015	Dec. 31, 2019
Ruth A. Milsaps, Secretary-Treasurer Milsaps Bus Lines Knoxville, Tennessee	March 2005	Dec 31, 2016

As provided above, the term of Commissioner Milsaps expires on December 31, 2016. The Board has provided to the County Mayor a certified list of three nominees to serve as Commissioner upon the expiration of Commissioner Milsaps's term, which list of nominees includes Commissioner Milsaps who may be reappointed by the County Mayor. In accordance with the rules provided above, the County Mayor is expected to act on the certified list of nominees within twenty-one days of its receipt.

Administrative Personnel

The General Manager of the District serves under an employment contract, and is responsible for the appointment and selection of personnel of the District. Drexel A. Heidel, P.E., has been the General Manager of the District since January 1, 2012. Mr. Heidel began his career with the District in October 1993 and served as the Assistant Manager since November, 2000. Mr. Heidel is a member of the American Water Works Association, Water Environment Federation and a board member of Tennessee Association of Utility Districts. He is an active member of the Utility Management Federation of Knox County. He holds a Grade III Wastewater Operator certification and is a registered engineer in the State of Tennessee.

The Assistant Manager of the District serves under the direction of the General Manager. He provides administrative, management and operational support in day-to-day business of the District. Wayne Hastings, P.E. has served in the capacity of Assistant Manager since January 2012. He began working in the District in November 2005 as the Chief Engineer. He is a registered engineer in the State of Tennessee. He is a member of the American Water Works Association, Water Environment Federation and the Tennessee Association of Utility Districts. Mr. Hastings also serves on the Board of Tennessee 811.

The supervisory personnel responsible for the operation of the District include the following:

Name and Position	Year Employed
Jason Headrick, Superintendent of Water Plants State of Tennessee, Water Operators License, Class IV	2016
Gary Chesney, Superintendent of Wastewater Plant State of Tennessee, Wastewater Operators License, Class IV	1999
Doug Alderman, Superintendent of Water State of Tennessee, Distribution License, Class II	1992
Steve Buchanan, Superintendent of Wastewater State of Tennessee, Collection License, Class II and Distribution License Class II	2003

EMPLOYEES

The District has 71 full-time employees.

The turnover in the District's work force has averaged less than five employees per year over the last five years. The tenure of District employees presently averages approximately 20 years.

At the present time, no employees of the District are represented by unions. Officials of the District are unaware of any attempts by any union to organize employees of the District, and the District characterizes its relationship with its employees as satisfactory.

REGULATION

State and Local Regulation. The District is required by law to establish and maintain a set of rules and regulations regarding an adjustment of all complaints which may be made to the District concerning the availability of utility services to persons in need thereof, the quality of service performed, the adjustment of bills and all other complaints of any nature, with provisions relating to the manner of resolution of individual complaints, the types of complaints which may be resolved by salaried employees of the District, and those which may be resolved only by the Board. Such rules must be posted or otherwise available in the offices of the District for inspection by customers and members of the public. The District Act provides that the District may not contractually bind itself to issue bonds that would require a rate increase until the users of the system are given notice thereof. The District has complied with this requirement with respect to all current water and sewer user rates by publishing notice of same on all customers' bills. Pursuant to the District Act, rates charged and services provided by the District may be reviewed by the Utility Management Review Board.

Upon the filing with the Review Board of a petition signed by a least ten percent of the users within the authorized area of the District, the Review Board has authority to review the rates and services of the District (see the discussion under "THE DISTRICT" - Regulation - Review Board). In addition, the District is required to have its books and records audited annually by a certified public accountant, a public accountant, or by the Division of Local Government Audit of the Comptroller of the Treasury of the State. The Comptroller of the Treasury of the State, through the Division of Local Government Audit, makes a determination as to whether the annual audit of the District has been prepared in accordance with generally accepted governmental auditing standards and whether the audits meet the minimum standards prescribed by the Comptroller. The Comptroller has promulgated rules and regulations to assure that the books and records of utility district are kept in accordance with generally accepted accounting procedures and that audit standards prescribed by the Comptroller are met. The District must file a copy of the audit with the State Comptroller and with the County Mayor of Knox County.

Rate Regulation. The District is required by the District Act to charge such rates as shall be sufficient to pay operation and maintenance expenses and to pay principal of and interest on all bond or notes secured by revenues of the System. The Board determines the rates paid by the District's customers. The District is required to publish within ninety days after the close of its fiscal year a statement showing the financial condition of the District and the earnings of the District. Any water and/or sewer user customer of the District may file with the Board a protest concerning the rates within thirty (30) days of the publication of the statement. The Board must then give notice of a hearing to determine the validity of the protest and whether the published rates are reasonable. After the Board makes its determination, the customer may seek review of the Board's action and the Review Board, as discussed below, with the right of judicial review by common law writ of certiorari to a court within the county of the District's principal office.

Review Board. In 1987, the State legislature established a utility management review board (the "Review Board") for the purpose of advising utility district boards of commissioners throughout the State in the area of utility management. The Review Board consists of nine (9) members consisting of the State Commissioner of Environment, the State Comptroller of the Treasury, and seven (7) members appointed by the Governor, three (3) of whom shall be experienced utility district managers, three (3) of whom shall be experienced utility district commissioners. The Review Board is given the power, among other things, to review any decision of any utility district relating to rate changes upon petition of any customer of the district, to compel the adoption of and adherence to rules and regulations for the adjustment of customer complaints, hear customer protests of rates or appeal from a hearing before the Board of Commissioners of the District, to oversee operations of a utility district that has experienced excessive water loss as determined by the Review Board, and to oversee operations of "financially distressed utility districts", including the power to compel rate increases sufficient to be in compliance with State law and all covenants with bondholders and compel consolidation with another utility. A "financially distressed utility district" is a district (i) which has failed to charge rates sufficient to pay the costs of operation and maintenance of the system, including depreciation and reserves therefore, as well as to pay all bonds and interest thereon secured by the revenues of the system, including reserves therefore, for a period of two (2) consecutive years, or (ii) which is in default on any outstanding indebtedness, or (iii) which has a retained earnings deficit. The Review Board may not take any action which would adversely impair the obligations of contract or the payment of outstanding bonds of the District. Any party to a proceeding before the Review Board may appeal to a local court seeking review of any action taken.

Licenses, Permits and Approval. In the opinions of the General Manager and Counsel to the District, the District has received all licenses, permits and approvals necessary for the operation of the System.

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THE SYSTEM

INTRODUCTION

The District provides services consisting of (i) the treatment and distribution of water to its customers through its Waterworks System and (ii) the collection, processing and disposal of sewage through its Sewer System. The District provides no other services to its customers.

WATERWORKS SYSTEM

Physical Plant. The District's Waterworks System was placed in operation in 1957, initially serving approximately 735 customers. The District's Frank J. Daugherty Treatment Plant was originally constructed in 1964 and expanded in 1968 to a capacity of 2.48 million gallons per day. The Daugherty Plant has recently been expanded to produce 8 million gallons per day using membrane technology. Construction was completed in December 2013. In 1976, the District constructed its Melton Hill Lake Treatment Plant. The plant has a treatment capacity of ten million gallons per day. The District currently supplies an average of approximately 5.9 million gallons per day of potable water. At present, the total treatment capacity of the system is 18 million gallons per day. Peak day demand of 8.4 MGD is considerably higher than the average daily demand.

Billing Units of the Waterworks System. The following table sets forth the average number of billing units served by the Waterworks System during each of the fiscal years indicated and the number and percentage of billing units served categorized by type of unit for the same periods.

Average Waterworks System Billing Units
(Fiscal Year Ended June 30)

Year	Residential	Commercial	Apartments	Motel/Hotel	Total
2007	18,694	610	2,583	637	22,524
2008	19,922	610	2,583	637	23,752
2009	21,667	787	2,584	637	25,675
2010	21,405	748	NA[1]	3,782	25,935
2011	20,474	839	NA[1]	4,055	25,368
2012	20,531	860	NA[1]	4,079	25,474
2013	20,787	871	NA[1]	4,079	25,737
2014	21,334	892	NA[1]	4,121	26,347
2015	21,847	893	NA[1]	3,399	26,139
2016	22,341	1,028	NA[1]	3,186	26,555

Source: Audited Financial Statements and the District.
[1] In 2010 the District combined Apartments with the Hotel/Motel/Multi-Space Customers

Source of Water; Water Treatment and Distribution Facilities. The District obtains water from Melton Hill Lake below Bull Run Creek in Anderson County, Tennessee. The intake at the Frank J. Dougherty Treatment Plant is powered by Clinton Utilities Board.

The District's distribution system consists of approximately 388.5 miles of supply lines.

SEWER SYSTEM

Physical Plant. The Sewer System serves portions of three major drainage areas in the District: the Beaver Creek area, the Ten Mile Creek area and the Hickory Creek Area.

The portion of the Beaver Creek area lying within the District is served by a four million gallon per day treatment plant. Since May 20, 1990, most of the sewage flow from the Ten Mile Creek area has been transported to the District's Karns Sewage Treatment Plant in the Beaver Creek area. The remaining portion of the sewage flow from the Ten Mile Creek area is discharged into the City of Knoxville's Walker Springs Pumping Station for which the District currently pays the City of Knoxville a treatment rate of $4.45 per 1,000 gallons of water sold or a minimum bill of $28,740 per year. The District and the First Utility District of Knox County, Tennessee ("First Utility District") are jointly and severally liable to the City of Knoxville for a minimum annual bill of $56,100 of which First Utility District is paying $27,360. The contract with the City of Knoxville was for a term expiring in mid-2013. This contract was extended to mid-2015 and has since expired. First Utility District's facilities are now available to the District, on an emergency basis, for the major portion of the Ten Mile Creek area sewage flow at the current cost of $3.88 per 1,000 gallons of actual metered sewage flow. Once the District's new wastewater treatment plant becomes operational and the Ten Mile Pump Station is upgraded, which projects are financed in part by the 2016 Bonds, the District intends to discontinue its use of First Utility District's facilities.

The District serves a full-service truck stop located in the northeast quadrant of the Watt Road interchange of Interstate Highways 40 and 75 in the Hickory Creek Drainage Basin, which sewage flows to First Utility District for treatment and disposal and pursuant to an agreement between the two Districts. The District also provides water to this area.

In the opinion of Counsel to the District, under both the District Act and the Bond Resolution, the District is obligated to prescribe and collect rates, fees, tolls or charges sufficient to insure that its System shall be and always remain self-supporting and such as will always produce revenues at least sufficient to provide for all expenses of operating and maintenance of the System, including reserves therefore, and to pay when due all bonds and interest thereon for the payment of which such revenues are or shall have been pledged, charged or otherwise encumbered, including reserves therefore.

The District's collection system consists of about 288.8 miles of lines.

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Billing Units of the Sewer System. The following table sets for the average number of billing units served by the Sewer System during each of the fiscal years indicated and the number and percentage of billing units served categorized by type of unit for the same periods.

Average Sewer System Billing Units
(Fiscal Year Ended June 30)

Year	Residential	Commercial	Apartments	Motel/Hotel	Total
2007	13,902	407	2,562	637	17,508
2008	14,890	442	2,562	637	18,531
2009	14,890	497	2,563	637	18,587
2010	16,004	487	NA[1]	3,775	20,266
2011	16,123	543	NA[1]	3,843	20,509
2012	16,257	554	NA[1]	3,843	20,734
2013	16,608	569	NA[1]	3,845	21,022
2014	17,133	582	NA[1]	3,847	21,562
2015	17,566	582	NA[1]	3,399	21,547
2016	18,041	592	NA[1]	3,186	21,819

Source: Audited Financial Statements and the District.
[1] In 2010 the District combined Apartments with the Hotel/Motel/Multi-Space Customers

MAJOR WATER AND SEWER CUSTOMERS

The following is a list of the ten major water and sewer customers of the District for the fiscal year ended June 30, 2016.

	Customer	Type of Business	Sales (1)	% of Total Sales
1.	Parkwest Hospital	Medical Center	$ 361,604.83	1.70%
2.	Woodlands West Apartments	Rental Real Estate	288,628.87	1.36%
3.	Sunchase Apartments	Rental Real Estate	260,975.35	1.23%
4.	Country Club Apartments	Rental Real Estate	180,561.04	0.85%
5.	Brendon Park Apartments	Rental Real Estate	177,482.04	0.84%
6.	Cedar Bluff Apartments	Rental Real Estate	149,829.41	0.71%
7.	Holiday Inn	Hospitality	136,475.71	0.64%
8.	Warren House Apartments	Rental Real Estate	113,153.83	0.53%
9.	Hampton Inn	Hospitality	78,998.53	0.37%
10.	Tennessee Veterans Home	Medical	64,199.03	0.30%
	TOTAL		**$1,811,908.64**	**8.54%**(2)

(1) Sales include only water & wastewater revenues.
(2) Amount may not total due to rounding.

RATES

The District's current rate schedule (in effect as of July 1, 2016) is as follows:

Water Rate Schedule

Residential	$ 13.05
Commercial	21.00
	3.46 per 1,000 gallons
Hotel/Motel (per space)	$6.11
	3.46 per 1,000 gallons

Wastewater Rate Schedule

Residential	$22.27
	6.34 per 1,000 gallons
All over 13,000 gallons	No Charge
Commercial	$30.80
Hotel/Motel (per space)	16.92
	6.34 per 1,000 gallons

AVERAGE NUMBER OF EMPLOYEES

Below is the average number of Employees in the District for the past five (5) years

Calendar Year	Average Number of Employees
2012	63
2013	63
2014	64
2015	67
2016	70

HISTORICAL SYSTEM GROWTH

Year	Number of Water Customers	Number of Sewer Customers
2012	21,427	16,843
2013	21,696	17,131
2014	22,264	17,671
2015	22,800	18,188
2016	23,429	18,691

Source: Audited Financial Statements and the District.

OPERATING AND FINANCIAL HISTORY OF THE SYSTEM

CAPITAL IMPROVEMENT PLAN

Each fiscal year, the District prepares a capital improvement plan ("CIP") listing anticipated infrastructure needs over a five-year period. Each CIP lists specific projects and estimated costs.

The current CIP, covering Fiscal Year 2017 through Fiscal Year 2021, includes road relocations, water projects and sewer projects, including the wastewater treatment plant financed in part by the 2016 Bonds, costing an estimated total of $89,455,000.

FUTURE RATE INCREASES

Effective July 1, 2016, the Governing Body of the District approved a wastewater rate increase of $0.50 per thousand gallons of usage, and an increase in the minimum monthly water charge of $5.00 for commercial customers. Within the past five years, the District has instituted several rate increases, particularly regarding wastewater usage, in order to provide for the financing of the District's new wastewater treatment plant, including the financing represented by the 2016 Bonds. The District does not expect that additional rate increases will be needed to provide for the financing of the wastewater treatment plant, and the District expects that future rate increases in the near-term will be instituted to provide only for those matters in the ordinary course of business, including adjustments due to inflation.

ENVIRONMENTAL COMPLIANCE

Commencing in 2011, the District was under a five-year administrative order (the "Order") from the United States Environmental Protection Agency (the "EPA") regarding the District's compliance with the Clean Water Act and, specifically, Sanitary Sewer Overflows. In response to the Order, the District instituted a variety of capital improvements to the System which had the effect of significantly decreasing the amount of sewer overflows. The Order against the District was dismissed by the EPA in September of 2016, and no new administrative order was entered. For more information regarding the Order and the District's compliance, see Note 14 to the audited financial statements attached as Appendix D to the Official Statement.

BILLINGS AND COLLECTIONS

The District reads meters on a monthly basis and handles its own billings. The District processed an estimated 274,768 payments in the Fiscal Year ended June 30, 2016. As of June 30, 2016, the District had eight (8) employees dedicated exclusively to billing and customer service. Approximately 11% of the System's customers utilize automatic bank draft for bill payment.

The District bills customers on a monthly basis, using a single invoice which includes charges for water and sewer. Payments by customers are to be allocated first to delinquent fees and then to the current charge for water and/or sewer service.

COMPETITION

The District has no competition in its service area.

The District Act provides that as long as the District continues to furnish any of the services which it is authorized to furnish, it shall continue to be the sole public corporation having the power to furnish such services within the boundaries of the District, and no other person, firm or corporation shall furnish or attempt to furnish any of such services within said boundaries. The District Act provides certain limited exceptions to the exclusive service right. The District Act provides that the exclusive right to serve may be lost if it can be established that the public convenience and necessity requires other or additional services. The District's right to serve also is subject to prior rights of a municipality to serve newly annexed territories pursuant to Section 6-51-101 et. seq., Tennessee Code Annotated. The District Act further grants to municipalities the prior right to serve areas outside their boundaries if the areas are not within the boundaries of a utility district authorized to provide the service or are not already being served by a utility district.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The District was created under the authority of Title 7, Chapter 82 of the 1937 Utility District Law of the State of Tennessee.

The District's Board of Commissioners are appointed by the Knox County Mayor for a term of four years. Knox County does not have any fiscal or budgetary control over the District. The operations of the District are funded by water and wastewater rates established by the Board of Commissioners.

A. The financial statements of the District are reported on the accrual basis. Under this method, revenues are recorded when earned and expenses are recorded when incurred.

B. Certain assets which can only be used for debt service are shown as restricted assets in the accompanying balance sheets.

C. Material and supply inventories are stated at the lower of cost (first in, first out method) or market. Incidental supplies and chemicals are not included in inventory.

D. Bond issue costs are amortized during the period the bonds are outstanding using the effective interest method of amortization.

E. Property, plant and equipment in service is carried at cost and is depreciated over the estimated useful life of the asset using the straight-line method of depreciation. Cost consists of all direct costs related to construction or acquisition of utility plant assets. In addition, the District capitalizes interest costs related to qualified expenditures for projects under development. Depreciation is not considered in collection lines, pump stations, treatment plants, etc., until the assets are actually put into use. Plant contributed by developers is included at the developers' cost or estimated cost.

F. Revenues are billed monthly to customers on a cyclical meter reading basis. Revenues are not accrued for usage from the last meter reading date to June 30.

G. Amounts received from customers to connect to the system are recorded as income, to the extent of the cost of the connection. Amounts received substantially in excess of the connection costs are recorded as contributions in-aid of construction.

H. Investments are carried at cost unless a material decline in market value is determined to be permanent, in which case the investment is reduced to market.

I. For purposes of the Statements of Cash Flows, cash equivalents include cash on hand, bank deposits, short-term investments in certificates of deposit and federal government or federal agencies discount notes having a maturity of three months or less at the balance sheet date.

J. The District has elected under Government Accounting Standards Board (GASB) Statement Number 20 to apply only the accounting pronouncements issued by GASB after November 30, 1989.

SUMMARY OF OPERATIONS

The financial statements of the District for the year ended June 30, 2016 have been examined by Parsons and Wright, CPAs, Kingston, Tennessee, independent accountants, whose report thereon appears herein.

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CAPITALIZATION

The following table sets forth the capitalization of the District as of June 30, 2016.

	Outstanding (as of June 30, 2016)
Total Long Term Indebtedness	$ 76,895,231.29
Total Current Liabilities	1,495,056.34
Retained Earnings & Contributed Capital	100,038,992.97
Total Long Term Indebtedness and Total Customers' Equity	**$178,429,280.60**

Source: The District.

UTILITY PLANT

The cost of the District's utility plant as of June 30, 2016 is as follows:

Utility Plant in Service	$216,633,789
Accumulated Depreciation	(69,511,182)
Construction in Progress	10,130,204
TOTAL	**$157,252,811**

Source: The District.

PENSION PLANS

The District's single-employer defined benefit pension plan (the "Plan") provides pension benefits for all full-time employees of the District who have been employed for at least six (6) months and are at least twenty-one (21) years old. The Plan is a single-employer noncontributory retirement plan, and assets are held with Reliance Trust Company as investment custodian and in trust with Countybank Trust Services and Commercial Bank and Trust Company. The plan and is administered by USI Consulting Group.

The Plan provides retirement, disability and death benefits. Retirement benefits are calculated as 2.25% per year of service (limited to 100%) times the highest average of 36 consecutive months of compensation. The Plan provides participants with a life annuity with ten years certain, with several other options for retirement benefit payments, including several annuity choices or a lump sum payment. Vesting begins at 20% per year after one year of service. An employee becomes fully vested after five years of service and normal retirement age is 65.

The Plan document includes a provision for supplemental retirement accounts for certain designated personnel. Designated personnel are determined by the Governing Body of the District. Contribution credits are added to the balance of the supplemental retirement account equal to 10% of the participant's annual rate of salary. Interest is also credited to the balance of the supplemental retirement account at an annual rate of 5%. The account balance can be paid out in the form of a lump sum or under any other form of benefit permitted by the Plan. If a participant terminates employment prior to their early retirement date, the supplemental retirement account is forfeited.

The District's Governing Body has the authority to amend or change the Plan and its benefit terms. The District's Governing Body amended the Plan on November 21, 2013 to provide an option, whereby the beneficiary of a participant who dies after annuity benefit payments under the Plan begin will be entitled to a death benefit equal to the excess, if any, of the lump sum value of the participant's total accrued benefit compared to the total amount of benefit payments made to the participant prior to their death.

The District's Governing Body establishes contribution amounts based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability for past service costs. For the years ended June 30, 2016 and 2015, the District's contributions were approximately 37% and 36%, respectively, of annual covered employee payroll.

In May 2014, the Tennessee General Assembly passed "The Public Employee Defined Benefit Financial Security Act of 2014", codified as Tennessee Code Annotated Section 9-3-501, which, among other things, requires the District to make annual employer contributions equal to 100% of its actuarially determined contributions, use the entry age normal cost method, and limit future pension benefit improvements if the net pension plan funded ratio is less than 60%, beginning in Fiscal Year 2016 with various provisions phased in through Fiscal Year 2020.

Former employees of the District who retired prior to July 1, 1991 are provided a defined benefit pension plan through the Public Employee Retirement Plan, an agent multiple-employer pension plan administered by the Tennessee Consolidated Retirement System ("TCRS"). TCRS was created by state statute under Tennessee Code Annotate Title 8, Chapters 34-37. The TCRS Board of Trustees is responsible for the proper operation and administration of the TCRS. The Tennessee Treasury Department, an agency in the legislative branch of state government, administers the plans of TCRS. TCRS issues a publicly available financial report that can be obtained at www.treasury.tn.gov/tcrs. The District withdrew from TCRS on July 1, 1991. Active employees of the District as of that date transferred their account balances to the Plan. Contributions for employees are established in the statutes governing the TCRS and may only be changed by the Tennessee General Assembly. The District makes employer contributions at the rate set by the TCRS Board of Trustees as determined by an actuarial valuation. For the years ended June 30, 2015 and 2014, the Actuarially Determined Contributions (ADC) for the District were $0 based on a rate of 0% of covered payroll.

For a discussion of the District's pension plan, see Note 10 – Pension Plan to the District's audited financial statements included as Appendix D to the Official Statement. The District does not offer other post-employment benefits.

POSSIBLE ANNEXATION BY CITY OF KNOXVILLE

Present State law (Tennessee Code Annotated, Section 6-51-111) provides in pertinent part as follows:

(a) Upon adoption of an annexation ordinance..., an annexing municipality and any affected instrumentality of the State of Tennessee, such as, but not limited to, a utility district, ... shall attempt to reach agreement in writing for allocation and conveyance to the annexing municipality of any or all public functions, rights, duties, property, assets and liabilities of such State instrumentality that justice and reason may require in the circumstances....The annexing municipality if and to the extent that it may choose, shall have the exclusive right to perform or provide municipal and utility functions and services in any territory which it annexes, notwithstanding Section 7-82-301 or any other statute....

(b) Subject to such exclusive right, any such matters upon which the respective parties are not in agreement in writing within sixty (60) days after the operative date of such annexation shall be settled by arbitration with the laws of arbitration of the State of Tennessee effective at the time of submission to the arbitrators....The award so rendered shall be transmitted to the Chancery Court of the county in which the annexing municipality is situated, and thereupon shall be subject to review in accordance with Sections 29-5-113, 29-5-115 and 29-5-118.

(c) (1) If the annexed territory is then being provided with a utility service by a State instrumentality which has outstanding bonds or other obligations payable from the revenues derived from the sale of such utility service, the agreement or arbitration award referred to above shall also provide:

(A) That the municipality will operate the utility property in such territory and account for the revenues there from in such manner as not to impair the obligations of contract with reference to such bonds or other obligations; or

(B) That the municipality will assume the operation of the entire utility system of such State instrumentality and the payment of such bonds or other obligations in accordance with their terms.

(2) Such agreement or arbitration award shall fully preserve and protect the contract rights vested in the holders of such outstanding bonds or other obligations.

From May 8, 1973 to May 20, 1990, all of the District's Ten Mile Creek drainage basin sewage flow, together with a small portion of the Beaver Creek drainage sewage flow, discharged into the City of Knoxville's sewage system pursuant to a Wastewater Facility Agreement ("Wastewater Agreement") dated March 31, 1971, as amended. Since May 20, 1990, all of the District's Beaver Creek drainage basin sewage flow and most of the Ten Mile Creek drainage basin sewage flow has been discharged into the District's Karns Sewage Treatment Plant. However, the Wastewater Agreement continues in effect through mid-2013 under which the District continues to discharge into the City of Knoxville's sewage system a small portion of the Ten Mile Creek drainage basin sewage flow, together with emergency facilities for such discharge of the remainder of the Ten Mile Creek drainage basin sewage flows. Section 20 of the Wastewater Agreement reads as follows:

20. In the event that the City of Knoxville shall annex as a part of its corporate limits any substantial portion of the Ten Mile Creek Drainage Basin, it is hereby agreed that the City of Knoxville shall be, and it hereby is, authorized to take over the operation of the waste water facilities herein contemplated to be built by the two Districts upon the assumption by the City of Knoxville of all outstanding obligations of the Districts in connection with said waste water facilities; provided, however, in the event that the City of Knoxville exercises its authority as provided herein, it shall take over the operation of the entire waste water facilities of the respective Districts herein contemplated to the built by the two Districts unless all parties concerned agree in writing that the City of Knoxville shall take over the operation of some portion less than the entire waste water system. It is further understood and agreed that nothing stated herein relative to the authority of the City of Knoxville to annex certain of the waste water facilities of the respective Districts shall in any way apply to the water systems of the respective Districts. It is further understood and agreed that nothing stated herein relative to the authority of the City of Knoxville to annex certain of the waste water facilities of the respective Districts shall in any way apply to any of the waste water facilities of the respective Districts that are not connected with or built and financed under the authority of this Agreement.

Thus, under paragraph 20 of the Wastewater Agreement, in the event of the City of Knoxville's annexation of any substantial portion of the Ten Mile Creek Drainage Basin, the City may take over the operation of the waste water facilities contemplated to be built by the District under the Wastewater Agreement upon the City's assumption of all outstanding obligations of the District in connection with such facilities notwithstanding that the City is not annexing the particular facilities contemplated by the Wastewater Agreement.

In 1988, the voters of Knox County approved a new charter form of government for Knox County that Charter vested in the County government, in addition to the traditional powers of County government, full powers of a municipality and public corporation. The new charter government went into effect on September 1, 1990. Knox County is only the second county in Tennessee to establish such a home rule government (the home rule charter government having taken effect for Shelby County, Tennessee, in 1986). Counsel for the District knows of no adjudications of the question of a city lying within a home rule charter county government legally annexing into the larger municipality where the latter is a county government. Programs of the City of Knoxville to annex substantial areas of the County have not been effective since 1962 where the property owners within the proposed annexed area have opposed such annexation. Three law suits during the past fifteen years have resulted in hung juries, which results have rendered the proposed annexations ineffective. While much of the property lying within the District receives all, or most, services that could be provided by the City of Knoxville upon annexation, it is not likely that annexation will occur where the property owners within a given proposed annexed area oppose such annexation. Nevertheless, the possibility of annexation within District remains.

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THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

SUMMARY OF BONDED INDEBTEDNESS

AMOUNT ISSUED		PURPOSE	DUE DATE	INTEREST RATE(S)		OUTSTANDING AS OF 6/30/16 [1]
$ 2,140,000	(4)	Note Payable to Knox County, Tennessee	June 2020	0.00%		$ 1,490,000
1,340,000	(4)	Water and Sewer Revenue Bonds, Series 2004 (Rural Development)	2042	Fixed		1,121,230
3,658,096	(4)	Loan Agreement, Series CWA 2009-245	2031	Fixed		1,689,902
35,425,000	(3)	Loan Agreement (Revenue Program V), Series V-B-1	June 2035	Variable / Synthetic Fixed	(2)	29,385,000
35,000,000		Water and Sewer Revenue Bonds, Series 2010	June 2045	Fixed		35,000,000
9,995,000		Water and Sewer Revenue Bonds, Series 2015	June 2045	Fixed		9,995,000
$ 87,558,096		**TOTAL BONDED DEBT**				$ 78,681,132
$ 26,535,000		Plus: Water and Sewer Revenue Bonds, Series 2016	June 2046	Fixed		26,535,000
25,000,000	(5)	Plus: Loan Agreement (Revenue Program V), Series V-E-1	June 2046	Variable	(2)	25,000,000
(4,998,096)		Less: Refunded Debt	2042	Fixed		(2,811,132)
$ 134,095,000		**TOTAL BONDED DEBT**				$ 127,405,000

NOTES:

(1) For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein. The Revenue Series V-B-1 Loan Agreement and corresponding Revenue Series V-B-1 Bonds were issued August 28, 2009 and refinanced the District's outstanding Revenue Series I-A-1 Loan Agreement, dated August 1, 1997 and outstanding in the amount of $10,000,000; the Revenue Series II-D-2 Loan Agreement, dated July 1, 2000 and outstanding in the amount of $12,500,000; the Series IV-C-1 Loan Agreement, dated December 1, 2005 and outstanding in the amount of $12,500,000 and the District defeased the Water and Sewer Revenue Refunding Bonds, Series 1997B due December 1, 2009.

(2) The District budgets to account for interest rate and/or basis risk.

(3) The Revenue Series II-D-2 Loan has been swapped to an synthetic fixed rate. The swap is still in place and has a current national amount of $12,500,000. The Revenue Series II-D-2 Bonds have been refunded and replaced with the Revenue Series V-B-1 Loan Agreement and corresponding Revenue Series V-B-1 Bonds. For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

(4) Subordinated Debt.

(5) Prior to the end of the year, the District plans on entering into a loan agreement with Bank of America for approximately $25,000,000 which will be in a variable bank index mode. For additional information, see "Miscellaneous - Additional Debt" in the Preliminary Official Statement.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

BONDED DEBT SERVICE REQUIREMENTS - SENIOR LIEN DEBT SERVICE

F.Y. Ended 6/30	As of June 30, 2016 Existing Senior Revenue Debt [1] Principal	Interest [2]	Net Treasury Rebate[5]	TOTAL	Water and Sewer Revenue Bonds, Series 2016 [3] Principal	Interest [3]	TOTAL	Percent 2016 Principal Repaid	Loan Agreement (Revenue Program V), Series V-E-1 [4] Principal	Interest [2]	TOTAL	Percent V-E-1 Principal Repaid	Total Senior Bonded Debt Service Requirements Principal	Net Interest	TOTAL	Percent Senior Principal Repaid
2017	$ 1,045,000	$ 3,942,313	$ (769,307)	$ 4,218,005			$ -		$ -	$ 500,000	$ 500,000	0.00%	$ 1,045,000	$ 3,673,005	$ 4,718,005	1.05%
2018	1,095,000	3,897,900	(769,307)	4,223,593			-		1,530,000	1,000,000	2,530,000		2,625,000	4,128,593	6,753,593	
2019	1,150,000	3,851,363	(769,307)	4,232,055			-		95,000	938,800	1,033,800		1,245,000	4,020,855	5,265,855	
2020	120,000	3,802,487	(769,307)	3,153,180			-		265,000	935,000	1,200,000		385,000	3,968,180	4,353,180	
2021	1,585,000	3,796,487	(769,307)	4,612,180			-		685,000	924,400	1,609,400	10.30%	2,270,000	3,951,580	6,221,580	7.62%
2022	1,645,000	3,728,438	(765,927)	4,607,511			-		655,000	897,000	1,552,000		2,300,000	3,859,511	6,159,511	
2023	1,710,000	3,661,213	(762,424)	4,608,789			-		650,000	870,800	1,520,800		2,360,000	3,769,589	6,129,589	
2024	1,775,000	3,590,725	(758,758)	4,606,967			-		635,000	844,800	1,479,800		2,410,000	3,676,767	6,086,767	
2025	1,845,000	3,517,100	(755,011)	4,607,089			-		625,000	819,400	1,444,400		2,470,000	3,581,489	6,051,489	
2026	1,945,000	3,440,125	(751,141)	4,633,984			-		615,000	794,400	1,409,400	23.02%	2,560,000	3,483,384	6,043,384	19.79%
2027	2,020,000	3,358,838	(747,150)	4,631,688			-		605,000	769,800	1,374,800		2,625,000	3,381,488	6,006,488	
2028	2,100,000	3,272,363	(742,506)	4,629,856			-		630,000	745,600	1,375,600		2,730,000	3,275,456	6,005,456	
2029	2,185,000	3,182,112	(737,863)	4,629,250			-		585,000	720,400	1,305,400		2,770,000	3,164,650	5,934,650	
2030	2,275,000	3,088,250	(733,220)	4,630,031			-		560,000	697,000	1,257,000		2,835,000	3,052,031	5,887,031	
2031	2,395,000	2,987,812	(727,924)	4,654,888			-		590,000	674,600	1,264,600	34.90%	2,985,000	2,934,488	5,919,488	33.82%
2032	2,620,000	2,882,588	(722,629)	4,779,958			-		535,000	651,000	1,186,000		3,155,000	2,810,958	5,965,958	
2033	2,720,000	2,769,663	(717,334)	4,772,328			-		520,000	629,600	1,149,600		3,240,000	2,681,928	5,921,928	
2034	2,830,000	2,652,487	(712,039)	4,770,448			-		530,000	608,800	1,138,800		3,360,000	2,549,248	5,909,248	
2035	2,970,000	2,530,337	(706,744)	4,793,593			-		525,000	587,600	1,112,600		3,495,000	2,411,193	5,906,193	
2036	3,100,000	2,401,738	(701,449)	4,800,288			-		525,000	566,600	1,091,600	45.44%	3,625,000	2,266,888	5,891,888	50.80%
2037	3,225,000	2,218,113	(647,440)	4,795,673			-		500,000	545,600	1,045,600		3,725,000	2,116,273	5,841,273	
2038	3,375,000	2,026,363	(590,782)	4,810,580			-		565,000	525,600	1,090,600		3,940,000	1,961,180	5,901,180	
2039	3,525,000	1,813,888	(528,390)	4,810,497			-		1,250,000	503,000	1,753,000		4,775,000	1,788,497	6,563,497	
2040	3,675,000	1,591,913	(463,188)	4,803,725			-		1,360,000	453,000	1,813,000		5,035,000	1,581,725	6,616,725	
2041	3,850,000	1,360,438	(395,175)	4,815,263			-		1,450,000	398,600	1,848,600	65.94%	5,300,000	1,363,863	6,663,863	73.72%
2042	4,050,000	1,115,438	(323,325)	4,842,113			-		535,000	340,600	875,600		4,585,000	1,132,713	5,717,713	
2043	4,300,000	859,063	(248,624)	4,910,439			-		590,000	319,200	909,200		4,890,000	929,639	5,819,639	
2044	4,525,000	585,906	(169,361)	4,941,546			-		685,000	295,600	980,600		5,210,000	712,146	5,922,146	
2045	4,725,000	299,531	(86,676)	4,937,855			-		815,000	268,200	1,083,200	76.44%	5,540,000	481,055	6,021,055	94.07%
2046	-	-	-	-			-		5,890,000	235,600	6,125,600	100.00%	5,890,000	235,600	6,125,600	100.00%
	$ 74,380,000	$ 78,224,988	$ (18,341,616)	$134,263,372	$ -	$ -	$ -		$ 25,000,000	$ 19,060,600	$ 44,060,600		$ 99,380,000	$ 78,943,972	$178,323,972	

NOTES:

(1) For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein. The Revenue Series V-B-1 Loan Agreement and corresponding Revenue Series V-B-1 Bonds were issued August 28, 2009 and refinanced the District's outstanding Revenue Series I-A-1 Loan Agreement, dated August 1, 1997 and outstanding in the amount of $10,000,000; the Revenue Series II-D-2 Loan Agreement, dated July 1, 2000 and outstanding in the amount of $12,500,000; the Series IV-C-1 Loan Agreement, dated December 1, 2005 and outstanding in the amount of $12,500,000 and the District defeased the Water and Sewer Revenue Refunding Bonds, Series 1997B due December 1, 2009.

(2) The District budgets to account for interest rate and/or basis risk. Debt Service on variable rate bonds is calculated at 5.00%, a budget rate.

(3) Average Interest Rate of ___%.

(4) Prior to the end of the year, the District plans on entering into a loan agreement with Bank of America for approximately $25,000,000 which will be in a variable bank index mode.

(5) The Net Treasury Rebate consists of monies payable from the U.S. Trasury which are subject to reduction due to sequestration. The Net Treasury Rebate provided herein contemplates a reduction in the amount of 6.9%. It is unclear at this time whether the percentage reduced will decrease or increase due to sequestration.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

BONDED DEBT SERVICE REQUIREMENTS - SUBORDINATED DEBT SERVICE

F.Y. Ended	Subordinated Water & Sewer Revenue Debt[1]			Percent Subordinate Principal Repaid	Less: Refunded Subordinated Revenue Debt			Total Subordinated Bonded Debt Service Requirements			Percent Total Principal Repaid
6/30	Principal	Interest	TOTAL		Principal	Interest	TOTAL	Principal	Net Interest	TOTAL	
2017	$ 126,266	$ 73,926	$ 200,192	2.94%			$ -	$ 126,266	$ 73,926	$ 200,192	2.94%
2018	128,883	71,322	200,205				-	128,883	71,322	200,205	
2019	1,621,571	68,648	1,690,219				-	1,621,571	68,648	1,690,219	
2020	134,334	65,900	200,234				-	134,334	65,900	200,234	
2021	137,160	63,076	200,236	49.95%			-	137,160	63,076	200,236	49.95%
2022	140,077	60,174	200,250				-	140,077	60,174	200,250	
2023	143,074	57,190	200,264				-	143,074	57,190	200,264	
2024	146,155	54,121	200,276				-	146,155	54,121	200,276	
2025	149,322	50,966	200,288				-	149,322	50,966	200,288	
2026	152,577	47,720	200,297	66.95%			-	152,577	47,720	200,297	66.95%
2027	155,937	44,380	200,316				-	155,937	44,380	200,316	
2028	159,379	40,943	200,321				-	159,379	40,943	200,321	
2029	162,930	37,405	200,335				-	162,930	37,405	200,335	
2030	166,583	33,762	200,346				-	166,583	33,762	200,346	
2031	151,923	30,012	181,934	85.47%			-	151,923	30,012	181,934	85.47%
2032	46,094	26,425	72,520				-	46,094	26,425	72,520	
2033	48,152	24,367	72,520				-	48,152	24,367	72,520	
2034	50,301	22,218	72,520				-	50,301	22,218	72,520	
2035	52,547	19,973	72,520				-	52,547	19,973	72,520	
2036	54,892	17,627	72,520	91.33%			-	54,892	17,627	72,520	91.33%
2037	57,343	15,177	72,520				-	57,343	15,177	72,520	
2038	59,902	12,617	72,520				-	59,902	12,617	72,520	
2039	62,576	9,943	72,520				-	62,576	9,943	72,520	
2040	65,370	7,150	72,520				-	65,370	7,150	72,520	
2041	68,288	4,232	72,520	98.62%			-	68,288	4,232	72,520	98.62%
2042	59,496	1,419	60,916	100.00%			-	59,496	1,419	60,916	100.00%
	$ 4,301,132	$ 960,693	$ 5,261,825		$ -	$ -	$ -	$ 4,301,132	$ 960,693	$ 5,261,825	

(1) For more information, see the notes to the Financial Statements in the FINANCIAL STATEMENTS included herein.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

Five Year Summary of Revenues, Expenditures and
Changes In Retained Earnings
For the Fiscal Year Ended June 30

	2012	2013	2014	2015	2016
Revenues:					
Water Revenue	$ 7,226,168	$ 7,417,294	$ 7,881,838	$ 8,611,641	$ 9,089,180
Wastewater Revenue	8,018,859	8,731,351	9,577,125	10,875,487	12,123,653
Connection Fees	486,860	550,392	836,668	893,658	945,437
Customer Forfeited Discounts	237,367	258,370	258,507	285,589	297,708
Service Fees	91,025	102,125	111,675	120,201	129,075
Wastewater Inspection Fees	5,250	7,775	11,730	13,600	14,225
Miscellaneous Revenue	151,066	182,748	242,788	199,593	282,617
Total Operating Revenues	$ 16,216,595	$ 17,250,055	$ 18,920,331	$ 20,999,769	$ 22,881,895
Operating Expenses:					
Purification and Supply	$ 1,132,055	$ 1,154,874	$ 1,114,272	$ 1,103,041	$ 1,164,483
Collection and Treatment	2,325,821	2,821,772	2,220,697	2,438,755	3,036,124
Treatment and Distribution	2,445,654	2,393,421	2,547,171	2,894,879	2,879,875
CMOM Program	1,302,429	1,415,128	1,465,689	1,545,363	1,560,603
Shop and General Maintenance	306,275	375,418	470,839	333,439	389,611
Customer Accounting and Collection	132,195	141,547	122,870	121,724	131,648
Administrative and General	2,211,369	2,072,488	1,880,537	2,089,427	2,102,988
Depreciation					
Water System and General Plant	1,717,089	1,722,069	2,015,471	2,543,567	2,590,046
Wastewater System	1,988,219	2,196,148	2,315,151	2,411,126	2,487,613
Other	210,734	260,965	270,761	315,173	297,434
Total Operating Expenses	$ 13,771,840	$ 14,553,830	$ 14,423,458	$ 15,796,494	$ 16,640,425
Operating Earnings	$ 2,444,755	$ 2,696,225	$ 4,496,873	$ 5,203,275	$ 6,241,470
Other Income (Expenses):					
Interest Income	$ 279,997	$ 234,383	$ 136,580	$ 55,893	$ 187,435
Interest Expense	(2,047,737)	(1,722,259)	(1,714,150)	(2,067,955)	(2,642,317)
Det Issuance Expense	-	-	-	-	(245,259)
Gain (Loss) on Sale of Assets	(29,891)	9,615	4,225	-	26,286
Change in Fair Value of Derivative - Interest Rate Swap (1)	-	-	-	(3,396,726)	(905,655)
Non-Operating Revenues (Expenses)	$ (1,797,631)	$ (1,478,261)	$ (1,573,345)	$ (5,408,788)	$ (3,579,510)
Increase in Net Assets before Capital Contributions	$ 647,124	$ 1,217,964	$ 2,923,528	$ (205,513)	$ 2,661,960
Capital Contributions:					
Developer Contributions - Cash	$ 69,290	$ 2,550	$ 5,100	$ 43,350	$ 203,654
Developer Contributions	1,745,692	714,774	1,216,660	1,074,426	1,784,270
Water Tap Fees in Excess of Cost	-	-	-	-	-
Sewer Tap Fees in Excess of Cost	-	-	-	-	-
Total Other Income (Expenses)	$ 1,814,982	$ 717,324	$ 1,221,760	$ 1,117,776	$ 1,987,924
Net Earnings	**$ 2,462,106**	**$ 1,935,288**	**$ 4,145,288**	**$ 912,263**	**$ 4,649,884**

Source: Annual Financial Reports for the District.

NOTES:

(1) Related to Revenue Series II-D-2 Loan Agreement Interest Rate Swap. This was a non-cash account change. Please see in the District's June 30, 2015 audited Annual Financial Report for more information.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

HISTORICAL DEBT SERVICE COVERAGE ON BONDS

For the Fiscal Year Ended June 30

	2012	2013	2014	2015	2016
Gross Revenue (1)	$ 17,062,739	$ 17,775,859	$ 19,076,456	$ 21,092,830	$ 23,272,984
Operating Expenses (2)	9,855,798	10,374,648	9,882,078	10,526,628	11,265,332
Income Available For Debt Service	7,206,941	7,401,211	9,194,378	10,566,202	12,007,652
Actual Debt Service Requirements (3)	3,331,152	2,541,952	2,577,935	2,626,665	4,006,308
Bond Coverage	2.16 X	2.91 X	3.57 X	4.02 X	3.00 X
Maximum Estimated Debt Service Requirements on Outstanding and Proposed Senior Bonds (FY 2045) (4)	8,190,855	8,190,855	8,190,855	8,190,855	8,190,855
Maximum Senior Bond Coverage	0.88 X	0.90 X	1.12 X	1.29 X	1.47 X

Source: Annual Financial Reports for the District.

(1) Includes operating revenues, interest income received and cash capital contributions.

(2) Does not include depreciation expense.

(3) Interest includes interest paid, paying agent's fees and service charges net of capitalized construction period interest.

(4) Assumes a 4.25% Net Interest Rate on the Revenue Series V-B-1 Loan and is net of the Estimated U.S. Treasury Subsidy of 35% and 2.415% sequester for Series 2010 Bonds.

KNOX COUNTY AND CITY OF KNOXVILLE

LOCATION

Knox County, Tennessee (the "County" or "Knox County") is located in the northeastern portion of the State of Tennessee. Founded in 1791 where the French Broad and Holston Rivers converge to form the Tennessee River, Knoxville, Tennessee (the "City" or "Knoxville") is the largest city in East Tennessee and ranks third largest in the State. Knoxville is also the County Seat. The County is located in a broad valley between the Cumberland Mountains to the northwest and the Great Smoky Mountains to the southeast.

To the north, the County is bordered by Union and Grainger Counties. Jefferson and Sevier Counties make up the County's eastern border, while the County's southern border is provided by Blount and Loudon Counties. To the immediate west of the County lies Anderson County. There are about 98 square miles in the City and about 508 square miles in the County.

GENERAL

The Knoxville Metropolitan Statistical Area (the "MSA") had a population of 837,571 according to the 2010 US Census. The MSA includes Knox (Knoxville and Farragut), Anderson (Oak Ridge and Clinton), Blount (Maryville and Alcoa), Campbell (LaFollette), Grainger (Rutledge), Loudon (Loudon), Morgan (Wartburg), Roane (Harriman) and Union (Maynardville) Counties.

The City is also part of the Knoxville-Sevierville-Harriman Combined Statistical Area (the "CSA"). According to the 2010 Census, the CSA had a population of 1,056,442. The CSA includes Roane, Anderson, Blount, Knox, Loudon, Union, Grainger, Hamblen, Jefferson, Campbell, Cocke and Sevier Counties. The City is the largest city in the CSA with a population of 178,874 according to the 2010 Census. The 2010 Census reported the County (including the City) with a population of 432,226.

The following table shows past and current population figures for the City and County:

Population Growth

	1970	1980	1990	2000	2010	2015*
Knoxville	174,687	175,045	165,121	173,890	185,100	185,291
Knox County	276,293	319,694	335,749	382,032	432,226	451,324

The only other municipality within the County, the Town of Farragut, has an estimated 2015 population of approximately 21,919 persons.

* 2015 Estimates from U.S. Census Bureau
Source: U.S. Census Bureau.

SOCIOECONOMIC DATA

The following socioeconomic factors indicate the standard of living in the County, as compared to that of the nation and state:

Social and Economic Characteristics

	National	Tennessee	Knox County	Knoxville	Farragut
Median Value Owner Occupied Housing	$175,700	$139,900	$158,400	$116,500	$311,400
% High School Graduates or Higher Persons 25 Years Old and Older	86.30%	84.90%	89.9%	87.0%	96.8%
% Persons with Income Below Poverty Level	14.80%	18.30%	17.7%	24.6%	3.9%
Median Household Income	$53,482	$44,621	$47,543	$33,494	$104,715

Source: U.S. Census Bureau State & County QuickFacts - 2014.

TRANSPORTATION

The area has excellent transportation facilities by rail, air, river and highway. Both the Norfolk Southern and CSX Railroads have terminals and stops in the County, with lines radiating in nine directions. The Pellissippi Highway (I-140) provides a direct link to I-40 and I-75 in Knox County. Major highways serving the County include U.S. Highway 44, 129, 321, 411 and 441 as well as State Routes 33, 75 and 95.

McGhee Tyson Airport. The McGhee Tyson Airport (the "Airport") is the principal commercial airport in East Tennessee, providing commercial airline, air cargo, military aviation and general aviation services. With parallel 9,000 feet runways, the Airport can accommodate any size aircraft. The Airport is located within the city limits of Alcoa 12 miles south of downtown Knoxville. The Airport occupies more than 2,000 acres of land with space for additional air cargo facilities or economic development. The Airport is owned and managed by the Metropolitan Knoxville Airport Authority (the "MKAA").

The MKAA was established in 1978 as an independent nonprofit agency to own and operate the Airport and the Downtown Island Airport. The MKAA's nine-member Board of Commissioners (the "Board") is appointed by the Mayor of Knoxville and confirmed by City Council. This Board determines the policies for the current MKAA staff of 140 employees in six departments. The Board appoints a President who serves as the chief administrator and executive officer. All of the revenues are generated by user fees and rental income so no taxpayer dollars are used to support airport operations.

Five air cargo services provide daily service. In addition, six passenger airlines carry air cargo on most flights. More than 80,000,000 pounds of airfreight annually pass through its cargo facilities. Federal Express, United Parcel Service and DHL are the main couriers.

Commercially, the Airport has six major airlines serving 20 non-stop destinations including Atlanta, Dallas/Ft. Worth, Orlando, New York, Chicago, Denver and Washington D.C. With more than 120 arrivals and departures each day and more than 4,000 seats available, the Airport is one of the most convenient and accessible regional airports in the nation.

The Airport is served by several low fare carriers: Allegiant Air and Frontier Airlines. Allegiant Travel Company (the "Company") is focused on linking travelers in small cities to world-class leisure destinations such as Las Vegas, NV, Myrtle Beach, NC, Orlando, Fla., Ft. Lauderdale, Fla., Sarasota/Fort Meyers, Fla. and Tampa/St. Petersburg, Fla. Through its subsidiary, Allegiant Air, the Company operates a low-cost, high-efficiency, all-jet passenger airline offering air travel both on a stand-alone basis and bundled with hotel rooms, rental cars and other travel related services. Frontier Airlines started flight in the summer of 2011 from Knoxville to its hub in Denver, Colorado.

The Airport is served by major and regional carriers including:

Major Airlines:		***Regional Carriers:***	
Allegiant Air	Frontier Airlines	American Eagle	United Express
Delta Airlines			

Source: Metropolitan Knoxville Airport Authority.

These airlines connect passengers with service to several hub airports across the nation on more than 120 flights daily.

McGhee Tyson Airport

Total Year	Commercial Passengers	Total Air Cargo in Pounds
2006	1,674,877	92,219,596
2007	1,821,581	100,286,989
2008	1,742,579	97,366,366
2009	1,680,716	82,304,377
2010	1,688,882	93,393,658
2011	1,773,671	92,390,849
2012	1,747,145	91,514,071
2013	1,676,374	84,029,942
2014	1,738,133	74,115,672
2015	1,774,081	45,449,380

Source: Metropolitan Knoxville Airport Authority.

The Airport has undergone many improvements in the past several years, including:

2008 West Aviation Area Improvements - $50.7 million
2008 Airport Rescue and Fire Fighting Facility - $11.3 million
2009 New Food Court in Terminal - $615,000
2014 Runway and Taxiway System Upgrade - $108 million

Source: Metropolitan Knoxville Airport Authority.

TACAir is the Airport's general aviation services provider. In addition to providing fuel and services to commercial carriers, it also accommodates the general aviation industry, which includes corporate aviation, charter flights, flight schools and people who fly as a hobby.

The Tennessee Air National Guard's 134th Air Refueling Group operates out of the Airport. The Guard's KC-135E tankers provide refueling to the country's military aircraft. In addition, the Army Aviation Support Facility, the 110th and 119th Tactical Control Squadrons and the 228th Combat Communications Squadron operate on the base.

The direct and indirect economic impact of the Airport, including payroll, local spending, transportation cost savings, capital spending and induced benefits is estimated at $1 billion annually. The jobs formed by the aviation industry are perhaps the most important direct benefit that the Airport offers East Tennessee. Approximately 2,700 people are now employed at the Airport.

Downtown Island Home Airport. The City's Downtown Island Home Airport, located five minutes from downtown, serves as another home base for smaller and privately owned airplanes. The Downtown Island Home Airport is a 150-acre general aviation facility with a 3,500-foot runway. It is home to more than 100 private and corporate aircraft, with 24 hours a day service available

Waterways. Fifteen miles away is the head of the Tennessee River navigation channel in the City. This river is part of the Interconnected Inland Water System that links the City with 21 states, the Mississippi River and the Great Lakes. Linkages may be made to the entire inland waterway system, allowing shipments to be made by water to Houston, Tampa, Pittsburgh, Minneapolis and Little Rock.

Six active river terminals handle barge shipments throughout the area. The Tennessee-Tombigbee Waterway links East Tennessee with 13 other states and the Gulf of Mexico. This 234-mile canal connects 16,000 miles of waterways throughout Tennessee, Mississippi and Alabama leading to the Port of Mobile and the Gulf of Mexico. This Tennessee-Tombigbee Waterway shortens the shipping between Tennessee and the Gulf of Mexico by 882 miles and enables East Tennessee products to arrive at their Gulf of Mexico destination from eight to nine days earlier. The development of the Tennessee-Tombigbee Waterway has been a catalyst for the development of industry and agriculture throughout the area. Barge shipping has always been a popular alternative to rail in East Tennessee because of the existence of the Inland Water System.

The City also has a Foreign Trade Zone and is an inland Port of Entry with a U.S. Customs Office. In 1988, the City was given its Foreign Trade Zone designation by the U.S. Department of Commerce. This designation allows manufacturers to ship foreign raw materials and components to parts of the City and store them duty free in the City until used.

EDUCATION

Knox County School System. The County operates 90 schools: 50 elementary (including primary and intermediate), 14 middle, 16 high schools, and several non-traditional/adult education centers. Included are five magnet schools offering enhanced arts and science curriculum and a new Science, Technology, Engineering, and Mathematics (STEM) Academy. In fall 2015, total public school enrollment was 59,516, while the system employed 3,927 teachers. In addition to public education, there are 52 private and parochial schools offering elementary and secondary instruction in the County.

Source: Tennessee Department of Education and Knox Metropolitan Planning Commission.

Post-secondary education is available at 10 public and private four year institutions in the County and the surrounding area. The University of Tennessee's main campus is in Knoxville. Pellissippi State Technical Community College and Roane State Community College offer two-year programs for technical and associate degrees along with four other vocational/technical institutions. There are four business colleges located in the area.

The University of Tennessee, Knoxville ("UTK" or "UT") is one of the oldest land-grant universities in the nation. There are 220 buildings on a 550-acre campus with about 9,813 employees (faculty and staff). Blount College, the UTK's forerunner, was established in Knoxville in 1794, two years before Tennessee became a state. With a fall 2016 enrollment of 28,052 students, UTK is the largest campus in the University of Tennessee System (the "UT System"). The UT System is a statewide institution governed by a 26-member Board of Trustees appointed by the governor of Tennessee. Institutions of the UT System are UTK, University of Tennessee Health Science Center in Memphis, University of Tennessee - Chattanooga, University of Tennessee - Martin, University of Tennessee Space Institute in Tullahoma, and University of Tennessee Institute for Public Service in Knoxville. In addition to the primary campus in the City, the UT Agricultural Campus houses the University of Tennessee Institute of Agriculture, a statewide administrative unit that includes the College of Veterinary Medicine, the College of Agricultural Sciences and Natural Resources, the Agricultural Extension Service and the Agricultural Experiment Stations.

UT is a major research institution, attracting more than $150 million in externally sponsored programs annually. The Division of Aeromedical Services is one of the country's most respected and comprehensive aeromedical programs. UT is also a co-manager with Battelle Memorial Institute of the nearby Oak Ridge National Laboratory ("ORNL"). UT-Battelle, LLC, was established in 2000 as a private not-for-profit company for the sole purpose of managing and operating the ORNL for the United States Department of Energy ("DOE"). Formed as a 50-50 limited liability partnership between the UT and Battelle Memorial Institute, UT-Battelle, LLC is the legal entity responsible delivering the DOE's research mission at ORNL. Faculty and students experience unparalleled research and learning opportunities at the DOE's largest science and energy lab.

UT conducts externally-funded research totaling more than $300 million annually, including some $17.3 million annually in research sponsored by ORNL. Areas of joint research with ORNL include the Bioenergy Science Center's work on cellulosic ethanol; the Center for Computational Sciences partnership with the National Science Foundation; and the Science

Alliance, with divisions in biological, chemical, physical, and mathematical/computer science. UT/ORNL Joint Institutes and Centers include Biological Sciences, Computational Sciences, Neutron Sciences, Heavy Ion Research and the National Transportation Center.

To meet the growing demand for pharmacists, a second University of Tennessee College of Pharmacy building opened on the Knoxville campus in fall 2007 and enrolled an additional 225 students. The three-story building is adjacent to the Health Science Center's Graduate School of Medicine. The UT College of Pharmacy will extend its reach across the state by adding Clinical Education Centers in Chattanooga, Jackson, Kingsport and Nashville.

The UT System's statewide campuses bring in over $2 billion in annual income to the State and support more than 50,000 jobs. The UT System also generates an estimated $237.6 million in state and local tax revenue per year. Students and visitors attending athletic events at each campus spent approximately $348 million, accounting for $147.3 million in income and 4,879 jobs.

Source: University of Tennessee, UT-Battelle and the News Sentinel.

Johnson University is a private, coeducational institution of higher learning offering associate, bachelor's and master's degrees about 6 miles from the City. Founded in 1893, Johnson University is the second oldest continuing university in America. The purpose of the university is to educate students for specialized Christian ministries with emphasis on the preaching ministry. In the fall of 2015, total enrollment reached 915 for the 175-acre campus.

Source: Johnson University.

Oak Ridge Associated Universities ("ORAU") is a consortium of 98 colleges and universities and a contractor for the DOE located in Oak Ridge, Tennessee. Founded in 1946, ORAU works with its member institutions, which include the UT System. The purposes are to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members. Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. A pioneer in technology transfer, with historic contributions in nuclear medicine and health physics, ORAU today conducts specialized training in nuclear related areas of energy, health and the environment.

Source: Oak Ridge Associated Universities, University of Tennessee at Chattanooga.

Pellissippi State Technical Community College. ("PSTCC") Since its founding in 1974 as State Technical Institute at Knoxville, PSTCC has expanded the teaching of technology, the use of technology in instruction, and the transfer of technology to local business and industry in support of regional economic development. Enrollment for spring 2016 was listed as 9,162. PSTCC continues to support and develop career/technical associate's degrees and institutional certificates, university parallel associate's degree programs, and continuing education opportunities for the citizens of Knox, Blount, and surrounding counties. PSTCC has been named one of the 200 fastest-growing community colleges in the nation, according to Community College Week. PSTCC has released a 2014 report showing the school has pumped more than $341 million annually into the Knoxville-area economy over the last 5 years.

Several campuses make up PSTCC. The main campus is the Pellissippi Campus in west Knoxville. The Division Street Campus and the newer Magnolia Avenue Campus, which opened in 2000, are also in the City. A new $22 million campus was completed in late 2010 in Blount County.

Source: Pellissippi State Technical Community College and TN Higher Education Commission.

Roane State Community College in West Knoxville. Roane State Community College, which began operation in 1971 in Harriman, Tennessee, is a two-year higher education institution which serves a fifteen-county area. Fall 2016 enrollment was 5,636 students. Designed for students who plan to transfer to senior institutions, the Roane State academic transfer curricula include two years of instruction in the humanities, mathematics, natural sciences, and social sciences. Approximately 21 college transfer programs and/or options are offered by the college.

Roane State's 104-acre main campus is centrally located in Roane County where a wide variety of programs are offered. Roane State has nine locations across East Tennessee – the Roane County flagship campus; an Oak Ridge campus; campuses in Campbell, Cumberland, Fentress, Loudon, Morgan and Scott Counties; and a center for health science education in west Knoxville.

Source: Roane State Community College.

South College. South College, formerly Knoxville Business College, is a private institution that has been a part of the City since 1882. The main campus facility is located on Lonas Drive. In 2010, the College opened a second campus in the old Goody's headquarters in Parkside Centre. It has a total enrollment of about 650 students. Throughout its history, South College has endeavored to meet the demands of the East Tennessee business community. South College offers a Master's of Health Science in Physician Assistant Studies and baccalaureate degree programs including Pharmaceutical Science (Pre-Pharmacy), Nursing, Health Science (Radiography/Nuclear Medicine), Elementary Education, Business Administration, and Legal Studies. Current associate degree programs include Radiography, Physical Therapist Assistant, Paralegal Studies, Business Administration, Accounting, and Medical Assisting. Nuclear Medicine and Post-Baccalaureate Program (Elementary Education K-6) are the certificate programs offered.

Source: South College.

The Tennessee Technology Center at Knoxville ("TTC"). TTC is part of a statewide system of 26 vocational-technical schools. TTC meets a Tennessee mandate that no resident is more than 50 miles from a vocational-technical shop. TTC's primary purpose is to meet the occupational and technical training needs of the citizens including employees of existing and prospective businesses and industries in the region. TTC serves the central east region of the State including Knox and Blount Counties. TTC began operations in 1966, and the main campus is located in the County. Fall 2015 enrollment was 1,381 students

Source: Tennessee Technology Center at Knoxville.

Tusculum College Graduate and Professional Studies Program ("Tusculum"). Tusculum maintains offices in the City for its Graduate and Professional Studies Program, in addition to other class sites across East Tennessee. Located in Greeneville, Tusculum is a private college affiliated with the Presbyterian Church. Tusculum was founded in 1794, making it the oldest college in Tennessee and the twenty-eighth oldest college in the nation. Fall 2016 enrollment was 885. The wooded 140-acre Tusculum campus has eight buildings and the Tusculum Arch that are listed on the National Register of Historic Places. Tusculum is one of three colleges in the country to operate on a focused calendar, in which courses are scheduled one at a time.

Source: Tusculum College.

HEALTHCARE

The City serves as a regional medical center for 27-counties in East Tennessee and Kentucky. The available technology, the specialized institutions, and a reputation for quality health care bring people into the City from a 200-mile radius. There are over 2,390 beds in nine acute care hospitals in the County, including three healthcare systems (Covenant Health Care, Tennova Health System and University of Tennessee).

Construction and renovations to existing facilities in the area have made a substantial impact on the local economy. In the early 2000's, the County saw two new hospitals open along with several renovations and expansions of other existing hospitals.

Source: Knox Metropolitan Planning Commission and the News Sentinel.

Covenant Health. Covenant Health is a comprehensive health system established in 1996 by the consolidation of Fort Sanders Health System, Knoxville, Tennessee, and MMC HealthCare System, parent company of Methodist Medical Center of Oak Ridge, Tennessee. With headquarters located in the City, Covenant Health provides comprehensive services throughout East Tennessee. It is also the largest employer in the area. The organization is governed by a voluntary board of directors composed of community leaders and medical professionals.

Covenant Health includes 30 member organizations, nine of which are acute care hospitals in East Tennessee: Fort Sanders Regional Medical Center and Parkwest Medical Center in the City, Methodist Medical Center of Oak Ridge, Fort Loudon Medical Center in Lenoir City, LeConte Medical Center in Sevierville, Roane Medical Center in Harriman, Morristown-Hamblen Healthcare System in Morristown, Cumberland Medical Center in Crossville and Claiborne Medical Center in Tazewell. It also includes Peninsula Hospital, a psychiatric hospital in East Tennessee's Blount County. Covenant Health also operates numerous other healthcare facilities for outpatient clinics, cancer centers, breast centers, behavioral health, rehabilitation, home health and weight management to name a few.

Over the last few years, the largest hospital operator in the area has built new or expanded facilities in Sevier, Loudon, Anderson, Cumberland and Knox counties. It recently finished construction for a $75 million expansion project at Fort Sanders Regional Medical Center in Knoxville as well as a new $50 million hospital in Roane County.

Fort Sanders Regional Medical Center ("Fort Sanders"). Part of Covenant Health, Fort Sanders is a 541-bed full-service acute care hospital with about 350 doctors located in the Fort Sanders community of downtown Knoxville. The hospital was built in 1919 and has about 2,100 employees and had 15,958 admissions in 2014. In 2013, Fort Sanders received national recognition as a comprehensive stroke center, the second Tennessee hospital to receive this award. This certification from the Joint Commission on Accreditation of Healthcare Organizations means that the medical center is recognized as having the infrastructure, staff and training to receive and treat complex cases. Fort Sanders is a regional referral center for neurosurgery, neurological disorders, orthopedics, oncology, cardiology, obstetrics and rehabilitation medicine. Fort Sanders offers a variety of specialized services such as a 24-hour Chest Pain Center, one-day surgery, electrodiagnostics, a Sleep Disorders Center, a Diabetes Center, prenatal education, and sports medicine. A new $150 million expansion was completed for the facility in 2010.

Parkwest Medical Center ("Parkwest"). Part of Covenant Health, Parkwest is the region's only "Top 100 Heart Hospital" (which the hospital has been named eight times). Parkwest has 307 beds with over 600 doctors on staff. The total employment is about 2,200, and there were 16,054 admissions in 2014. The campus includes one of the area's first all-digital catheterization laboratories and a comprehensive breast center with a multidisciplinary approach to women's health. Peninsula Behavioral Health is a division of Parkwest.

Tennova Healthcare. Tennova Healthcare is a for-profit healthcare system and has seven acute care hospitals in the City and the surrounding area. Florida-based Health Management Associates Inc. bought Mercy Health Partners in 2011 and changed the name to Tennova Healthcare. Tennova Healthcare and Health Management Associates were acquired by Community Health System, based in Nashville, TN. Tennova Healthcare is now part of one of the largest for-profit hospital companies in the country.

Tennova Healthcare hospitals are as follows: Physicians Regional Medical Center (Knox County), Turkey Creek Medical Center (Knox County), North Knoxville Medical Center (Knox County), Jefferson Memorial Hospital (Jefferson County), Newport Medical Center (Cocke County), and LaFollette Medical Center (Campbell County), Lakeway Regional Hospital (Hamblen County). Dyersburg Regional Medical Center (Dyer County), Regional Hospital of Jackson (Madison County), Volunteer Community Hospital (Weakley County) and McNairy Regional Hospital (McNairy County), which were all acquired by Tennova in September of 2015.

Physicians Regional Medical Center ("Physicians Regional"). Part of Tennova Healthcare, Physicians Regional is a 401-bed facility with 811 physicians on staff near downtown Knoxville. There are a total of 1,877 employees, and Physicians Regional had 11,627 admissions in 2014. Built in 1930, Physicians Regional has five areas of special expertise: Women's Services, Cancer Care, Orthopedics, Cardiac Care and Neurosciences. (See "RECENT DEVELOPMENTS" for more information.)

North Knoxville Medical Center. Part of Tennova Healthcare, North Knoxville Medical Center opened in the fall of 2007 in the County. The full service facility has 108 beds with 811 physicians on staff. A total of 478 people are employed at the North Knoxville Medical Center, and in 2014 there were 3,675 admissions.

Turkey Creek Medical Center ("Turkey Creek MC"). Part of Tennova Healthcare, Turkey Creek MC has 101 beds with 811 physicians on staff in west Knoxville. There are 523 people employed at the hospital, and in 2014 there were 4,306 admissions. Having opened in 2003, Turkey Creek MC has a 24-hour, full-service, all-digital campus, completely staffed emergency department that cares for men, women and children of all ages. Every patient room is a private room. An intensive care unit, state-of-the-art surgical suites, imaging services, rehabilitation services and specialized staff and physicians bring groundbreaking, comprehensive treatment. Having merged with the neighboring Baptist Hospital for Women, Turkey Creek MC offers labor, delivery, recovery and postpartum suites, backed up by the latest technology. Surgery, mammography, wellness and general care services are all focused on a woman's needs. In the summer of 2008, the open-heart program from Baptist Hospital of East Tennessee moved to Turkey Creek MC, which is also home to the Stokely Heart Pavilion and the Baptist Regional Cancer Center.

East Tennessee Children's Hospital. Located in the City, East Tennessee Children's Hospital is a private, independent, not-for-profit pediatric medical center. There are 152 beds with 428 doctors on staff, of which more than 90 are pediatric subspecialists. A total of 1,992 people are employed at the hospital, and there were 5,828 admissions in 2014. The hospital originally opened in 1937, and is the only Comprehensive Regional Pediatric Center in East Tennessee certified by the State. Pediatric services offered include ICUs, emergency services, outpatient clinics for oncology, hematology, diabetes, cystic fibrosis and a rehabilitation center.

University Health System ("UHS"). The University of Tennessee Medical Center is part of UHS, a regional health system that comprises the UT Medical Center, the new UT Heart Hospital, UT Health Network and various partnerships and joint ventures with physicians and healthcare companies. UHS is affiliated with the University of Tennessee Graduate School of Medicine and numerous regional hospitals and physician organizations. UHS supports and collaborates with the UT Graduate School of Medicine and other academic endeavors as part of its commitment to excellence in education and research.

The *UT Medical Center* in Knoxville is an acute care teaching hospital with 581 beds and more than 450 doctors. The UT Medical Center employs 4,224 people and had 25,397 admissions for 2014. Designated as the region's Level I adult and pediatric Trauma Center by the state of Tennessee, the UT Medical Center provides the highest level of programs and emergency services. Critically ill patients are transported to the UT Medical Center via one of LIFESTAR'S two helicopters.

Special care units such as cardiac care, open heart, medical intensive care, neuro-respiratory, and trauma surgical intensive care are available for patients who require maximum medical attention. A Level IV Intensive Care Nursery, a Pediatric Intensive Care Unit, a newborn nursery and many other programs comprising Children's Health Services enable the UT Medical Center to provide the region's most comprehensive medical services for infants and children. The UT Medical Center also serves as the Regional Perinatal Center. The new Heart Hospital opened in 2010, and construction on the Cancer Institute was completed in 2012. See "RECENT DEVELOPMENTS" for new construction on the facility.

Source: Covenant Health, Mercy Health Partners, East TN Children's Hospital, University Health Center and the News Sentinel.

SCIENCE AND ENERGY

History

The City of Oak Ridge, located approximately twenty-five (25) miles from the City, has a unique history. This area was selected by the United States government in 1942 as the location for its production plants for uranium 235, a component of the first atomic bomb. The original town site was built during World War II to house and furnish necessary facilities for the employees of the uranium plants. This project (known as the "Manhattan Project") was transferred to the Atomic Energy Commission in 1947, and the community was operated by contractors under the control of the Atomic Energy Commission. In 1955, the Atomic Energy Commission sold the homes and land to the residents. By 1959, the residents voted in favor of incorporation under a modified city manager-council form of government.

Since the 1940's, the nuclear industry has been the largest employer for the City of Oak Ridge and Roane and Anderson Counties when a weapons fabrication division was built by the U.S. Army Corps of Engineers. As part of the secret World War II "Manhattan Project", the early task of the plant was the separation of fissionable uranium-235 from the more stable uranium-238 by an electro-magnetic process to be utilized in the world's first atomic bomb. Some 80,000 workers were hired for emergency construction of the laboratories and offices on the 56,000-acre site. At the peak of production during the war, 23,000 employees kept the separation units working at a cost of $500 million for the entire project.

Today, the DOE occupies approximately 33,000 acres and almost 1,200 buildings within the Oak Ridge city limits, and employs over 13,000 in engineering, skilled and semi-skilled crafts, technical and administrative support. Since October 1999, the DOE has contracted with the UT and Battelle Memorial Institute to manage the ORNL. UT-Battelle, LLC began management of the lab on June 1, 2000. Consolidated Nuclear Security, a Bechtel-led contractor team, took over management of the Y-12 nuclear weapons plant effective July 1, 2014 (BWXT, Inc. was the appointed contractor for the Y-12 Plant). DOE awarded its environmental cleanup contract to Bechtel Jacobs from 1997 to 2011. URS-CH2M Oak Ridge took over the cleanup contract in 2011.

Research

The extensive energy research and development conducted by private and public agencies make Oak Ridge one of the world’s great research centers. The presence of UT, the ORNL, ORAU and the Tennessee Valley Authority (the “TVA”) makes Oak Ridge a prime location for research facilities, as well as technology-based and conventional manufacturing industries. The DOE facilities in Oak Ridge have attracted a large number of professionals and their families. ORNL campus also houses visiting scientists and researchers that come to work at the world-class facility in an $8.9 million Guest House (built in 2010) with 47 units. Oak Ridge is prepared to accommodate families from abroad, and the school system is equipped to ease language and cultural differences.

BioEnergy Sciences Center (the “BESC”). BESC is one of only three sites in the country operated by one of the DOE’s new bioenergy research centers. It opened in ORNL in 2007. BESC works to accelerate research in the development of cellulosic ethanol and other biofuels, and make biofuel production cost competitive on a national scale. The new site received $135 million in federal funding. UT serves as one of the academic partners, providing specialized instrumentation, plant breeding technologies and new microbe discovery. Energy crops like switchgrass, which can be grown on marginal crop land, can produce affordable, domestic renewable fuel without raising food or feed costs. The BESC is dedicated to studying how to economically break down the cellulose in those sources to convert it into usable sugars for ethanol production.

Roane and Anderson Counties are also able to benefit from many other advanced technology and research and development based companies located in the area. UT, the Technology 2020 project and TVA are some of these companies that are in the area.

Oak Ridge National Lab. The ORNL is a multiprogram science and technology laboratory managed for the DOE by UT-Battelle, LLC. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions that strengthen the nation's leadership in key areas of science; increase the availability of clean, abundant energy; restore and protect the environment; and contribute to national security. ORNL also performs other work for the DOE, including isotope production, information management, and technical program management, and provides research and technical assistance to other organizations. The laboratory is a program of DOE's Oak Ridge Field Office.

ORNL also boasts having the Spallation Neutron Source accelerator project and several supercomputers for scientific purposes. These unique projects bring about 3,000 scientists to visit each year for varying periods of time, and numerous small industries to be spun off from the experiments and findings. Each job created is expected to have an impact on housing, retail banking, automobile and transportation, hotels, restaurants, hospitals, and business services.

The world's most powerful neutron science project is the *Spallation Neutron Source* (the "SNS") at ORNL. The giant research complex, spread across 75 acres on Chestnut Ridge near the main ORNL campus, is the world's top source of neutrons for experiments. The SNS is an accelerator-based neutron source built in Roane County by the DOE. The SNS provides the most intense pulsed neutron beams in the world for scientific research and industrial development. At a total cost of $1.4 billion, construction began in 1999 and was completed in 2006. In 2009, SNS reached full power when it set the world record in producing beam power three times more powerful than the previous world record. More neutrons are produced with a higher beam power.

Neutron-scattering research impacts much of everyday life. Jets, credit cards, pocket calculators, compact discs, computer disks, and magnetic recording tapes, shatter-proof windshields, adjustable seats, and satellite weather information for forecasts have all been improved by neutron-scattering research. Neutron research also helps researchers improve materials used in high-temperature superconductors, powerful lightweight magnets, aluminum bridge decks, and stronger, lighter plastic products. It is also anticipated that the medical field will be impacted with new drugs and medicines expected from experiments at the SNS.

ORNL is also completing a series of upgrades at the *High Flux Isotope Reactor*. This ORNL facility is sometimes referred to as the lab's "other" billion-dollar machine. It is the world's most powerful research reactor, and it is used to perform experiments similar to - but different from - those to be done at the Spallation Neutron Source.

ORNL's *Supercomputers* are housed in a 170,000-square-foot facility that includes 449 staff and 40,000 square feet of space for computer systems and data storage. The facility will house or has housed four supercomputers, the planned “Summit”, the “Titan” (currently the world’s second fastest supercomputer), the “Kraken”, and the now dismantled “Jaguar” (which at one point was the world’s fastest supercomputer). The machines will work on breakthrough discoveries in biology, fusion energy, climate prediction, nanoscience and many other fields that will fundamentally change both science and its impact across society.

The DOE awarded IBM an estimated $162 million contract to build the new “Summit” supercomputer (expected to be completed in 2017) at ORNL to be used for a wide range of scientific applications including combustion science, climate change, energy storage and nuclear power. The “Summit” is expected to be five times faster than the “Titan” supercomputer already online at ORNL, which was ranked the fastest supercomputer in the world in 2012.

The National Oceanic and Atmospheric Administration (the “NOAA”) sponsors the supercomputer, called the “Titan”, which was funded with resources provided by the American Recovery and Reinvestment Act of 2009 (“ARRA”). NOAA awarded Cray and ORNL a $47 million contract to design and build the Titan to work on climate research. The Titan came online in late 2012 and was listed as the world’s fastest computer in the same year, marking the fourth time a computer from ORNL has achieved that distinction since 1953. The Titan’s purpose is to support research in energy, climate change, efficient engines and materials science. The Titan is a 17.5-petaflops machine, which means it is capable of a peak performance of about 17,500 trillion (or 17.5 quadrillion) mathematical calculations per second. That speed is about 10 times the capability of the Titan’s predecessor, the “Jaguar”, which at one time was the world's fastest computer. The total cost of the Titan was estimated to be about $100 million, but about $20 million was saved by reusing much of the “Jaguar” structure.

The DOE and the National Science Foundation (the “NSF”) sponsor the supercomputer “Kraken” which came online in 2009. The NSF awarded UT, ORNL and other institutions a $65 million grant to build the Kraken to work on a range of scientific challenges, such as climate change and new medicines. The Kraken is housed with the ORNL’s Titan.

A dedicated effort by the DOE to transfer technology to the private sector that was heretofore held as proprietary to the U.S. Government alone has led to an unparalleled growth in new business development in the area. Licenses have been granted to existing firms as well as start-up firms to manufacture for commercial use products using state-of-the-art technology in robotics, ceramics and nuclear medicine.

Through interagency agreements, DOE's Oak Ridge facilities have launched a highly successful "work for others" program. Local firms contract with numerous federal agencies to provide services and products. The value of these contracts have grown from approximately $50 million in 1983 to $270 million in recent years.

Technology 2020. The Technology 2020 project was initiated in 1993 to capitalize on the unique resources of the East Tennessee region: the presence of the ORNL, UT, the headquarters of the TVA, and a significant number of both large and small technology companies in the region. A $4.5 million investment has been made by DOE, South Central Bell, the Tennessee Public Service Commission and Lockheed-Martin to set up a regional telecommunications laboratory and has been termed the area's "on-ramp to the information highway". This economic development resource center is located in Oak Ridge's Commerce Park. An 18,000 square foot facility has been constructed on the 5.2 acre site. The facility is used for testing and demonstrating new communications technologies and applications. It offers video conferencing, training and multi-media presentation capabilities and a new business incubator for emerging companies. The facility is expected to be particularly important to rural communities that might not otherwise have access to advanced communications resources.

Tennessee Valley Authority (the "TVA"). TVA provides support, technology, expertise, and financial resources to existing businesses and industries in the Tennessee Valley to help them grow and be more efficient and profitable. These resources include technical assistance, low-interest loans, and other tools needed by businesses for successful operation.

University of Tennessee – Knoxville. UTK is home to a wide array of vigorous programs doing research on issues vital to the community, the state, the nation, and the world. UTK has collaborative relationships with public and private agencies including ORNL, Battelle Memorial Institute (forming UT-Battelle, LLC), St. Jude Children's Research Hospital, the Memphis Bioworks Foundation, and the Boston-Baskin Cancer group (forming UT Cancer Institute).

National Institute for Mathematical and Biological Synthesis (NIMBioS) is a first-of-its-kind institute dedicated to combining mathematics and biology to solve problems in both scientific fields. The center is funded by a 2008 $16 million award from the National Science Foundation and is located at UTK. A unique aspect of NIMBioS will be its partnership with the Great Smoky Mountains National Park. The park and its Twin Creeks Science Center play a key role in the institute's work, with the park serving as a testing ground for many of the ideas that come from NIMBioS. Partners in NIMBioS include the US Department of Agriculture and the US Department of Homeland Security, IBM and ESRI, a developer of software and technology related to geographic information systems. It draws over 600 researchers each year to Knoxville.

Source: City of Oak Ridge, ORNL, Y-12 National Security Complex and the Knoxville News Sentinel.

Nuclear

Integrated Facilities Disposition Program. The DOE approved a massive $18 billion Oak Ridge cleanup campaign. The cleanup program would demolish more than 400 contaminated building at ORNL and the Y-12 nuclear weapons plan. The program would also focus on mitigating polluted ground water at the sites and other actions to reduce environmental damage. The work began in 2011 and could take up to 45 years to complete.

In 2015, $424 million was set aside for the environmental cleanup activities in Oak Ridge. ARRA provided the DOE Oak Ridge's office with $1.9 billion for environmental cleanup projects. The stimulus money sent directly for projects in Oak Ridge, $1.2 billion, saved or created about 3,863 new jobs through sub-contracting construction-type jobs as well as technical and specialty positions associated with handling radioactive materials and evaluating environmental risks. The clean-up money was divided among four sites: $239 million to ORNL, $292 million to Y-12, $144 million to East Tennessee Technology Park and $80 million to the Transuranic Waste Processing Center. At Y-12 alone, seven cleanup projects created 2,000 jobs, demolished about 150,000 square feet of old buildings and got rid of about 74,000 cubic meters of waste.

A former gaseous diffusion building was torn down by the DOE as part of its program to convert the former K-25 site for use by private industry. The K-29 Building was part of a series of mammoth buildings to enrich uranium for weapons and fuel for nuclear power plants. The building went into operation in 1951 and was shut down in 1987. The building in size equates to 6 1/2 football fields under one roof. Demolition was completed at the end of 2007. The gigantic K-25 building, a mile-long U-shaped structure that processed the uranium in WWII, was demolished in 2010.

<u>Y-12 National Security Complex.</u> The Y-12 National Security Complex is another large federal plant in Oak Ridge. The ongoing functions of the Y-12 plant are to support the DOE's weapons design labs, recover U-235 from spent nuclear weapons and provide support to other government agencies.

Y-12 has been undergoing a major modernization program. Y-12 is a key facility in the U.S. Nuclear Weapons Complex and is responsible for ensuring the safety, reliability, and security of the nuclear weapons stockpile and serves as the nation's primary repository of highly enriched uranium. Y-12 houses the country's stockpile of bomb-grade uranium, builds uranium bomb parts and dismantles nuclear weapon systems as needed to support a much smaller nuclear arsenal. National Nuclear Security Administration's (the "NNSA") is planning to transform the nuclear weapons complex to be smaller, more efficient and more cost effective. The goal is by 2020 to have only two facilities where there used to be 700 buildings.

In 2016, two years ahead of schedule, the disposal of over 2,200 containers of stored radioactive and hazardous waste were disposed from Y-12. Contractors have demolished dozens of World War II era buildings at Y-12, about a million square feet since 2001, to reduce the surveillance and maintenance costs, and to support the new programs. Some new office buildings already have been built, including the Jack Case Center that holds about a third of the workforce, or around 1,500 employees. This $58 million, 420,000-square-foot office building was completed in the summer of 2007. A new 137,000-square-foot visitor's center and auditorium, for about $18 million, was also completed in 2007.

A planned $120 Million water treatment plant to capture Y-12 mercury runoff is expected to begin construction in 2017 and begin filtering 1,500 gallon a minute of water by 2020.

The $549 million *Highly Enriched Uranium Materials Facility* at Y-12, a storage complex for weapons-grade uranium, was completed in late 2008. This storage facility replaced multiple aging facilities and allows for storage of its uranium stocks in one central location that represents maximized physical security with minimal vulnerabilities and operating costs. It is designed to protect the large cache of U-235 against any type of terrorist assault. The facility is currently over 85% storage capacity of bomb-grade uranium.

The *Uranium Processing Facility* (the "UPF") Project, cornerstone of Y-12's new modernization strategy, will replace current enriched uranium and other processing operations. It will replace Y-12's main production center and cost billions of dollars. The design phase began in 2006, construction began in 2009, and should be operation by 2025. Construction of the UPF will accelerate consolidation of aging facilities, bringing production operations currently housed in multiple buildings together, reducing the size of the plant's highest security area by 90 percent, improving the overall security posture, making the plant more secure and saving millions of dollars in annual operating costs.

Source: City of Oak Ridge, ORNL, Y-12 National Security Complex and the Knoxville News Sentinel.

Solar

Tennessee has seen unprecedented growth in the solar business with the introduction of state and federal incentives for solar power generation (the *Volunteer State Solar Initiative*) and an expansion of the TVA's buy-back program for the power generated by solar and other renewable technologies. The nationwide solar industry grew 69 percent during 2011. In Tennessee the amount of solar energy being generated went from about one megawatt in 2009 to over 77 megawatts in 2013. In 2015 the County announced plans to install 5 megawatts of solar photovoltaic systems on the rooftops of several County buildings to provide more than $29 million in energy savings to the county over the next three decades. (See "RECENT DEVELOPMENTS" for more information.)

Located in Knoxville, the *Tennessee Solar Institute* is part of the new Volunteer State Solar Initiative with UTK and ORNL. The objective of the initiative will be to find ways of reducing the cost of producing solar energy and ways to store energy until needed. Among other purposes, it brings together scientists, engineers and technical experts with business leaders, policy makers and industry workers to help speed the deployment of solar photovoltaic technology. It is designed to be a home for regional and state initiatives that foster the creation of new businesses.

Tennessee has attracted a several large solar manufactures to the state. A 2011 report by the Tennessee Solar Institute identified more than 200 organizations making up the state's solar industry, including 174 for-profit and 62 nonprofit businesses. Thirty-three of those businesses joined since 2009, with 15 setting up shop in 2010. There are also several more multi-megawatt solar farms either completed or under construction in the state.

East Tennessee has several manufacturing plants. In East Knoxville *Efficient Energy* built a 1.2 megawatt solar panel site with Natural Energy Group to be used for local research and education (see "RECENT DEVELOPMENTS"). In Roane County near ORNL, a smaller array of 200-kilowatts was online in 2012 with plans to expand into the Brightfeld One Project. In Bradley County, the $2.5 billion *Wacker Polysilicon* plant, which opened in April 2016, created approximately 650 new jobs to produce silicon used for the solar energy industry. Also in Bradley County, a new $30 million, 9.5 megawatts solar park is providing power to the *Volkswagen Plant* in Chattanooga. It became Tennessee's largest solar array when it went online in 2012.

In Middle Tennessee (Montgomery County), the 1,215-acre, $1.2 billion dollar polycrystalline silicon manufacturing plant, Hemlock Semicondutor, closed in 2013 just prior to launching production. This resulted in 300 people being laid off due to significant oversupply in the polysilicone industry and the threat of protective tariffs on its products sold into China. The plant closed before production began, but the plant may start producing at any time once the market improves.

In West Tennessee, Sharp Electronics in Shelby County (Memphis) has a large array consisting of nearly 4,160 solar panels for $4.3 million that cover the plant's roof to generate about 200 kilowatts of power. Sharp Electronics also has produced over 2 million solar panels since 2003 and has over 480 employees. The West Tennessee Solar Farm in Haywood County has two solar arrays that came online in 2012: a $31 million, five megawatt generating facility uses more than 21,000 panels, and another solar array that generates 1 megawatts of energy.

Source: Memphis Commercial Appeal, the News Sentinel and the University of Tennessee.

MANUFACTURING AND COMMERCE

Because of its central location in the eastern United States, the Knoxville area serves thousands of industrial and commercial customers in a concentrated eight-state area. It is within 500 miles of approximately one-third of the population of the United States. The City for many years has been known as one of the south's leading wholesale markets. Located within the County and City are approximately 971 wholesale and distribution houses, 1,629 retail establishments and 5,830 service industries.

In 2015 Forbes magazine listed Knoxville as the second most affordable city in America, based on housing prices, living costs and the consumer price index. In 2012 Knoxville was ranked tenth in economic-growth potential and eighth on the nation's fastest-growing cities in the Business Facilities publication.

Economic diversity characterizes Knoxville's landscape of commerce and industry, with companies like media giant Scripps Networks Interactive (HGTV, Food, Travel, DIY, Cooking, and GAC) and Sysco Corporation (largest food service marketer and distributor in North America) calling the area home. Also there are national and global leaders Clayton Homes, Brunswick Corporation, Keurig Green Mountain, Bush Brothers, Pilot Flying J, and Ruby Tuesday.

The County has seven business parks and a Technology Corridor to meet a wide range of corporate facility needs. The Forks of The River Industrial Park has 1,615 acres with only 49 acres still available. EastBridge Business Park has 807 acres with about 153 left for development. WestBridge Business Park has 252 acres with about 11 acres left. Pellissippi Corporate Center has about 159 acres with 82 acres left. Hardin Business Park is a new light industrial park with the total 46 acres still available. CenterPoint Business Park is a commercial park full with about 56 acres. The 44-acre I-275 Business Park was sold to Sysco Corp.

A proposed 275-acre business park off Midway Road was approved by the Metropolitan Planning Commission and the Knox County Commission at the end of 2015. It is expected to be several years before any development occurs, but when complete, it could add about 2,200 new jobs to the area.

The County had about 11,397 businesses and the MSA had 18,140 businesses operating in 2014. In 2014, 2,502 building permits totaled $633,130 million. There were 614 industrial buildings totaling over 32.9 million in square feet in 2014. The vacancy rate for these buildings was 16.4%. The County had 401 manufacturing facilities in 2014 and the MSA had 780 for the same period.

Knoxville-Oak Ridge Innovation Valley Inc. is an investor-directed program for five counties designed to recruit, retain and expand business growth throughout the Innovation Valley region. The organization is focused on technology-led economic development, as well as education and workforce development. These two areas of focus represent key differentiators in this plan of work.

Source: Knox News Sentinel and Knox County Metro Planning Commission 2015.

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LARGEST EMPLOYERS

The major areas of employment in Knox County are the services, retail trade and government. Comparatively, both the State and the Nation show a heavier concentration in manufacturing than does Knox County.

The following is a list of the major sources of employment in the Knoxville MSA:

Ten Largest Employers in the County

Name	County	Industry	Employment
Covenant Health Alliance[1]	Knox	Health Care	10,458
Knox County Public Schools	Knox	Education	6,804
The University of TN, Knoxville	Knox	Education	6,660
University of TN Medical Center	Knox	Health Care	4,224
Tennova Health System[2]	Knox	Health Care	4,067
State of Tennessee	Knox	Regional Government	3,226
Knox County	Knox	Government	3,014
City of Knoxville	Knox	Government	2,828
K-VA-T Food Stores (Food City)	Knox	Retail	2,668
East TN Children's Hospital	Knox	Health Care	1,900

[1] Includes Ft. Sanders Reg Med Center, Parkwest, Methodist Med Center & all other Covenant Hospitals in the area.
[2] Includes all Tennova Health System hospitals in the area.
Source: Greater Knoxville Chamber of Commerce and the News Sentinel – 2015.

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Major Employers in the Knoxville MSA

Name	County	Industry	Employment
Covenant Health Alliance[1]	Knox	Health Care	10,458
B&W Y-12[2]	Roane	National Security	7,000
Knox County Public Schools	Knox	Education	6,804
The University of TN, Knoxville	Knox	Education	6,660
Oak Ridge National Lab[2]	Roane	National Security	4,374
University of TN Medical Center	Knox	Health Care	4,224
Wal-Mart Stores	MSA	Retail	4,100
Tennova Health System[3]	Knox	Health Care	4,067
Denso[4]	Blount	Automotive Parts	3,500
State of Tennessee	Knox	Regional Government	3,226
Knox County	Knox	Government	3,014
Kroger Co	MSA	Retail	2,851
City of Knoxville	Knox	Government	2,828
Clayton Homes	Blount	Mobile Homes	2,712
K-VA-T Food Stores (Food City)	Knox	Retail	2,668
Dollywood Co.[5]	Sevier	Amusement Park	2,500
Sevier County Schools	Sevier	Education	2,500
Lowe’s Home Improvement	MSA	Retail	2,421
Blount Memorial Hospital	Blount	Healthcare	2,396
East TN Children’s Hospital	Knox	Health Care	1,900
McGhee Tyson ANG Base	Blount	Air National Guard Unit	1,717
Team Health Inc.	Knox	Healthcare	1,640
Tennessee Valley Authority[6]	Knox	Power	1,600
U.S. Postal Service	MSA	Mail Service	1,545
Pilot / Flying J	Knox	Fuel and Travel Centers	1,529
Cracker Barrel	MSA	Restaurant	1,467
United Parcel Service	Knox	Transportation	1,450
Copper Cellar Corp	Knox	Restaurants	1,265
Summit Medical Group	Knox	Health Care Providers	1,220
Blount County Schools	Blount	Education	1,200
Elavon	Knox	Credit Card Processing	1,200
Brothers Management	Knox	McDonalds	1,200
ALCOA[7]	Blount	Aluminum Ingot, Coiled Steel	1,176
Roane County Schools	Roane	Public School System	1,150
CVS Caremark Inc.	MSA	Retail	1,100
Jewelry Television	Knox	Home-Shopping Cable Network	1,100
Darden Restaurants	MSA	Restaurants	1,080

Name	County	Industry	Employment
Anderson County Schools	Anderson	Education	1,050
Scripps Networks (HGTV)	Knox	Cable Networks	1,050
Target Co.	MSA	Retail	1,045
Home Depot	MSA	Retail	1,041
Walgreens Co.	MSA	Retail	1,000
Knoxville Utilities Board	Knox	Utilities	960
Southeast Foods Co.	MSA	Wendy's restaurants	959
Green Mountain Coffee Roasters	Knox	Manufacture	950
Oak Ridge Associated Universities[2]	Roane	National Security	933
Aubrey's Restaurants	Knox	Restaurants	925
Sears, Roebuck & Co.	MSA	Retail	903
Pellissippi State Tech. College	Knox	Education	785
First Tennessee Bank	Knox	Banking	773
SL Tennessee	Anderson	Auto Parts	750
Rural Metro – Tennessee	Knox	Fire and Emergency Service	750
Helen Ross McNabb Center	Knox	Mental Healthcare	750

[1] Includes Ft. Sanders Reg Med Center, Parkwest, Methodist Med Center & all other Covenant Hospitals in the area.
[2] Joint venture of University of Tennessee and Battelle
[3] Includes all Tennova Health System hospitals in the area.
[4] Headquarters based in Blount Co., but employment excludes some 874 employees working in McMinn Co.
[5] Employment figure is based on Operating season, it drops to around 300 during the off-season.
[6] Includes Corporate headquarters in Knoxville, Bull Run Steam Plant, Norris and Corryton.
[7] Includes some employees working in Knox Co.

Source: Dept. of Economic & Community Development, the News Sentinel & Anderson County Audit - 2015.

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EMPLOYMENT INFORMATION

For the month of October 2016, the unemployment rate for Knoxville stood at 4.5% with 92,510 persons employed out of a labor force of 96,840. For the month of October 2016, the unemployment rate for Knox County stood at 4.1% with 228,580 persons employed out of a labor force of 238,430.

The Knoxville MSA's unemployment for October 2016 was at 4.6% with 402,770 persons employed out of a labor force of 422,100. As of October 2016, the unemployment rate in the Knoxville-Sevierville-Harriman-LaFollette CSA stood at 4.6%, representing 515,490 persons employed out of a workforce of 540,570.

Unemployment

	Annual Average **2011**	Annual Average **2012**	Annual Average **2013**	Annual Average **2014**	Annual Average **2015**
National	8.9%	8.1%	7.4%	6.2%	5.3%
Tennessee	9.2%	8.0%	8.2%	6.7%	5.8%
Knoxville	**8.3%**	**7.4%**	**7.8%**	**6.1%**	**5.4%**
Index vs. National	93	91	105	98	102
Index vs. State	90	92	95	91	93
Knox County	**6.9%**	**6.3%**	**6.6%**	**5.5%**	**4.8%**
Index vs. National	77	78	89	89	102
Index vs. State	75	79	80	82	83
Knoxville MSA	**7.3%**	**6.6%**	**6.9%**	**6.2%**	**5.4%**
Index vs. National	82	82	93	100	102
Index vs. State	79	83	84	93	93
Knoxville-Sevierville-Harriman CSA	**8.3%**	**7.5%**	**7.7%**	**6.5%**	**6.5%**
Index vs. National	93	93	104	105	123
Index vs. State	90	94	94	97	112

Source: Tennessee Department of Employment Security, CPS Labor Force Estimates Summary.

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A diversified economy is credited for the stability of local employment and wages. Employment by industry (excluding self-employed) for the Knoxville MSA in 2014:

Industry	Employment Number	Percentage
Goods Producing	**52,326**	**15.2%**
Agriculture/Forestry/Fishing/Hunting	1,284	0.4%
Construction	16,679	4.6%
Manufacturing	37,110	10.2%
Natural Resources/Mining	253	0.1%
Service Providing	**308,885**	**84.8%**
Accommodation /Food Services	35,661	9.8%
Administrative/Support/Waste Management	29,778	8.2%
Arts/Entertainment/Recreation	4,609	1.3%
Educational Services	34,875	9.6%
Finance/Insurance	13,614	3.7%
Health Care/Social Assistance	51,133	14.0%
Information	6,542	1.8%
Management of Companies/Enterprises	5,064	1.4%
Other Services (excludes Public Administration)	10,472	2.9%
Professional/Scientific/Technical Services	23,843	6.5%
Public Administration	10,144	2.8%
Real Estate/Rental/Leasing	4,305	1.2%
Retail Trade	47,071	12.9%
Transportation/Warehousing	12,457	3.4%
Utilities	2,484	0.7%
Wholesale Trade	16,833	4.6%
TOTAL	**364,211**	**100.0%**

Source: Knoxville-Knox County Metropolitan Planning Commission.

ECONOMIC DATA

The quality of life, low cost of living and excellent transportation facilities are among the factors that attract firms to the Knoxville area. Telecommunications is a field that is rapidly growing in the area. Several national firms, Hospitality Franchise Systems (Days Inn), Talbots, Whirlpool and Sears have established telecommunication centers in Knoxville. The City has put significant emphasis on attracting companies to the area and on the expansion of existing facilities. Companies which have their corporate headquarters in Knoxville include Pilot Flying

J, Clayton Homes, Scripps Networks, Anchor Advanced Products, Inc., Regal Cinemas and Bandit Lites.

Leisure Boat Manufacturing. Due to the TVA system of lakes and rivers, East Tennessee is an excellent place to test boats without worrying about hurricanes while being near the Interstate crossroads. Channelization of the Tennessee River to a 9-foot minimum navigable depth from its junction with the Ohio River at Paducah, Kentucky to the City gives the surrounding communities the benefits of year round, low cost water transportation and a port on the nation's 10,000 mile-inland waterway system. It takes a week to deliver the yachts too large for the interstate from the reservoir down the series of locks on the Tennessee River, along the Tennessee-Tombigbee Waterway, then on to the Gulf of Mexico and beyond. This system formed largely by the Mississippi River and its tributaries, effectively links the River with the Great Lakes to the north and the Gulf of Mexico to the south.

Boat manufacturers in the area listed by county are below:

Knox County:	Bullet Boats, and Sailabration Houseboats
Monroe County:	Sea Ray Boats, Mastercraft Boats, Yamaha-TWI and Bryant Boats
Blount County:	Skier's Choice, Allison and Stroker Boats
Loudon County:	Malibu Boats and Christensen Shipyards
Cumberland County:	Leisure Kraft Pontoons
Campbell County:	Norris Craft Boat Company

The Pavilion at Turkey Creek ("Turkey Creek"). Turkey Creek is the largest single commercial development ever built in the metropolitan area of Knoxville. Designed for mixed use and beautifully landscaped, Turkey Creek boasts more than 300 acres of space zoned for retail shopping outlets, medical facilities, theaters, office space, banks, restaurants and hotels. The developers of Turkey Creek also created a 58-acre nature preserve and designed greenways throughout the site. Being only three miles from the junction of Interstate 75 and 40 to the west and 14 miles from downtown Knoxville makes the site a quick drive from the urban center, suburban Knoxville, and rural counties.

Historically, due to the County's predominantly commercial economic base, the County's level of per capita income has exceeded the State level each year. On the following page is a chart showing the per capital personal income for the County, the MSA and the CSA of the area.

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Per Capita Personal Income

	2010	2011	2012	2013	2014
National	$40,277	$42,453	$44,266	$44,438	$46,049
Tennessee	$35,601	$37,323	$39,137	$39,312	$40,457
Knox County	**$37,673**	**$40,142**	**$42,290**	**$41,752**	**$43,012**
Index vs. National	94	95	96	94	93
Index vs. State	106	108	108	106	106
Knoxville MSA	$34,799	$36,850	$38,557	$38,359	$39,530
Index vs. National	86	87	87	86	86
Index vs. State	98	99	99	98	98
Knoxville-Sevierville-Harriman CSA	$33,312	$35,215	$36,675	$36,614	$37,718
Index vs. National	83	83	83	82	82
Index vs. State	94	94	94	93	93

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

RECREATION AND TOURISM

Although industry is frequently considered the core of an economic base, secondary and tertiary activities also make important contributions to economic development. The convention and tourist business contribute to the City's economic base in the sense that income is drawn into the region resulting in employment and investment opportunities in tourist-related facilities.

This influx in tourist related income provides stimulus to economic development in the area. In recognition of the important role tourism plays in the economy of the County, local authorities created Visit Knoxville. The organization’s purpose is to encourage tourism and tourist-related activity.

Sports. The County has over 6,200 acres of park and recreation space, including 25 recreation centers, seven senior citizen centers, three skateparks, 10 public golf courses, and approximately 157 miles of greenway and walking trails. Just three miles from downtown is 1,000 forested acres and 40 miles of multiuse trails known as Knoxville Urban Wilderness.

The Tennessee Smokies provide AA minor league baseball in neighboring Sevier County. The Knoxville Ice Bears provide professional hockey at the Coliseum October through March. National championship UTK sports teams, including the 2007 and 2008 NCAA National Champions Lady Vols, draw thousands of enthusiasts to games each year. The City is also home to the Women’s Basketball Hall of Fame.

State and National Parks. The County is the principal gateway area to the Great Smoky Mountains National Park (GSMNP), located 40 miles to the southeast. The beauty of the Great Smoky Mountains has always attracted visitors to this region. There are over 500,000 acres that make up the nation's most visited National Park, extending over the states of Tennessee and North Carolina. The GSMNP received over 10 million visitors in 2015, more than twice the number of any other national park in the country. Major attractions in the Smokies are Gatlinburg (40 miles southeast of the City), a tourist town in the mountains with overnight accommodations for 60,000 people, and Pigeon Forge (20 miles southeast of the City), a tourist town at the foothills of the mountain with overnight accommodations for 40,000 people. Numerous restaurants, gift and craft shops, along with ski lodge, ski lifts and tramway, make Gatlinburg a year-round resort town. Pigeon Forge is known for being home to hundreds of retail outlets and Dollywood, a theme park named for the country music singer, Dolly Parton.

Other parks and recreational areas in the Greater Knoxville area include: Big South Fork National River and Recreational Area 100,000 acres; Frozen Head State Natural Area 11,562 acres; Norris Dam State Resort Park 4,000 acres; Big Ridge State Park 3,687 acres; Cumberland Mountain State Park 1,720 acres; Panther Creek State Park 1,400 acres; Cove Lake State Recreational Area 667 acres; Roan Mountain State Resort Park 600 acres; Fort Loudon State Historical Area 500 acres; Indian Mountain State Park 213 acres; Warriors' Path State Recreational Park 500 acres; Trail of the Lonesome Pine: State Scenic Trail 35 miles; and Cumberland Trail: Section II: Tennessee Scenic Trails System Act 31 miles.

Lakes and Wildlife. Seven TVA lakes surround Knoxville and provide year-round fishing and boating. There are no closed seasons on TVA waterways. Area lakes provide over 3,425 miles of shoreline and 266 square miles of water surface.

Alpine Skiing. Ober Gatlinburg Ski Resort in Sevier County and Cumberland Gardens Resort in nearby Cumberland County offer convenient facilities for winter skiing.

Conventions, Events and Festivals. Special seasonal events include the Dogwood Arts Festival in the spring and December's celebration, Christmas in the City. Knoxville supports an active tourism and convention trade with a 500,000-square-foot convention center located downtown at World's Fair Park. Other local facilities are a large civic coliseum/auditorium, two exhibition halls, and UTK's 22,000-seat Thompson Boling Arena.

Cultural Activities. The General James White Memorial Civic Auditorium and Coliseum Complex, the historic Tennessee Theatre and the Bijou Theater host a variety of performances, including the Knoxville Symphony Orchestra, touring Broadway productions, ice shows, circuses, concerts of all types and the professional hockey team, The Knoxville Ice Bears. Local radio station WDVX hosts a live radio broadcast weekdays downtown called "The Blue Plate Special" where nationally known artists and area performers appear free of charge.

The UTK Theaters continue to provide a wealth of entertainment and culture to the region. The Clarence Brown Theater, UTK's premier performance space, seats 600 in a proscenium theater. The Clarence Brown Theater Company is dedicated to the classics of the stage and produces three full scale and one or two touring productions each season. The Carousel Theater is UTK's smaller theater which holds 250-300 people.

The Knoxville Museum of Art and the Emporium Center for Arts and Culture feature changing exhibits throughout the year, while the area's libraries, historic sites, and museums, such as East Tennessee History Center, McClung Museum of Natural History and Culture, Museum of Appalachia, and Beck Cultural Center, celebrate regional heritage.

Other popular events in Knoxville are presented by the Knoxville Symphony, Knoxville Chamber Orchestra, Knoxville Community Bank, Knoxville Opera Company, the City Ballet, the Appalachian Ballet, Metropolitan Dance Theater, the Knoxville Ballet, the Tennessee Stage Company, the Community Theater, the Knoxville Choral Society, Sidewalk Dance Company and the Children's Dance Ensemble, the only professional dance troupe for children in the country.

Ijams Nature Center. Ijams Nature Center is a nonprofit environmental education and resource center located on 300 acres on the banks of the Tennessee River in South Knoxville. The area encompasses woods, meadows, sinkholes, a spring-fed pond, and informal perennial gardens connected by a series of trails. The park has been developed to display East Tennessee's ecological systems at work and provide a conservation area for wildlife indigenous to the park. A number of high-quality programs, events, and environmental information are available to schools, the media and the general public.

Zoo Knoxville. Zoo Knoxville is recognized as one of the top 20 zoos in America. It is located on 80 acres and has more than 1,000 species of animals. Zoo Knoxville has the largest "big cat" collection in the United States and is home to the first African Elephant birth in the United States. Zoo Knoxville is also home to the newly developed Gorilla Valley, where two baby gorillas were born during the summer of 2015 and another was born in September of 2016. The gorillas are the first of the endangered species to be born at the park and the first born in Tennessee in 30 years. Zoo Knoxville has a collection of red pandas and is the world leader in captive breeding of this rare breed. In addition, a critically endangered red wolf pup was born at the zoo in April 2016; the male pup is the first red wolf born at the zoo in 23 years.

Source: Knoxville News Sentinel and the Knox County Metro Planning Commission.

RECENT DEVELOPMENTS

Following are some recent developments within the boundaries of the City and County and the Knoxville MSA that have had a direct economic impact on the area. The source for statistical information below is the Knoxville Area Chamber Partnership, the City of Knoxville, the Knoxville-Knox County Metropolitan Planning Commission, the Knoxville News Sentinel and The Daily Times.

EAST KNOX COUNTY

Brunswick Boat Group. The Brunswick Boat Group closed the Sea Ray production plant in the Forks of the River Industrial Park in 2012. Production was moved to other Brunswick plants in nearby Monroe County, TN and Florida. About 225 jobs at the plant were lost due to the closing. Headquarters for the Sea Ray division of Brunswick Boat Group were moved to downtown Knoxville. A decline in boat sales led to the layoffs at many East Tennessee plants, totaling 1,000 employees within the company to be let go. Sea Ray Boats moved to the Forks of the River Park in 1978 and in Monroe County in 1983. At one point the company had as many as 2,000 workers in Knox County.

Nyrstar Tennessee Mines. Nyrstar Tennessee Mines consists of six mines and two processing plants. East Tennessee and Middle Tennessee each contain three mines and one processing plant. The mines in East Tennessee are in Jefferson and Knox Counties. The Young mine in New Market opened in 1956; the Coy mine in Strawberry Plains was started in 1957; the Immel mine in East Knox County's Mascot community opened in 1965. Zinc from the Young, Coy and Immel mines is widely used to galvanize steel. Nyrstar Tennessee Mines employs 903 workers. In 2014, the six Tennessee mines produced 111,000 metric tons of zinc in concentrate.

Efficient Energy of Tennessee. Efficient Energy, in partnership with Natural Energy Group, built a solar panel site in East Knoxville in 2010. The site has more than one megawatt worth of solar panels on a five-acre lot. The 4.608 solar panels can produce nearly 1.2 megawatts of electricity, enough to power about 125 homes. The site will also be a resource for local research and educational organizations, such as the ORNL, Cleveland State Community College and PSTCC.

Fresenius Medical Care. The German company Fresenius Medical Care located its East Coast manufacturing facility in Knoxville in 2016. The company is a renal services provider. The $140 million project brings a dialysis production plant to the city’s old Panasonic building and creates about 665 jobs.

Keurig Green Mountain. The company started production in late 2008 at a new 334,000-square-foot facility in Forks of the River Industrial Park. The company invested about $55 million dollars on the plant and had a staff of about 25. In 2009, an $8 million investment in the plant added coffee processing equipment and coffee silos. In 2014, Keurig Green Mountain built a $4 million expansion of its Knox County operation to boost efficiency, without many jobs created. Keurig Green Mountain’s Knoxville operation employs about 950 people in 2015. In early 2016, a group of investors led by JAB Holding Company acquired Keurig Green Mountain. Keurig Green Mountain is a privately held company and remains an independent entity run by its existing management team.

Knox County Detention Center. The Detention Center in east Knoxville installed over 300 solar panels, five solar storage tanks, 65 concrete pads and more than 6,000 feet of copper piping to make it one of the largest solar thermal systems for domestic use in the nation. Trane, Knox County and FLS Energy partnered to save Knox County $60,000 annually in switching from natural gas to solar power as the primary way to heat water for the detention center’s 1,036 inmates. The project was funded by a $1.88 million grant from the U.S. Department of Energy Efficiency. The County also plans to renovate and upgrade 40 facilities, 24 parks and 37 traffic intersections with the grant money, all completed in January 2011. The total project is expected to save the County about $6 million annually.

Leisure Pools. Leisure Pools, which makes composite swimming pools, announced in 2013 that it was moving its headquarters to the County and creating about 240 jobs. The company acquired the old Sea Ray facility in the Forks of the River Industrial Park for about $4.5 million.

Lifetime Products. The Utah-based plastics company broke ground in May 2016 on a new $115 million, 720,000-square-foot manufacturing facility at the Forks of the River Industrial Park. The new plant is expected to generate 500 new jobs. This new facility will product the company's line of water sport products including kayaks and paddleboards, as well as their outdoor Play System line of products.

Melaleuca. Located in the Forks of the River Industrial Park, Melaleuca is expanding its operations and will hire up to 500 more workers in the next 10 years. A new 222,000-square-foot distribution center was opened in mid-2010. Melaleuca produces nutritional supplements, cleaning supplies, personal care and other products and sells these through workers who operate as direct marketers. The company has been operating in Knoxville since 1993.

WEST KNOX COUNTY

ADT Corporation. An expansion to ADT's facilities and work force in 2013 resulted in about 300 more workers to its workforce. ADT provides electronic security for residential and small business customers in the U.S. and Canada. Its Knoxville center has about 300 workers and following a recent upgrade, the facility is now ADT's IT Disaster Recovery Center.

Cellular Sales Verizon Wireless. Cellular Sales Verizon Wireless is a Knoxville-based company that operates authorized Verizon Wireless stores nationwide. The company began expanding its facility in West Knoxville that resulted in 250 new jobs when completed in 2014. The company operates nearly 500 stores across the country. The Knoxville-based company is the nation's largest premium Verizon retailer.

Comcast. The Comcast call center began hiring 250 new employees in 2015, part of the mass media company's move to enhance nationwide customer care. The jobs will be filled before the end of 2017. The move will allow Comcast to answer more calls in an efficient and timely manner. The expansion is part of a national Comcast hiring wave, with a projected 5,500 new jobs to be created across America within the next three years. The changes have greatly affected the Knoxville branch, a 96,000-square-foot facility that underwent a $7-million-dollar face-lift in 2015.

East Tennessee Healthcare Center. Construction was completed in 2014 on a $119 million proton therapy center in the East Tennessee Healthcare Center. ProNova, a division of Provision Health Alliance, installed three cyclotron parts for its compact proton therapy system. The two-room ProNova SC360 system uses patent-pending superconducting magnet technology to treat cancer patients. It will be the first in the world to treat patients in this manner. The system is small and more cost effective than traditional proton therapy systems. The system came online in December of 2014 and, in June of 2016, announced it had treated its 1,000th patient.

The development is situated on 120 acres in the 90,000-square-foot facility Dowell Springs Business Park, a central location to physicians, hospitals, and area residences. The project has an estimated $1.5 million annual economic impact that will create 1,250 construction jobs and 100 full time employees. Proton therapy is a noninvasive and painless form of precision radiation treatment that has minimal to no side effects. It is expected to treat up to 1,500 patients per year. There are about 10 proton therapy centers operating in the country.

Initial construction of the development was completed in 2009 and included a $35 million medical office development, consisting of two buildings which offered 175,000 square feet of clinical and office space. The Knoxville Comprehensive Breast Center and Tennessee Cancer Specialists are the anchor tenants of the office space. Plans for the grounds support the East Tennessee Healthcare Center's holistic approach to wellness and healthy living with "walking paths, waterfalls and beautiful mountain views."

Scripps Networks. The Travel Channel (part of the Scripps Networks) moved its headquarters from Maryland to the City in 2016. About 100 employees moved with the company. Scripps Network relocated its corporate headquarters in 2010 to the City from Cincinnati. The company's technical center - which includes satellite uplink operations, a control center for all its television networks and a wide range of other administrative, business and creative functions - is based in the City. Scripps Network is the home of Home and Garden TV network and had revenues totaling $2.5 billion in 2013.

TeamHealth. In 2016, Physician services company TeamHealth announced an expansion of its Knoxville headquarters due to anticipated growth over the next three to five years. The company will invest $6.7 million to construct additional office space adjacent to its current headquarters in West Knoxville. The company also plans to add 250 jobs in Knox County.

Tennova Healthcare. Tennova will begin construction on a new $303.5 million hospital in west Knoxville. The 272-bed, five-story facility will replace Physicians Regional Medical Center, formerly called St. Mary's. The new facility is scheduled to open in 2018.

NORTH KNOX COUNTY

WS Packaging Group, Inc. WS Packaging opened a new $43 million expansion in 2014 of its current operations by opening a new location in the PBR building in northwest Knox County. The expansion increased operations and consolidated its Knoxville facilities. The expansion brought 231 new jobs.

SOUTH KNOX COUNTY

Baptist Hospital Site. Demolition of the former Baptist Hospital site was completed in 2015; a $125 million to $150 million redevelopment is currently underway that will include a hotel, apartments, student housing, restaurants and retail. Located on the other side of Fort Loudoun Lake from downtown Knoxville, the former hospital has been mostly vacant for years.

Cityview at Riverwalk. A 122-unit waterfront condominium on the site of Knoxville Glove Co. at the South Knoxville waterfront broke ground in spring of 2006 and went into receivership in May 2009. The developers were in default of a $23 million construction loan. The site was sold to developers for about $15 million. The development consists of one-, two- and three-bedroom units, ranging in price from $165,000 to more than $300,000. The total cost of the residential development is about $30.5 million and was completed in 2010. Cityview amenities include a fitness center, covered secured parking and a marina. The 96-slip marina has been approved by TVA, and some slips are to be sold to the public.

Regal Entertainment Group. Currently headquartered in North Knox County, Regal Entertainment Group intends to move its corporate headquarters to a nine story office building on the former Baptist Hospital site on Knoxville's south waterfront. The move will add 70 additional jobs. Regal Cinemas opened four new IMAX locations across the country in 2010. Regal has an agreement with IMAX Corporation. Regal Cinema's Pinnacle 18 opened an $18-million megaplex in 2005 in Turkey Creek. The 18-screen theater encompasses over 82,000 square feet. Regal Cinemas is on the nation's fastest growing theater companies.

DOWNTOWN BUSINESS DISTRICT

Community Health Alliance. The nonprofit insurer, Community Health Alliance, announced in November 2015 that it would cease offering insurance coverage in 2016, resulting in 148 lay-offs at the end of 2015.

Converted Apartments. Several notable downtown buildings have been converted into apartment spaces. A former office property, the Medical Arts Building, was converted to 49 apartments with some retail spaces in 2014. It is located close to the courthouses and has an attached parking garage. The Tailor Lofts building on Gay Street was also converted into nine apartments plus a ground-floor restaurant.

East Tennessee Children's Hospital. The non-profit Children's Hospital began construction in the summer of 2014 for a $75 million expansion that is expected to be completed in 2017. The expansion will offer over 245,000 square feet of new space, including a 44-bed, private room Neonatal Intensive Care Unit, a new perioperative surgery center, two levels of parking and enhanced family areas, such as roof-top gardens.

Farragut Hotel. Dover Development Corporation received an incentive package from the Knoxville Industrial Development Board in 2015 to freeze the property taxes at their current rate before the property is redeveloped. Demolition began in late 2015 and plans call for four storefronts. Hyatt Place will open a hotel in the historic building in Spring 2017.

Fort Sanders Apartments. A Georgia firm purchased property near the Fort Sanders Hospital for $6.3 million to build 240 student apartments, and construction began in 2015.

Gulf & Ohio Railways. The Knoxville Locomotive Works operation of the Gulf & Ohio Railways, a Knoxville-based short line railroad, renovated its existing facility to begin producing locomotives based on its fuel-efficient prototype. This $6 million expansion created 203 jobs for the company and was operational in 2014.

Local Motors. Local Motors will produce its newest car, the LM3D Swim, at a Knoxville factory that opened in 2016. The Knoxville site is the company's first digitally enabled microfactory, meaning it can 3-D print finished pieces directly from digital designs with no tooling or casting. The LM3D Swim will be manufactured mostly through 3-D printing with some traditionally made automotive components. The Knoxville factory will launch early next year with four or five 3-D printers, and have the capacity to produce about 2,400 vehicles a year. The factory will also serve as a retail showroom, along with the company's Market Square storefront. The car is expected to cost about $53,000, depending on customization choices, and is expected to be available in 2017.

Marble Alley Lofts. Just off Gay Street, a developer began construction in 2014 on a 238-unit apartment complex. The project was in development since 2009. The first phase of construction, completed in February 2016, includes an internal parking garage with the apartment building foundations built surrounding the garage. Additional retail and commercial space is planned for the second phase.

Solar Arrays on County-Owned Buildings. In 2015 the County announced plans to install 5 megawatts of solar photovoltaic systems on the rooftops of several County buildings. The $12.5 million project is expected to provide more than $29 million in energy savings to the county over the next three decades. Along with the Knox County Central building, a total of 11 schools and three other public buildings will have solar panels. The entire project would support more than 125 jobs during the installation phase. The solar array at the L&N Stem Academy will be connected to a kiosk so that students can participate in monitoring the system.

Tennessee Valley Authority. TVA was established as a wholly-owned corporate agency and instrumentality of the United States of America by the Tennessee Valley Authority Act of 1933, as amended (the "TVA Act"). The TVA Act's objective is the development of the resources of the Tennessee Valley and adjacent areas in order to strengthen the regional and national economy and the national defense. Its specific purposes include: (1) flood control on the Tennessee River and its tributaries, and assistance to flood control on the lower Ohio and the Mississippi Rivers; (2) a modern navigable channel for the Tennessee River; (3) ample supply of power within an area of 80,000 square miles; (4) development and introduction of more efficient soil fertilizers; and (5) greater agricultural and industrial development and improved forestry in the region. TVA, a corporation owned by the U.S. government, provides electricity for utility and business customers in most of Tennessee and parts of Alabama, Mississippi, Kentucky, Georgia, North Carolina and Virginia — an area of 80,000 square miles with a population of 9 million. The utility operates 29 hydroelectric dams, 11 coal-fired power plants, three nuclear plants and 11 natural gas-fired power facilities and supplies up to 33,700 megawatts of electricity via more than 16,000 miles of high-voltage power lines.

In 2014, 750 employees voluntarily retired or resigned from TVA. Another 1,000 vacant positions were eliminated to result in the largest staff reduction that the federal utility has undergone in more than 20 years. The goal was to reduce $500 million in annual expenses in 2015.

In April of 2011 TVA announced plans to retire 18 coal-fired units at three of its older fossil plants, effectively closing one of the plants. This action is in an unprecedented agreement with the Environmental Protection Agency, four states and three environmental groups to settle complaints that the federal utility violated the Clean Air Act. TVA's board of directors approved the shutdown of two units at the John Sevier plant near Rogersville, Tenn., six at Widows Creek in North Alabama and all 10 units at the Johnsonville plant in Middle Tennessee. The permanent shutdowns, called retirements, will take place in phases through 2017 and will affect 300 to 400 workers. The combined idled and retired units will reduce TVA's coal-fired capacity by 2,700 megawatts out of total 17,000 megawatts generated by the country's largest public utility. The utility also has to invest $3 billion to $5 billion on pollution controls and $350 million on clean energy projects. Penalties include a $1 million to the National Park Service and the National Forest Service and a civil penalty of $10 million to various entities, including the States of Alabama, Kentucky and Tennessee.

The Unit 2 reactor at Watts Bar Nuclear Plant in Rhea County, TN was granted an operating license in October of 2015, nearly 43 years after the original construction permit was awarded. The license allows TVA to load nuclear fuel into the new unit and begin testing of the equipment. Total estimated project cost reached $4.7 billion, and the reactor began producing power for commercial consumption in 2016.

In 2007 TVA restarted a nuclear reactor at Browns Ferry in North Alabama. It was the first time the reactor had been at full power in 22 years. TVA spent five years and about $2 billion revamping the reactor. It was the first increase in the United States' nuclear generating capacity since 1996.

UNIVERSITY OF TENNESSEE – KNOXVILLE

UTK is undergoing a record $1 billion makeover to transform the look and feel of the campus. As of mid-2015 about one-fourth of the university's footprint is under construction in an effort to improve facilities and infrastructure to become a Top 25 public research institution.

Ayres Hall. The historic hall, built in 1921, underwent a $23 million renovation in 2010. The building was made more energy efficient to be LEED certified, and a front patio, marble walls and clocks were added to its bell tower.

Cherokee Campus. The Cherokee Farm concept came into being in 2001 as a way to further research by UTK and ORNL in computational sciences, climate and environment, advanced materials, biomedical sciences, and renewable energy. UTK and ORNL started development of the campus with $87 million in capital investments and incentives. This is part of a UTK goal to join the ranks of the nation's top 25 public research universities. The former site of UTK's 188-acre dairy operation was chosen, and development of 77 acres of the property began in 2010. The farm is less than a mile from the Knoxville campus.

The first building, the $47 million, 142,000-square-foot Joint Institute for Advanced Materials facility, opened in early 2016. The rest of the campus will include 16 building sites. These sites, ranging up to 2 acres, should allow a total of 1.6 million square feet of development. Moving research to the proposed Cherokee campus would free up buildings on the main campus, which could be renovated and used for additional administration and instructional space.

The Joint Institute for Advanced Materials building will house seven high-powered microscopes that researchers from UTK, ORNL and elsewhere will use in screening and analyzing materials. The work is oriented toward producing strong, lightweight materials for the automotive and aerospace industries. Researchers will also be able to make use of supercomputers Kraken at UTK and Titan at ORNL.

The first private tenant at Cherokee Farm was announced in May 2016. Civil and Environmental Consultants, Inc. (CEC) is recognized for providing innovative design solutions and integrated expertise in the primary practice areas of civil engineering, ecological sciences, environmental engineering and sciences, survey, waste management and water resources.

Classroom and Science Laboratory Facility. A new 22,000-square-foot, $5 million building will house a classroom and science laboratory facility. It is expected to be completed in 2018. It will house research laboratories, a vivarium, classrooms, and faculty offices. It will be between the Jessie Harris Building and the Hoskins Library.

Ken and Blaire Mossman Building. Situated on the former site of three historic houses in the Fort Sanders area, the building will house portions of microbiology, biochemistry, cellular and molecular biology, psychology and nutrition. The $96 million project is expected to be completed in 2018.

Min H. Kao Electrical Engineering and Computer Science Building. The first new engineering building on the UTK campus in nearly 50 years opened in early 2012. The $37.5 million, 150,000-square-foot building consolidates engineering students into one building for classrooms and labs.

Science Laboratory Facility. In early 2015 construction began on the new Science Laboratory Facility, a $114 million nine-story modern science class and laboratory facility at the Strong Hall dormitory site. It will feature 500-seat and 250-seat lecture halls, general purpose classrooms and house the Anthropology and Earth and Planetary Sciences departments and is expected to be completed in Fall 2017.

Steam Plant Conversion. The coal-fired boilers have been removed and replaced with natural gas boilers at the steam plant on campus. The large smokestacks were also removed. The conversion cost approximately $25 million and was completed in 2016.

Stokely Athletic Center and Dorm Gibbs Hall. In 2014 demolition was completed on the closed and outdated buildings that are Stokely Athletic Center and Gibbs Hall. The Stokely Athletic Center, the home of the basketball team before the move to the Thompson-Boling Arena, was built in 1958 and was closed in 2012. The Dorm Gibbs Hall was built in 1963 with only the dining services remaining operational in recent years. First, a 1,000-space parking garage was built along Volunteer Boulevard, costing $38 million. UTK is building a 600 bed co-ed resident hall, with added services like dining. That will cost $94.3 million and is planned for an early 2017 completion date. And third, an extension to the current Haslam football practice field is planned, and a private donation is expected to fund the $10 million project.

Student Union. The new 391,000-square-foot, six-story, $167 million Student Union project began construction in 2014 and will be completed in Spring 2018. It will replace the outdated University Center that was originally built in 1952. It will hold a 50,000-square-foot bookstore, ten dining establishments, a 10,000-square-foot auditorium and a 12,000-square-foot ballroom.

Support Services Complex. Completed in 2016, the new Support Services Complex is a $18.7 million complex that reuses a former industrial facility to house the 91,000-square-foot Department of Facilities headquarters and other units. It features offices, warehouses, workshops, labs and fleet parking.

Torchbearer Plaza / Circle Park. The $1.2 million renovation project on the Torchbearer statue at Circle Park was completed in August 2015. The project rebuilt and enlarged the plaza area while renovating the landscaping and lighting.

University Health System. A new $25 million Cancer Institute was completed in October 2012. The new building almost tripled the size of the existing facility to 100,000 square feet. It is located adjacent to the current facility. Also in 2012, the UT Graduate School of Medicine completed the first phase of an $8 million project that will expand and renovate its family medicine clinic and academic training facility.

The new Heart Hospital was opened in 2010. The four-story, 126,000-square-foot, $26 million facility will serve the inpatient needs of the hospital's Heart Lung Vascular Institute. Just like the 103,000-square-foot Heart Lung Vascular Institute, which opened in 2004, the new tower also will promote medical staff collaboration and offer multi-disciplinary care to patients. UT Medical Center is the area's only teaching hospital and Level One trauma center.

University of Tennessee Veterinary Hospital. An expansion and renovation of the Veterinary Medical Center's Equine and Farm Animal Hospitals began in 2011. Completion of the $21 million project on the agriculture campus was in December 2012. The $8 million expansion for the small animal clinic was completed in 2008. UTK's veterinary hospital treats about 35,000 animals annually.

West Housing Redevelopment. The West Housing Redevelopment project is a multiphase, $234 million project to replace the dining facilities and six residence halls (North Carrick, South Carrick, Reese, Humes, Morrill, and Andy Holt Apartments) with seven new halls and a community dining facility on the Presidential Court Complex. The first new residence hall to be built in 43 years, Fred Brown Residence Hall, opened for the 2014-2015 semester. The others are scheduled to be finished by 2019.

William M. Bass Forensic Anthropology Building. A new building on the campus of the UT Medical Center was dedicated to one of the world's foremost forensic anthropologists, Dr. William Bass. The new, privately funded building will enhance research programs and provide classroom facilities for UTK students and the many law enforcement, fire and medical professionals who train at the adjacent Anthropological Research Facility, also known as the Body Farm. The Body Farm was created by Dr. Bass in 1981 and has trained more than a quarter of the nation's board-certified forensic anthropologists, who serve in key roles in government, museums and private sector jobs.

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APPENDIX C

SUMMARY OF BOND RESOLUTION

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SUMMARY OF CERTAIN PROVISIONS OF THE GENERAL RESOLUTION AND SUPPLEMENTAL RESOLUTION

Authorization

The resolution adopted by the Board of Commissioners of the West Knox Utility District (the "Board") on June 11, 1997, as amended and restated in its entirety by a resolution adopted by the Board on August 27, 2009 (the "General Resolution"), as supplemented by a resolution adopted by the Board on October 28, 2010, December 9, 2015 and November 17, 2016 (collectively, the "Resolution") authorizes the District to issue Bonds.

Definitions

For purposes of this discussion as used herein, the following capitalized terms are defined in the Resolution as follows:

(a) "Acquired System" shall mean any separate water or sewer system or any combination thereof acquired by the District pursuant to State law.

(b) "Act" shall mean Tennessee Code Annotated Sections 7-82-101 *et seq.*, as amended from time to time;

(c) "Authority" shall mean The Public Building Authority of Sevier County, Tennessee or any other governmental authority authorized to make loans to the District to finance or to refinance extensions and improvements to the System.

(d) "Balloon Indebtedness" shall mean any Obligations, other than Short-Term Indebtedness, 25% or more of the initial principal amount of which matures (or must be redeemed at the option of the holder) during any twelve month period, if such 25% or more is not to be amortized to below 25% by mandatory redemption prior to the beginning of such twelve month period.

(e) "Bond Fund" shall mean the Bond and Interest Fund established pursuant to the Resolution.

(f) "Build America Bonds" shall mean Taxable Bonds of that name as described in the Recovery Act which are issued by the District pursuant to Section 54AA of the Code for which the District elects to receive Direct Subsidy Payments in an amount equal to a percentage of the interest paid on such Bonds.

(g) "Capital Appreciation Bonds" shall mean bonds, which bear interest at a stated interest rate of 0.0% per annum, have a value on any applicable date equal to the Compound Accreted Value thereof on that date, and are payable only at maturity or earlier redemption.

(h) "Code" shall mean the Internal Revenue Code of 1986, as amended, and all lawful regulations promulgated or proposed thereunder.

(i) "Compound Accreted Value" shall mean the value at any applicable date of any Capital Appreciation Bond, computed as the original principal amount thereof for each maturity date, plus an amount equal to interest on said principal amount (computed on the basis of a 360-

day year of twelve 30-day months) compounded semi-annually on such dates as shall be established by the Series Resolution authorizing the Capital Appreciation Bonds, from the dated date to said applicable date, at an interest rate which will produce at maturity the Maturity Amount for such maturity date.

(j) "Credit Facility" shall mean, with respect to any Obligations, a Letter of Credit and any Substitute Credit Facility provided by the borrower for such Obligations.

(k) "Credit Provider" shall mean, with respect to any Obligations, the provider of any Credit Facility.

(l) "Current Expenses" means expenses incurred by the District in the operation of the System, determined in accordance with generally accepted accounting principles, including the reasonable and necessary costs of operating, maintaining, repairing and insuring the System, the cost of acquiring water, salaries and wages, cost of material and supplies, and insurance premiums, but shall exclude depreciation, amortization and interest on any bonds, notes or other obligations of the District; provided that any payments made by the District to purchase water for delivery after the end of the then-current Fiscal Year shall be accounted for and charged to Current Expenses in accordance with generally accepted accounting principles, and any debt service incurred for the purpose of purchasing water for delivery after the end of the then-current Fiscal Year shall be treated as a Current Expense if so directed by the authorizing resolution;

(m) "Debt Service Requirement" means the total principal, Maturity Amounts and interest coming due, whether at maturity or upon mandatory redemption (less any amount of interest that is capitalized and payable with the proceeds of debt on deposit with the District or any paying agent for the Obligations or other obligations of the District payable from all or some portion of Revenues), for any period of 12 consecutive calendar months for which such a determination is made, provided:

> (1) The Debt Service Requirement with respect to Variable Rate Indebtedness shall be determined as if the variable rate in effect at all times during future periods equaled, at the option of the District, either (A) the average of the actual variable rate which was in effect (weighted according to the length of the period during which each such variable rate was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period), or (B) the current average annual fixed rate of interest on securities of similar quality and tax status and having a similar maturity date, as certified by a Financial Adviser.
>
> (2) The Debt Service Requirement with respect to any Hedged Obligations for so long as the provider of the related Hedge Agreement has not defaulted on its payment obligations thereunder shall be calculated by adding (x) the amount of interest payable by the District on such Hedged Obligations pursuant to their terms and (y) the amount of Hedge Payments payable by the District under the related Hedge Agreement and subtracting (z) the amount of Hedge Receipts payable by the provider of the related Hedge Agreement at the rate specified in the related Hedge Agreement; provided, however, that to the extent that the provider of any Hedge Agreement is in default thereunder, the amount of interest payable by the District on the related Hedged Obligations shall be the interest calculated as if such Hedge Agreement had not been executed. In determining the amount of Hedge Payments or Hedge Receipts that are not fixed throughout the Hedge Period (i.e., which are variable), payable or receivable for

any future period, such Hedge Payments or Hedge Receipts for any period of calculation (the "Determination Period") shall be computed (i) by assuming that the variables comprising the calculation (e.g., indices) applicable to the Determination Period are equal to the average of the actual variables which were in effect (weighted according to the length of the period during which each such variable was in effect) for the most recent 12-month period immediately preceding the date of calculation for which such information is available (or shorter period if such information is not available for a 12-month period) or (ii) by using the same assumptions with respect to the Hedged Obligations as may be used for determining the assumed interest rate for Variable Rate Indebtedness.

(3) For the purpose of calculating the Debt Service Requirement on Balloon Indebtedness and Short-Term Indebtedness, at the option of the District, (x) the actual principal and interest on such Balloon Indebtedness and Short Term Indebtedness shall be included in the Debt Service Requirement, subject to the other assumptions contained in the Resolution, or (y) such Balloon Indebtedness and Short Term Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of 20 years at an assumed interest rate (which shall be the interest rate certified by a Financial Adviser to be the interest rate at which the District could reasonably expect to borrow the same amount by issuing bonds with the same priority of lien as such Balloon Indebtedness and Short Term Indebtedness and with a 20-year term); provided, however, that if the maturity of such Balloon Indebtedness is in excess of 20 years from the date of issuance, then such Balloon Indebtedness shall be assumed to be amortized in substantially equal annual amounts to be paid for principal and interest over an assumed amortization period of years equal to the number of years from the date of issuance of such Balloon Indebtedness to maturity and at the interest rate applicable to such Balloon Indebtedness; provided further that this paragraph shall not be applicable for purposes of determining the District's Debt Service Requirement for purposes of the resolution unless the District has a written commitment from a bank, underwriting firm or other financial institution with a Rating in the investment grade rating categories of at least one Rating Agency (ignoring any gradations within a Rating Category) to refinance at least 90% of the principal amount of such Balloon Indebtedness or Short-Term Indebtedness coming due in the relevant Fiscal Year.

(4) For the purpose of calculating the Debt Service Requirement on any Obligations or proposed Obligations with respect to which the federal government or any agency thereof is obligated to make tax refunds or other payments to the District for the purpose of reducing the interest costs associated therewith (including, without limitation, build America bonds under Section 54AA of the Internal Revenue Code of 1986, as amended), the District may offset any stated interest payment on such Obligations or proposed Obligation by the amount of the scheduled tax refund or other payment corresponding thereto.

(n) "Defeasance Obligations" shall mean direct obligations of, or obligations, the principal of and interest on which are guaranteed by the United States of America, or any agency thereof, obligations of any agency or instrumentality of the United States or any other obligations at the time of the purchase thereof are permitted investments under Tennessee law for the purposes described in the Resolution, which bonds or other obligations shall not be subject to redemption prior to their maturity other than at the option of the registered owner thereof.

(o) "Direct Subsidy Bonds" shall mean Build America Bonds issued pursuant to the Resolution.

(p) "Direct Subsidy Payment" shall mean, with respect to Direct Subsidy Bonds issued pursuant to the Resolution, payments in an amount equal to a percentage of interest paid on such Bonds provided directly to the District from the United States Treasury Secretary, or other party designated by the federal government to issue such payments.

(q) "District" shall mean West Knox Utility District of Knox County, Tennessee.

(r) "Financial Adviser" means an investment banking or financial advisory firm, commercial bank, or any other person who or which is retained by the District for the purpose of passing on questions relating to the availability and terms of specified types of debt obligations or the financial condition or operation of the System and is actively engaged in and, in the good faith opinion of the District, has a favorable reputation for skill and experience in providing financial advisory services of the type with respect to which the Financial Adviser has been retained.

(s) "Financial Guaranty Agreement" shall mean any Financial Guaranty Agreement authorized in the Resolution to be executed in connection with a Reserve Fund Credit Facility.

(t) "Fiscal Year" shall mean each fiscal year of the District as determined from time to time by the Governing Body. As of the date hereof, the fiscal year of the District is the annual period which begins on July 1 any calendar year and ends on June 30 in the following calendar year.

(u) "Governing Body" shall mean the Board of Commissioners of the District.

(v) "Hedge Agreement" shall mean, without limitation, (i) any contract known as or referred to or which performs the function of an interest rate swap agreement, currency swap agreement, forward payment conversion agreement, or futures contract; (ii) any contract providing for payments based on levels of, or changes or differences in, interest rates, currency exchange rates, or stock or other indices; (iii) any contract to exchange cash flows or payments or series of payments; (iv) any type of contract called, or designed to perform the function of, interest rate floors, collars, or caps, options, puts, or calls, to hedge or minimize any type of financial risk, including, without limitation, payment, currency, rate, or other financial risk; and (v) any other type of contract or arrangement that the District determines is to be used, or is intended to be used, to manage or reduce the cost of any Obligations, to convert any element of any Obligations from one form to another, to maximize or increase investment return, to minimize investment return risk, or to protect against any type of financial risk or uncertainty.

(w) "Hedged Obligations" shall mean any Obligations for which the District shall have entered into a Hedge Agreement.

(x) "Hedge Payments" shall mean amounts payable by the District pursuant to any Hedge Agreement or under a Loan Agreement (including the II-D-2 Loan Agreement) that relate to a Hedge Agreement, other than Termination Payments, fees, expenses, and indemnity payments.

(y) "Hedge Period" shall mean the period during which a Hedge Agreement is in effect.

(z) "Hedge Receipts" shall mean amounts payable by any provider of a Hedge Agreement pursuant to such Hedge Agreement, other than Termination Payments, fees, expenses, and indemnity payments.

(aa) "Loan Agreement(s)" shall mean any agreement or contract entered into by the District with an Authority, where such Authority agrees to advance funds to the District and the District agrees to repay those funds with interest.

(bb) "Maturity Amount" shall mean the Compound Accreted Value on the stated maturity date of a Capital Appreciation Bond.

(cc) "Maximum Annual Debt Service Requirement" shall mean the maximum annual Debt Service Requirement for any Fiscal Year of the District.

(dd) "Net Revenues" shall mean Revenues, excluding any profits or losses on the sale or other disposition, not in the ordinary course of business, of investments or fixed or capital assets, less Current Expenses.

(ee) "Obligations" shall mean outstanding Bonds authorized pursuant to the Resolution and any Parity Obligations issued thereafter.

(ff) "Parity Obligations" shall mean bonds, notes, Loan Agreements, and other debt obligations, including Balloon Indebtedness, Short-Term Indebtedness and Variable Rate Indebtedness, issued by or entered into by the District, including any bonds, notes or other obligations secured by a pledge of and/or lien on an Acquired System and the revenues derived from the operation of such Acquired System (provided such pledge and lien are subject only to normal and customary expenses of operating, maintaining, repairing and insuring any such System), so long as the Acquired System is not being operated separately from the System as is permitted in the Resolution or the revenues from such Acquired System are not excluded from Revenues. Reimbursement Payments constitute Parity Obligations.

(gg) "Payments in Respect of Interest" shall mean (a) payments of interest on Obligations, (b) Hedge Payments net of Hedge Receipts and (c) Reimbursement Payments payable under a Loan Agreement made as a reimbursement for an interest payment or payment of the interest portion of purchase price made by a Credit Provider. Payments in Respect of Interest constitute Parity Obligations.

(hh) "Payments in Respect of Principal" shall mean (a) payments of principal, Compound Accreted Value, and premium, if any, on Obligations and (b) Reimbursement Payments payable under a Loan Agreement made as a reimbursement for principal payment or payment of the principal portion of purchase price made by a Credit Provider. Payments in Respect of Principal constitute Parity Obligations.

(ii) "President" means the duly elected and acting President of the Governing Body, or any other member of the Governing Body acting in the capacity of President when the elected and acting President is unavailable or incapable of acting;

(jj) "Rating" means a rating in one of the categories by a Rating Agency, disregarding pluses, minuses, and numerical gradations.

(kk) "Rating Agencies" or "Rating Agency" means Fitch Ratings, Moody's Investors Service, Inc., and Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., or any successors thereto and any other nationally recognized credit rating agency.

(ll) "Rebate Year" shall mean, with respect to a particular Series of Bonds issued pursuant to the Resolution, a one-year period (or shorter period from the date of issue) that ends at the close of business on the day in the calendar year selected by the District as the last day of a Rebate Year. The final Rebate Year with respect to a particular Series of Bonds issued pursuant to the Resolution, however, shall end on the date of final maturity of that Series of Bonds.

(mm) "Recovery Act" shall mean the American Recovery and Reinvestment Act of 2009.

(nn) "Reimbursement Agreement" shall mean, with respect to any Obligations, the Reimbursement Agreement or Credit Agreement between the Credit Provider and the District, and any amendments or supplements thereto, together with any reimbursement or similar agreement between the District and any subsequent Credit Provider, and any amendments and supplements thereto.

(oo) "Reimbursement Payments" shall mean any amounts payable by the District under a Loan Agreement or a Reimbursement Agreement to reimburse a Credit Provider for amounts advanced under the related Credit Facility, including interest on the amounts advanced thereunder.

(pp) "Reserve Fund" shall mean any Debt Service Reserve Fund established pursuant to any Series Resolution, and any such Reserve Fund shall not be a commingled reserve fund but shall secure only the specific Obligations issued under the Series Resolution providing for such reserve fund.

(qq) "Reserve Fund Credit Facility" shall mean a municipal bond insurance policy, surety bond, letter of credit, line of credit, guarantee or other agreement provided by a Reserve Fund Credit Facility Issuer which provides for payment of amounts equal to all or any portion of any Reserve Fund Requirement in the event of an insufficiency of moneys in the Bond Fund to pay when due principal of and interest on the Obligation for which such Reserve Fund is created.

(rr) "Reserve Fund Credit Facility Issuer" shall mean the issuer of a Reserve Fund Credit Facility rated in one of the three highest rating categories by each Rating Agency that rates such Reserve Fund Credit Facility Issuer.

(ss) "Reserve Fund Requirement" shall mean, with respect to any Obligation, the amount required to be maintained in any Reserve Fund, which such amount, if any, shall be established in the Series Resolution authorizing such Obligation.

(tt) "Revenue Fund" shall mean the Revenue Fund established pursuant to the Resolution.

(uu) "Revenues" shall mean all revenues, rentals, earnings and income of the District from whatever source, determined in accordance with generally accepted accounting principles, including all revenues derived from the operation of the System; proceeds from the sale of property; proceeds of insurance and condemnation awards and compensation for damages, to the extent not applied to the payment of the cost of repairs, replacements and improvements; and all amounts realized from the investment of money in the accounts and funds of the System, including money in any accounts and funds created by the resolution, and resolutions authorizing any Parity Obligations or obligations subordinate to the Obligations (excluding any investment earnings from construction or improvement funds created for the deposit of bond proceeds pending use, to the extent such income is applied to the purposes for which the bonds were issued, and funds created to refund any Refunded Loan Agreements payable from Revenues of the System); provided, however, (i) at the election of the District, Revenues shall not include any rates, fees, rentals or other charges or other income received by the District from the operation of an Acquired System and any bonds or other obligations issued in connection with such Acquired System shall not be payable from or secured by Net Revenues or be deemed to be Parity Obligations, and (ii) Revenues shall not include any payments to the District with respect to which an adjustment to the Debt Service Requirement has been made pursuant to Section (2)(o)(4) hereof.

(vv) "Secretary" shall mean the Secretary of the District.

(ww) "Series Resolution" shall mean a resolution of the District authorizing the issuance of an Obligation in accordance with the terms and provisions hereof.

(xx) "Short-Term Indebtedness" shall mean Obligations, including Variable Rate Indebtedness, maturing five (5) years or less from their date of issuance, issued by the District as Parity Obligations in accordance with the restrictive provisions of the Resolution.

(yy) "State" shall mean the State of Tennessee.

(zz) "System" shall mean the water and sewer system of the District, any water and/or sewer system hereafter acquired, constructed or otherwise established, including all improvements and extensions made by the District or the Governing Body on behalf of the District while the Obligations remain outstanding, and including all real and personal property of every nature comprising part of or used or useful in connection with the foregoing, and including all appurtenances, contracts, leases, franchises, and other intangibles; provided, however, at the election of the Governing Body, an Acquired System may be included within the System as defined in the Resolution and become a part thereof or, at the election of the District, not become a part of the System but be operated as a separate and independent system by the District with the continuing right, upon the election of the District, to incorporate such separately Acquired System within the System.

(aaa) "Taxable Bond" shall mean any *Series 2010* Bond where the interest income thereon is includable in the gross income of the holder thereof for federal income tax purposes or that such interest is subject to federal income taxation.

(bbb) "Termination Payments" means an amount payable by or to the District (whether directly or pursuant to a Loan Agreement upon termination of a Hedge Agreement.

(ccc) "Variable Rate Indebtedness" means any Parity Obligations, the interest rate on which is subject to periodic adjustment, at intervals, at such times and in such manner as shall be determined by a Series Resolution authorizing such Parity Obligations; provided that if the interest rate shall have been fixed for the remainder of the term thereof, it shall no longer be Variable Rate Indebtedness.

Source of Payment; Equality of Lien; Pledge of Net Revenues

The punctual payment of Payments in Respect of Principal and Payments in Respect of Interest shall be payable from and secured equally and ratably by the Net Revenues without priority by reason of number or time of sale or execution or delivery. The Net Revenues are hereby irrevocably pledged to the punctual payment of Payments in Respect of Principal and Payments in Respect of Interest as the same become due.

Statutory Mortgage Lien

For the further protection of the registered owners or other holders of the Obligations, a statutory lien in the nature of a mortgage lien upon the System is granted and created by the Act, which said statutory mortgage lien is hereby recognized as valid and binding upon the District and to be a lien upon the System and the System shall remain subject to such statutory mortgage lien until the payment in full of the principal and interest on the Obligations.

Application of Revenues

From and after the delivery of Obligations pursuant to the Resolution, and as long as any Obligations shall be outstanding and unpaid either as to principal or as to interest and other amounts thereunder, or until the discharge and satisfaction of all the Obligations as provided in the Resolution, the entire Revenues of the System shall be deposited as collected to the Revenue Fund of the District hereby established (the "Revenue Fund"). The money so deposited shall be used only as follows:

(a) The money in the Revenue Fund shall be used first from month to month for the payment of Current Expenses.

(b) The money remaining in the Revenue Fund, after payment of Current Expenses, shall next be used to make deposits into a separate and special fund, to be known as the "Bond and Interest Fund" (the "Bond Fund"), to be kept separate and apart from all other funds of the District and used to pay Payments in Respect of Principal and Payments in Respect of Interest on Obligations as the same become due, either by maturity or mandatory redemption. Such deposits shall be made monthly, or as otherwise set forth in the Resolution, until the Obligations are paid in full or discharged and satisfied, beginning in the month next following delivery of the Obligations.

With respect to principal, for the period commencing with the month next following the delivery of the Obligations, each monthly deposit shall be an amount that, together with all other monthly deposits of approximately equal amounts during such period and amounts otherwise in said Bond Fund, will be equal to Payments in Respect of Principal due on the Obligations on the next due date of such Payments in Respect of Principal, divided by the number of months from and including the month of the first such deposit to and including the months preceding the next due date of such Payments in Respect of Principal; provided that, if the next due date of such Payments in Respect of Principal is more than 13 months following the month next following the delivery of the Obligations, such monthly deposits to the Bond Fund shall commence in the month that is 13 months prior to the month of the next due date of such Payments in Respect of Principal.

If Payments in Respect of Interest are payable semi-annually, then there shall be deposited monthly in an amount equal to one-sixth (1/6) of the Payments in Respect of Interest coming due on the next due date of Payments in Respect of Interest, or (ii) if Payments in Respect of Interest are payable more frequently than semi-annually, then as specified in the Series Resolution authorizing such Parity Obligations.

In each month thereafter, each monthly deposit shall consist of an interest component and a principal component. If the Payment in Respect of Interest is payable semi-annually, then the Payment in Respect of Interest shall be an amount equal to not less than one-sixth (1/6th) of the interest coming due on any Obligations then outstanding on the next succeeding interest payment date, unless otherwise specified in the Series Resolution authorizing such Obligations. If the Payment in Respect of Interest is payable more frequently than semi-annually, then the amount of the Payment in Respect of Interest to be deposited shall be specified in any Series Resolution authorizing such Obligations. The principal component shall be an amount not less than one-twelfth (1/12) of the total of the Payment in Respect of Principal coming due, whether by maturity or mandatory redemption, on the Obligations then outstanding during such twelve-month period. No further monthly or periodic deposit shall be required with respect to the next due date of any Payment in Respect of Interest or Payment in Respect of Principal when the Bond Fund balance is equal to or greater than the amount needed to pay the Payment in Respect of Interest coming due on the next interest payment date and the total of the Payments in Respect of Principal payable, either by maturity or mandatory redemption, during the applicable twelve-month period. Money in the Bond Fund shall be used solely and is hereby expressly and exclusively pledged for the purpose of paying Payments in Respect of Interest and Payments in Respect of Principal on the Obligations and Parity Obligations.

Each deposit as to interest shall take into account expected Hedge Payments related to such interest payments.

(c) The next available money in the Revenue Fund shall be paid to any Reserve Fund Credit Facility Issuer or Issuers (pro rata, if more than one) to the extent needed to reimburse the Reserve Fund Credit Facility Issuer for amounts advanced by the Reserve Fund Credit Facility Issuer or Issuers under the Reserve Fund Credit Facility, including any amounts payable under any Financial Guaranty Agreement, together with reasonable related expenses incurred by the Reserve Fund Credit Facility Issuer and interest as provided in the Financial Guaranty Agreement.

(d) Any Reserve Fund with respect to any Obligation shall be established in the Series Resolution authorizing such Obligation, and the Reserve Fund Requirement with respect to any such Reserve Fund shall be established in the Series Resolution authorizing such Obligation. No deposit shall be required to be made to any Reserve Fund unless the amount in the Reserve Fund, together with the Reserve Fund Credit Facility or Facilities, if any, becomes less than the applicable Reserve Fund Requirement.

The next available money in the Revenue Fund shall be used to make deposits on a pro rata basis to any Reserve Fund created by a Series Resolution. In the event deposits to any Reserve Fund shall be required, such deposits shall be made in accordance with the Series Resolution creating such Reserve Fund.

Only so long as there is no deficiency with respect to clauses (e) and (f), funds in excess of the Reserve Fund Requirement with respect to all Reserve Funds, if any, created by any Series Resolution may be released to be used by the District for legally permissible purposes

(e) The next available money in the Revenue Fund shall be used for the payment of all other payments to be made under pursuant to the Resolution.

(f) The next available money in the Revenue Fund shall be used for the purpose of the payment of principal of and interest on (including reasonable reserves therefor) any bonds or other obligations payable from revenues of the System, but junior and subordinate to the Obligations. Termination Payments received in connection with a Hedge Agreement shall be deposited to the Revenue Fund and Termination Payments required of a District in connection with a Hedge Agreement shall be paid as a subordinate lien obligation pursuant to this subsection.

(g) Money on deposit in the Funds described in this Section may be invested by the District in such investments as shall be permitted by applicable law, as determined by an authorized representative of the District, all such investments to mature not later than the date on which the money so invested shall be required for the purpose for which the respective Fund was created. All income derived from such investments shall be regarded as Revenues of the System and shall be deposited in the Revenue Fund. Such investments shall at any time necessary be liquidated and the proceeds thereof applied to the purpose for which the respective Fund was created; provided, however, that in no event shall moneys in the Reserve Fund be invested in instruments that mature more than two (2) years from the date the money is so invested. The District is authorized to enter into contracts with third parties for the investment of funds in any of the Funds described in the Resolution.

(h) The Revenue Fund, the Bond Fund, and the Reserve Fund (except to the extent funded with a Reserve Fund Credit Facility or Facilities) shall be held and maintained by the District and, when not invested, kept on deposit with a bank or financial institution regulated by and the deposits of which are insured by the Federal Deposit Insurance Corporation or similar federal agency. All moneys in such Funds so deposited shall at all times be secured to the extent and in the manner required by applicable State law.

Prohibition of Prior Lien; Parity Obligations

The District will issue no other bonds or obligations of any kind or nature payable from or enjoying a lien on the Revenues of the System having priority over the Obligations.

Additional bonds may hereafter be issued on a parity with the Obligations under the following conditions but not otherwise:

(a) Additional bonds may be issued on a parity without regard to the requirements of subsection (c) of this Section, if such bonds shall be issued for the purpose of refunding any of the Obligations which shall have matured or have become subject to mandatory redemption or which shall mature or become subject to mandatory redemption not later than three months after the date of delivery of such refunding bonds and for the payment of which insufficient money is available in the Bond Fund.

(b) Additional bonds may be issued on a parity with the Obligations without regard to the requirements of subsection (c) of this Section, if such bonds shall be issued for the purpose of refunding any outstanding Obligations under circumstances not resulting in the defeasance of all of the Obligations pursuant to the resolution authorizing such Obligations, provided the Maximum Annual Debt Service Requirement computed with respect to all Obligations to be outstanding as of the date of issuance of such additional bonds (and after giving effect to the application of the proceeds thereof) shall not be greater than 105% of the Maximum Annual Debt Service Requirement computed with respect to all Obligations outstanding as of the date immediately preceding the issuance of such additional bonds.

(c) Additional bonds may be issued on a parity if all of the following conditions shall have been met:

(1) Either:

(A) the Net Revenues of the System for twelve consecutive months out of the eighteen months immediately preceding the issuance of such additional bonds must have been equal to at least one and two-tenths (1.20) times the Maximum Annual Debt Service Requirement computed with respect to the bonds proposed to be issued, Parity Obligations intended to be refunded by the proposed additional bonds; or

(B) the Net Revenues of the System for the twelve consecutive months out of the eighteen months immediately preceding the issuance of the proposed additional bonds, as certified by the Financial Advisor, must be equal at least to one and two-tenths (1.20) times the Maximum Annual Debt Service Requirement computed with respect to the bonds proposed to be issued and the outstanding Obligations, and one (1.0) times the Maximum Annual Debt Service on any subordinate lien obligations other than the obligations intended to be refunded by the proposed bonds; provided, however, that if prior to the sale of such additional bonds or the incurring of additional indebtedness the District shall have adopted a revised schedule of rates for the System and resolved to put such rate schedule in effect at or prior to the issuance of the additional bonds, then the Net Revenues for the Fiscal Year immediately preceding the issuance of such additional bonds or the incurring of additional indebtedness, as certified by an independent engineer or engineering firm or a nationally recognized firm of financial feasibility consultants having a favorable reputation for skill and experience in the financial feasibility of water and sewer systems, that would have resulted from such rates had they been in effect for such period, may be used in lieu of the actual Net Revenues for such Fiscal Year; and the Net Revenues for each of the next three Fiscal Years ending after the issuance of the additional bonds, as estimated by an independent engineer or engineering firm, or a nationally recognized firm of financial feasibility consultants, having a favorable reputation for skill and experience in the financial feasibility of water and sewer systems, must be equal to at least one and two-tenths (1.20) times the Maximum Annual Debt Service Requirement computed with respect to the additional bonds proposed to be issued, and the Obligations and one times (1.0) times the Maximum Annual Debt Service Requirement on any subordinate lien obligations other than the Obligations intended to be refunded by the proposed additional bonds; provided, however, that if the proposed additional bonds are to be issued for the acquisition or construction of any extension, improvement or replacement to the System, then the estimate of Net Revenues may be for the next three Fiscal Years ending after the time that such improvement, extension or replacement is expected to be placed in service;

(2) The payments required to be made into the Bond Fund and the Reserve Fund must be current, and all payments under any Financial Guaranty Agreement or with respect to any Reserve Fund Credit Facility must be current;

(3) The proceeds of the additional bonds may be used only to (i) make improvements, extensions, renewals or replacements to the System, to purchase an

Acquired System, or to refund Obligations, subordinate lien obligations, or outstanding debt of an Acquired System, (ii) fund necessary reserves related to such additional bonds, (iii) fund capitalized interest related to the additional bonds; or (iv) pay the costs and expenses of issuance and sale of the additional bonds;

(d) All the provisions and covenants of the Resolution relating to creation and investment of funds and the application of Revenues, the operation of the System and charges for services of the System, the remedies of an Authority and the owners of Obligations, the issuance of additional bonds, modification of the resolution and such other provisions hereof as are appropriate may be incorporated by reference into supplemental resolutions authorizing additional bonds, and said provisions when so incorporated shall be equally applicable to the additional bonds issued pursuant to the terms of this Section in all respects and with like force and effect as though said provisions were recited in full in said supplemental resolutions and shall continue to be applicable so long as any such bonds remain outstanding.

Charges for Services Supplied by the System

While the Obligations remain outstanding and unpaid, the District covenants and agrees that it will permit no free service to be furnished to any consumer or user whatsoever; that the charges for all services supplied through the medium of the System to all consumers and users shall be reasonable and just, taking into account and consideration the cost and value of the System and the cost of maintaining, operating, repairing and insuring the System, a proper and necessary allowance for the depreciation thereof, and the amounts necessary for the payment of principal of and interest on all obligations payable from revenues of the System; and that there shall be charged against all users of the services of the System such rates and amounts as shall be fully adequate to comply with the covenants of the Resolution.

Covenants Regarding the Operation of the System

Pursuant to the Resolution, the District covenanted and agreed with the owners of the Obligations so long as the Obligations shall remain outstanding:

(a) The District shall maintain the System in good condition and operate the System in an efficient manner and at reasonable cost.

(b) The District shall maintain insurance on the properties of the System of a kind and in an amount which would normally be carried by private companies engaged in a similar type and size of business, provided, the District shall not be required to insure beyond the limits of immunity provided by Sections 29-20-101 *et seq.,* Tennessee Code Annotated, or other applicable law. The proceeds of any such insurance, except public liability insurance, shall be used to replace the part or parts of the System damaged or destroyed, or, if not so used, shall be placed in the Revenue Fund.

(c) The District will cause to be kept proper books and accounts adapted to the System, will cause the books and accounts to be audited at the end of each Fiscal Year by a recognized independent certified public accountant or a firm of such accountant or accountants and, upon written request, will make available to any registered owner of the Obligations the balance sheet and the profit and loss statement of the District as certified by such accountant or accountants. Each such audit, in addition to whatever matters may be thought proper by the accountant or accountants to be included therein, shall include the following:

(1) A statement in detail of the revenues and expenditures of the System and the excess of revenues over expenditures for the Fiscal Year;

(2) A statement showing beginning and ending balances of each Fund described in the Resolution;

(3) A balance sheet as of the end of the Fiscal Year;

(4) The accountant's comments regarding the manner in which the District has carried out the requirements of the resolution and the accountant's recommendations with respect to any change or improvement in the operation of the System;

(5) The number and classifications of customer service connections to the System as of the end of the Fiscal Year;

(6) The disposition of any Obligation proceeds during the Fiscal Year;

(7) A statement as to all breaches or defaults under the Resolution of which the accountants have knowledge or, in the alternative, a statement that they have no knowledge of any such breach or default.

All expenses incurred in the making of the audits required by this subsection shall be regarded and paid as Current Expenses. The registered owner of any of the Parity Obligations shall have at all reasonable times the right to inspect the System and the records, accounts and data of the District relating thereto. It is further agreed that if the District fails to provide the audits and reports required by this subsection, the registered owner or owners of twenty-five percent (25%) in principal amount of the Parity Obligations may cause such audits and reports to be prepared at the expense of the District.

(d) The District shall continuously own, control, operate, and maintain the System in an efficient and economical manner and on a revenue producing basis and shall at all times prescribe, fix, maintain, and collect rates, fees, and other charges for the services and facilities furnished by the System fully sufficient at all times:

(1) for 100% of the Current Expenses and for the accumulation in the Revenue Fund of a reasonable reserve therefor, in an amount, if any, as shall be determined from time to time by the District; and

(2) such that Net Revenues in each Fiscal Year:

(A) will equal at least 120% of the Debt Service Requirement on the Obligations, and 100% of the Debt Service Requirement on any subordinate lien obligations or other obligations then outstanding for such Fiscal Year;

(B) will enable the District to make all required payments, if any, into the Reserve Fund, on any Reserve Fund Credit Facility Agreement and any required payments under any Reimbursement Agreement;

(C) will enable the District to accumulate an amount, which, in the judgment of the District, is adequate to meet the costs of major renewals, replacements, repairs, additions, betterments, and improvements to the System, necessary to keep the same in good operating condition or as is required by any governmental agency having jurisdiction over the System; and

(D) will remedy all deficiencies in required payments into any of the funds and accounts mentioned in the Resolution from prior Fiscal Years.

(e) The District will perform all duties with reference to the System required by the constitution and laws of the State, including the making and collecting of reasonable and sufficient rates for services rendered by the System as above provided, and will apply the revenues of the System to the purposes and Funds specified in the resolution.

(f) The District will not sell, lease, mortgage, or in any manner dispose of the System, or any part thereof, including any and all extensions and additions that may be made thereto, or any facility necessary for the operation thereof; provided, however, the use of any of the System facilities may at any time be permanently abandoned or the System or any portion of the System or of the System facilities sold or otherwise disposed of, provided that:

(1) The District is in full compliance with all covenants and undertakings in connection with the Obligations then outstanding and payable from the Revenues of the System and any required reserve funds for such Obligations have been fully established and contributions thereto are current;

(2) (A) In the event of sale of all or a portion of the System, (i) if all of the System is sold, the proceeds shall be in an amount at least equal to all principal, premium, if any, and interest on the outstanding Obligations and all subordinate lien obligations or if a portion of the System is sold, then the proceeds of the sale shall be in an amount equal to the outstanding Obligations and the outstanding subordinate lien obligations allocable to such portion of the System and the remaining revenues of the System shall be sufficient to pay principal of, premium, if any, and interest on the Obligations and any subordinate lien bonds and sufficient to be in compliance with the covenants set forth in the Resolution as certified by an independent engineer or engineering firm or a nationally recognized firm of financial feasibility consultants having a favorable reputation for skill and experience in the financial feasibility of water and sewer systems and such proceeds will be applied either (A) to prepayment of a Loan Agreement redemption of Parity Obligations in accordance with the provisions governing repayment of such Loan Agreement and Parity Obligations in advance of maturity or (B) to the purchase of the Parity Obligations at the market price thereof so long as such price does not exceed the amount at which the Parity Obligations could be redeemed on such date as set forth in the Resolution, in addition to the prepayment of a Loan Agreement or (C) to replacement of the facility so disposed of by another facility the revenues of which shall be deposited to the District, or (D) to a separate fund to be held by the District to be used for legally authorized purposes; or (ii) the payment of the principal and Compound Accreted Value of, premium, if any, and interest on the Obligations and subordinate lien bonds shall be assumed by the entity to which the System is sold if such assumption does not violate the covenants set forth in the Resolution; or

(B) The abandonment, sale or disposition is for the purpose of disposing of facilities which are no longer necessary or no longer useful to the operation of the System and the operation of the System or its revenue producing capacity is not materially impaired by such abandonment, sale or disposition or any facilities acquired in replacement thereof are of equivalent or greater value or it is in the best interests of the District to otherwise dispose of all or a part of the System as determined by the Governing Body of the District; and

(3) The District receives an opinion of nationally recognized bond counsel to the effect that the disposition of the System or any portion thereof and use of the proceeds therefrom will not adversely affect the exclusion of interest on the Obligations or any subordinate lien obligations from gross income of the holders thereof for purposes of federal income taxation.

Nothing in the Resolution is intended to prohibit the lease purchase of equipment or facilities of the System hereafter to be put in service or to prohibit the transfer or exchange of service areas to provide for more efficient operation of the System so long as the District is in full compliance with the covenants set forth in the Resolution immediately following such transfer or exchange.

(g) Prior to the beginning of each Fiscal Year, the District shall prepare or cause to be prepared and adopted an annual budget of estimated revenues and Current Expenses and capital expenditures for the System for the ensuing Fiscal Year and will undertake to operate the System within such budget to the best of its ability. The Current Expenses incurred in any year will not exceed reasonable and necessary amounts therefor and the District will not expend any amounts or incur any obligations therefor in excess of the amounts provided for Current Expenses in the budget except upon resolution of the District.

(h) Each officer or employee of the District or any other person, other than banks or other financial institutions, having custody of funds of the System shall be under fidelity bond at all times in reasonable and customary amounts.

(i) The District, either directly or indirectly, will not construct, finance or grant a franchise for the development or operation of facilities that compete for service with the services to be provided by the System or consent to the provision of any such services in the area currently served by the District by any other public or private entity and will take all steps necessary and proper, including appropriate legal action to prevent any such entity from providing such service; provided, nothing in the Resolution shall prohibit the transfer or exchange of service areas to provide for more efficient operation of the System so long as the District is in full compliance with the covenants set forth in the Resolution immediately following such transfer or exchange.

(j) For the purpose of assuring the efficient, impartial and non-political operation of the System for the benefit of the District and the owners of the Obligations from time to time outstanding, the complete and independent control and operation of the System shall continue to be vested in the Governing Body, subject, however, to the obligation and duty on the part of the Governing Body to carry out and perform faithfully all of the covenants and agreements contained in the Resolution. It is agreed with the owners from time to time of the Obligations and made a part of the contract rights which will vest in such owners at the time of delivery of the Obligations that the System will be so operated by the Governing Body.

Remedies of Bond Owners

An Authority and any owner of any Obligations, including the holder or assignee of a Loan Agreement, may either at law or in equity, by suit, action, mandamus or other proceedings, in any court of competent jurisdiction enforce and compel performance of all duties imposed upon the District by the provisions of the Resolution, including the making and collecting of sufficient rates, the proper application of and accounting for Revenues of the System, and the performance of all duties imposed by the terms hereof.

If any default be made in the payment of principal or Compound Accreted Value of or interest on Obligations, then upon the filing of suit by an Authority, its assignee or those succeeding to its rights, or any holder of Obligations, including the holder or assignee of a Loan Agreement, any court having jurisdiction of the action may appoint a receiver to administer the System on behalf of the District with power to charge and collect rates sufficient to provide for the payment of all Obligations and obligations outstanding against the System and for the payment of Current Expenses, and to apply the income and revenues thereof in conformity with the provisions of the resolution.

Defeasance

If the District shall pay and discharge the indebtedness evidenced by Resolution in any one or more of the following ways:

(a) By paying or causing to be paid, by deposit of sufficient funds as and when required with the Paying Agent, the principal of and interest on such Obligations as and when the same become due and payable;

(b) By depositing or causing to be deposited with a trust company or financial institution whose deposits are insured by the Federal Deposit Insurance Corporation or similar federal agency and which has trust powers in trust or escrow, on or before the date of maturity or redemption, sufficient money or Defeasance Obligations, the principal of and interest on which, when due and payable, will provide sufficient moneys to pay or redeem such Obligations and to pay interest thereon when due until the maturity or redemption date (provided, if such Obligations are to be redeemed prior to maturity thereof, proper notice of such redemption shall have been given or adequate provision shall have bee made for the giving of such notice;

(c) By delivering such Obligations to the Paying Agent for cancellation by it; and if the District shall also pay or cause to be paid all other sums payable under the Resolution by he District with respect to such Obligations, or make adequate provision therefore, and by resolution of the Board instruct any such escrow agent to pay amounts when and as required to the Paying Agent for the payment of principal of and interest on such Obligations when due, then and in that case the indebtedness evidenced by such Obligations shall be discharged and satisfied and all covenants, agreements and obligations of the District to the holders of such Obligations shall be fully discharged and satisfied and shall thereupon cease, terminate and become void.

If the District shall pay and discharge the indebtedness evidenced by any of the Obligations in the manner provided in either clause (a) or (b) above, then the registered owners thereof shall be entitled only to payment out of the money or Defeasance Obligations deposited as aforesaid.

Except as otherwise provided in this section, neither Defeasance Obligations nor moneys deposited with the Paying Agent nor principal or interest payments on any such Defeasance Obligations shall be withdrawn or used for any purpose other than, and shall be held for trust for, the paying of the principal of and interest on said Obligations; provided that any cash received from such principal or interest payments on such Defeased Obligations deposited with the Paying Agent, (a) to the extent such cash will not be required at any time for such purpose, shall be paid over to the District as received by the Paying Agent and (b) to the extent such cash will be required for such purpose at a later date, shall, to the extent practicable, be reinvested in Defeasance Obligations maturing at times and in amounts sufficient to pay when due the principal and interest to become due on said Obligations on or prior to the redemption date or maturity date thereof, as the case may be, and interest earned from such reinvestments shall be paid over to the District, as received by the Paying Agent.

Modification of Resolution

(a) The resolution may be amended without the consent of or notice to the registered owners of the Obligations for the purpose of curing any ambiguity or formal defect or omission in the Resolution.

(b) In addition to the amendments to the resolution without the consent of registered owners as referred to in subsection (a) above or subsection (c) below, the registered owners of a majority in aggregate principal amount of the Parity Obligations at any time outstanding (not including in any case any Parity Obligations which may then be held or owned by or for the account of the District but including such refunding bonds as may have been issued for the purpose of refunding any of such Parity Obligations if such refunding bonds shall not then be owned by the District) shall have the right from time to time to consent to and approve the adoption by the Governing Body of a resolution or resolutions modifying any of the terms or provisions contained in the resolution; provided, however, that the resolution may not be so modified or amended in such manner, without the consent of 100% of the registered owners of the Obligations, as to:

(1) Make any change in the maturities or redemption dates of the Parity Obligations;

(2) Make any change in the rates of interest borne by the Parity Obligations;

(3) Reduce the amount of the principal payments or redemption premiums payable on the Parity Obligations;

(4) Modify the terms of payment of principal of or interest on the Parity Obligations or impose any conditions with respect to such payments;

(5) Affect the rights of the registered owners of less than all of the Parity Obligations then outstanding;

(6) Reduce the percentage of the principal amount of the Parity Obligations the consent of the registered owners of which is required to effect a further modification.

For purposes of this subsection (b) the aggregate principal amount of any Hedge Agreement, shall be deemed to be zero, and the aggregate principal amount with respect to any Reimbursement Agreement shall be the aggregate principal amount of Obligations outstanding relating to such Reimbursement Agreement.

Whenever the District shall propose to amend or modify the resolution under the provisions of this Section, it shall cause notice of the proposed amendment to be mailed by first-class mail, postage prepaid, to the owner of each Parity Obligation then outstanding. Such notice shall briefly set forth the nature of the proposed amendment and shall state that a copy of the proposed amendatory resolution is on file in the office of the District for public inspection.

Whenever at any time within one (1) year from the date of mailing of said notice there shall be filed with the Secretary of the Governing Body an instrument or instruments executed by the registered owners of at least a majority in aggregate principal amount of the Parity Obligations then outstanding as in this Section defined, which instrument or instruments shall refer to the proposed amendatory resolution described in said notice and shall specifically consent to and approve the adoption thereof, thereupon, but not otherwise, the District may adopt such amendatory resolution and such resolution shall become effective and binding upon the owners of all Parity Obligations.

If the registered owners of at least a majority in aggregate principal amount of the Parity Obligations outstanding as in this section defined, at the time of the adoption of such amendatory resolution, or the predecessors in title of such owners, shall have consented to and approved the adoption thereof as provided in the Resolution, no registered owner of any Parity Obligations, whether or not such owner shall have consented to or shall have revoked any consent as in this Section provided, shall have any right or interest to object to the adoption of such amendatory resolution or to object to any of the terms or provisions therein contained or to the operation thereof or to enjoin or restrain the District from taking any action pursuant to the provisions thereof.

Any consent given by the registered owner of a Parity Obligation pursuant to the provisions of this Section shall be irrevocable for a period of six (6) months from the date of the publication of the notice above provided for and shall be conclusive and binding upon all future registered owners of the same Parity Obligation during such period. Such consent may be revoked at any time after six (6) months from the date of publication of such notice by the registered owner who gave such consent or by a successor in title by filing notice of such revocation at the District office, but such revocation shall not be effective if the registered owners of a majority in aggregate principal amount of the Parity Obligations outstanding as in this Section defined shall have, prior to the attempted revocation, consented to and approved the amendatory resolution referred to in such revocation.

The fact and date of the execution of any instrument under the provisions of this Section may be proved by the certificate of any officer in any jurisdiction who by the laws thereof is authorized to take acknowledgments of deeds within such jurisdiction, that the person signing such instrument acknowledged before him the execution thereof, or may be proved by an affidavit of a witness to such execution sworn to before such officer.

The amount (number(s)) of the Parity Obligations owned by any person executing such instrument and the date of the ownership of the same shall be proved by reference to the Obligation registration records maintained by the Registration Agent, which records shall constitute conclusive proof of the ownership thereof.

(c) Notwithstanding anything in the Resolution to the contrary, no amendment to the resolution may be made while any other Loan Agreement is outstanding unless consent is obtained from all persons for whom consent must be obtained to amend.

Prepayment Notices

The President, the Secretary and the General Manager of the District, or any of them, are authorized to provide notice of prepayment of each Refunded Loan Agreement and the Refunded Bonds the forms of which are attached to the Resolution.

Continuing Disclosure

The District covenanted and agreed in the Resolution that it will provide financial information and material event notices if and as required by Rule 15c2-12 of the Securities Exchange Commission.

APPENDIX D

GENERAL PURPOSE FINANCIAL STATEMENTS

OF

WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE

FOR THE FISCAL YEAR ENDED

June 30, 2016

The General Purpose Financial Statements are extracted from the Financial Statements with Report of Certified Public Accountants of the District for the fiscal year ended June 30, 2016, which is available upon request from the District.

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THE WEST KNOX UTILITY DISTRICT
OF KNOX COUNTY

Knoxville, Tennessee

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE YEARS ENDED
June 30, 2016 and 2015

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

June 30, 2016 and 2015

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INTRODUCTORY SECTION

November 10, 2016

Board of Commissioners of
The West Knox Utility District
of Knox County
Knoxville, Tennessee

State law and the Comptroller of the Treasury, State of Tennessee, requires that every political subdivision or municipal corporation publish within six months of the close of each fiscal year-end, a complete set of audited financial statements. This Comprehensive Annual Financial Report (CAFR) of The West Knox Utility District of Knox County (the District) is published to fulfill these requirements for the fiscal years ended June 30, 2016 and 2015.

Internal Controls

Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements.

Independent Audit

Parsons and Wright, CPA's and Pugh & Company, P.C. have issued unqualified ("clean") opinions on the District's financial statements for the years ended June 30, 2016 and 2015. As stated in the independent auditor's report, the audits were conducted in accordance with generally accepted auditing standards and *Government Auditing Standards*, issued by the Comptroller General of the United States. The independent auditor's report is located at the front of the financial section of this report.

Management's Discussion and Analysis (MD&A)

Generally Accepted Accounting Principles require that management provide a narrative introduction, overview, and analysis to accompany the financial statements in the form of MD&A. This Letter of Transmittal is designed to complement MD&A and should be read in conjunction with it. The District's MD&A can be found immediately following the Independent Auditor's Report.

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www.wkud.com

Profile of the District

The District was created under the authority of Title 7, Chapter 82 of the 1937 Utility District Law of the State of Tennessee. The District began operations on October 18, 1954. The purpose of the District is to "acquire, construct, improve, extend, operate, and maintain a wastewater and water treatment system." The District serves 26,555 water and 21,819 wastewater customers in the northwestern portion of Knox County. The District's primary source of water is drawn from the Clinch River that forms Melton Hill Lake which borders Knox and Anderson counties.

The District is governed by a Board of Commissioners composed of three citizens who reside in or are customers of the District. Board members are appointed by the Knox County Mayor for a term of four years.

The District's capital assets consist of two water treatment plants, one wastewater treatment facility, one office building and related maintenance facility, and five water reservoir tanks. The collection system, consisting of mains, laterals and pump stations, is owned and maintained by the District.

The District receives no financial support from Knox County, Tennessee and has no taxing authority. The District's water and wastewater revenues are derived from charges based upon metered water consumption of customers. The water and wastewater rates are established by the District's Board of Commissioners.

Budgeting

The District adopts flexible annual operating and capital budgets. Budgets are adopted on a basis consistent with GAAP. The current operating budget details the District's plans to earn and expend funds for charges incurred for operation, maintenance, certain interest and general functions, and other charges for the fiscal year. The capital budget details the plan to receive and expend cash basis capital contributions, grants, borrowings and certain revenues for capital projects. During 2016 and 2015 there were no significant budget amendments. The District's budgets are projections and are not legally binding.

Financial Overview

During 2016, the District's operating income was $6.2 million which was $1.0 million more than 2015 or 19%. The District's pledged revenue bond coverage ratio decreased to 3.36 in 2016 vs. 4.01 in 2015. The operating income increased mainly due to an increase in water and wastewater revenues by increasing rates charged to customers.

Local Economy

The District is located within the Knoxville Metropolitan Statistical Area (MSA) which includes Knox, Blount, Anderson, Sevier, Loudon and Union Counties. The Knoxville MSA is also the trade center for several counties in East Tennessee, and parts of Kentucky, Virginia and North Carolina.

For calendar year-ended 2015, the unemployment rates according to the U.S. Bureau of Labor Statistics for Knox County, State of Tennessee and the U.S. were 4.8%, 5.6% and 5.3%, respectively.

Median household per capita income in calendar year 2014 for Knox County, State of Tennessee and the U.S. was $43,012, $40,457 and $46,049 respectively.

The Knoxville MSA has several large employers including the Tennessee Valley Authority, H&G Television Network, U.S. Department of Energy Contractors, Alcoa Aluminum, several hospitals, Clayton Homes, Denso, the University of Tennessee, and several regional shopping malls and centers.

Long-Term Financial Planning

The District has projected a 1% to 2% annual increase in the number of customers over the next five years. The District is currently making several capital improvements including several water line improvements and extensions.

The financing of the District's capital improvements is by internally generated cash flows and the issuance of long-term debt. The District's debt coverage ratio has consistently been in excess of the required bond covenants.

Major Initiatives

Several water and wastewater projects were completed during the recent fiscal year and others are still underway.

A summary of these projects is as follows:

- CMOM program annual report was submitted; semiannual reports regarding the progress towards implementing the Corrective Action Plan (CAP) were submitted as required in the September, 2011 EPA Order; the Vulnerability Assessment and Emergency Response Plan were reviewed and revised as necessary.
- Updating of the hydraulic modeling of the water distribution system is continuing as upgrades and additions to the system are made. WKUD participated in a regional/multi-system hydraulic modeling program which included system interconnectivity analyses and emergency operating scenarios. In order to improve the volume of water to one of the interconnections, a booster pump station was designed for the Maitland Woods area of the water distribution system. The installation of this BPS will allow for the emergency connection to flow at approximately 1500 gpm (instead of the existing 500 gpm range) while still maintaining adequate service to the existing customers. The BPS project was constructed and was put into service in August 2016.
- <u>New WWTP Design</u>: Study for a new 6 MGD WWTP with discharge to Melton Hill Lake (Clinch River main channel) was completed to determine the most cost effective processes which will provide the required level of treatment while considering many factors such as construction costs, long term energy usage, repair and maintenance costs, operation costs and other issues. The State of TN issued the NPDES permit for the new WWTP discharge on March 29, 2013 with proposed discharge limits essentially equivalent to advanced secondary treatment requirements. These limits reinforce the decision to move the discharge location since the existing discharge location would most likely have received advanced tertiary limits with stringent nutrient removal requirements as early as this year. The need for this facility is continuing to be driven by increased growth in the system demand for sewer service in both the sewered and unsewered areas of the system; the existing hydraulic loading to the existing WWTP very often exceeds the rated hydraulic capacity of the existing facility. The operating staff is to be commended for their excellent level of operations required to keep the facility in compliance with the current discharge limits. Detailed designs on the proposed new wastewater treatment plant were completed in January 2016. The plans and specifications were submitted to TDEC for approval in February 2016 and approved in March 2016. Once approved by TDEC the project was advertised and bid on April 21, 2016. Four bids were received with the lowest being submitted by Judy Construction Inc. in the amount of $41,255,000. WKUD's Board awarded Judy Construction the bid at the April Board meeting. Construction began in July 2016.

  Other major components of the overall project include a new headworks (screening and grit removal) and a new 15 MGD transfer sewage pumping station at the existing Karns WWTP, conversion of the existing oxidation ditch tankage to sidestream equalization, a new force main from the existing Karns WWTP to the new WWTP, and a treated effluent outfall line from the new WWTP to the submerged discharge location in Melton Hill Reservoir. Bidding and construction of these additional project components will be staged to allow for completion closely coinciding with completion of the new WWTP which is anticipated in calendar year 2018.
- <u>Utility Mapping System</u>: The water and sewer line mapping system using the Knox County GIS system as a base for the maps is continuing to be updated using WKUD and contract personnel. Links to scanned as-built drawings are being added to the mapping system database.
- <u>EPA Administrative Order</u>: The EPA Administrative Order issued on September 26, 2011, was still in effect for the fiscal year which emphasized I/I rehabilitation in Sub Basins 9 and 10 as well as some other specific overflow locations. It should be noted that this was the last year of the order and all projects required in the order have been completed within the timeframes required by the order. WKUD met with EPA in Atlanta, GA on August 16, 2016 to discuss the possibility of closing the order versus extending or closing and issuing another order. In a letter from EPA to WKUD dated September 20, 2016 EPA agreed to close the order.

- Basins 1-6 Rehabilitation Project Phase III: The Basins 1-6 Rehabilitation Project Phase III was bid in November 2014. This project consists of the installation of a CIPP liner into approximately 36,900 linear feet of sanitary sewer pipe varying from 8-inch to 12-inch diameter pipe, open cut replacement of approximately 220 linear feet of 8-inch sanitary sewer pipe from access point to access point, and 400 linear feet of pipe bursting of 6-inch (upsizing to 8-inch) sanitary sewer pipe from access point to access point. The project also includes approximately 100 cured-in-place and 160 open cut lateral replacements and approximately 1,950 vertical feet of manhole lining with an epoxy based liner, 3 watertight manhole lid installations, 5 manholes that require the castings to be realigned and sealed, and 5 manholes requiring a new frame and cover. This project was completed in February 2016.

- 2014 Sanitary Sewer Basin 9/Harrell Road Sewer Rehabilitation Project: The 2014 Sanitary Sewer Basin 9/Harrell Road Sewer Rehabilitation Project is a part of the District's Corrective Action Plan (CAP). This project was bid in March 2015. The project includes approximately 14,200 LF of 8 and 18 inch CIPP pipe rehabilitation, 1,000 LF of 8 inch pipe replacement and rehabilitation of 162 manholes along with 15 point repairs and rehabilitation by CIPP or replacement of approximately 130 service laterals. Approximately 50 manholes were also repaired to correct problems with manhole frames, covers, etc. This project was completed in March 2016.

- 30-inch Sewer Interceptor Repair/Replacement: In late February 2016 a hole in a 30-inch wastewater interceptor line was discovered at a crossing of Beaver Creek upstream of the Westbridge Industrial Park. This hole was allowing creek water to enter the wastewater system and reduce overall capacity of the wastewater system and was adding significant inflow to be pumped and treated at the Beaver Creek WWTP. A temporary berm was installed around the affected area immediately as a temporary fix to block off the majority of the creek flow until a project could be developed to replace the pipe. It was critical that a permanent repair be executed in short time frame. The construction began in late April 2016 and consisted of the replacement of approximately 375 LF of 30-inch pipe, the replacement of 160 LF of 27-inch pipe, the addition of 2 new manholes, and the replacement of 1 manhole with a junction box to improve flow characteristics of the system in that area. The project was completed in late June 2016.

- Flow Monitoring and Other System Rehab: The District continues to maintain a flow monitoring network to provide data on the effectiveness of the current sewer rehabilitation work and to assist in prioritizing the areas that need to be investigated and rehabilitated.

  In addition to contracted construction projects, WKUD continues sewer line and pump station rehabilitation, upgrades and repair/maintenance projects with their own sewer maintenance crews.

- Ten Mile Basin I/I and Flow Routing Study: Design for replacement of the Ten Mile SPS was completed to increase the pumping capacity from a peak of 4 MGD to a peak of 6 MGD in order to handle the peak wet weather flows in this area. The high peak wet weather flows have historically included occasional bypassing of flow into the FUD collection system when flows exceeded the 4 MGD SPS capacity. The bypass to FUD was "closed" last year which increases the importance of the rehab efforts and SPS capacity increase for this basin. Bids for the SPS Upgrade were opened on May 27, 2015, with 4 bids received ranging from $3,841,000 to $5,276,000. Since all bids were higher than the anticipated budget (due to site access limitations and constructability issues), negotiations were conducted for the purchase of an alternate site which would allow for better access and possible lower construction costs after revisions of the construction drawings and re-bidding of the project are completed. Five acres were purchased by WKUD from Knox County for a cost of approximately $50K. A redesign was completed and the project is expected to bid in fall 2016.

  Sewer rehabilitation efforts in this area to date have proven successful and, thus far, have resulted in much lower peak wet weather flow rates and volumes than comparable rain events have produced in past years.

- George Lovelace Road, Lovelace Road and Shoreline Estates Waterline Replacement: The District completed the construction for the replacement of approximately 17,400 linear feet of deteriorated and problematic 2 ¼" galvanized and 6" PVC water lines with 6-inch DIP Class 350 water line. The new lines extended from Diggs Road along George Lovelace Road and Lovelace Road and throughout the Shoreline Estates subdivision as well as a section along Graybeal Road. The project was completed in June 2016.

- Parkwest Boulevard Water Line Replacement Project: The District completed the construction of approximately 5,300 linear feet of 12-inch DIP Class 350 water line and approximately 1,500 linear feet of 6-inch DIP Class 350 water line on Parkwest Boulevard, Park 40 North Boulevard and Christian Academy Boulevard. This new water line is a line that supplies water to Parkwest Hospital and replaced an existing 8-inch cast iron and an existing 6-inch PVC water line that served Park West Boulevard supplying water to several businesses and the hospital. This project also provided WKUD with a water line loop that extended from Dutchtown Road to Parkwest Boulevard and will provide more redundancy to supply water to Park West Boulevard and to Parkwest Hospital. This project was completed in June 2016.
- In-House Construction Projects: The District continues to monitor leakage and line breaks on their system and will replace segments of lines with a history of problems.
- Review of Proposed Developments: WKUD continues to receive and review utility portions of proposed developments (commercial and residential) within their service area and evaluate the adequacy of existing water and sewer facilities to continue meeting the increasing demands on the system. According to District records, the following development projects are in progress:
    - 2015-2016 Approved Development Completed (Currently ready to set meters):
        - Creekside Manor S/D – 140 Lots
        - Hidden Meadows Phase II, Unit III (Hidden Meadows Development is comprised of 180 lots total)
        - Greystone Vista Apartments – 156 Units
        - Hattie's Place – 62 Lots
        - Grantham Place – 10 Lots
    - Approved Developments Expected to Complete in 2015-2016:
        - Zaxby's Hardin Valley – 1 Lot
        - Palmer Subdivision – 4 Lots
        - Pellissippi Storage – 1 Lot
        - Hardin Valley Heights – 38 Lots
        - Massey Creek – 98 Lots
        - Hidden Meadows Phase II Unit IV – (Total Lots Include Above)
        - Grace Student Ministry Building – 1 Lot

As can be seen in the project descriptions above, WKUD has undertaken necessary projects requiring major capital investments while continuing to maintain their system by replacing small galvanized water lines (thus reducing water loss) with more reliable lines of adequate size to deliver flows and pressures that meet state regulations, continuing with sewer line rehabilitation and repair projects to reduce the amount of extraneous flow entering the sewer system, along with other in-house projects to improve the water distribution and wastewater collection systems.

These water and wastewater improvements will enable the WKUD to continue serving the citizens within their jurisdiction with an adequate supply of potable water and means of treating the wastewater flows to meet increasingly more stringent effluent standards.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the District for its CAFR for the fiscal year ended June 30, 2015. This was the 12th consecutive year that the District received this award. In order to be awarded a Certificate of Achievement, the District must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgements

The preparation of this CAFR results from the combined efforts of the staff of the Finance Department and technical assistance provided by our independent auditors. Those involved have our sincere appreciation for the individual and collective contributions made in preparation of the report. Thank you very much for your professional dedication.

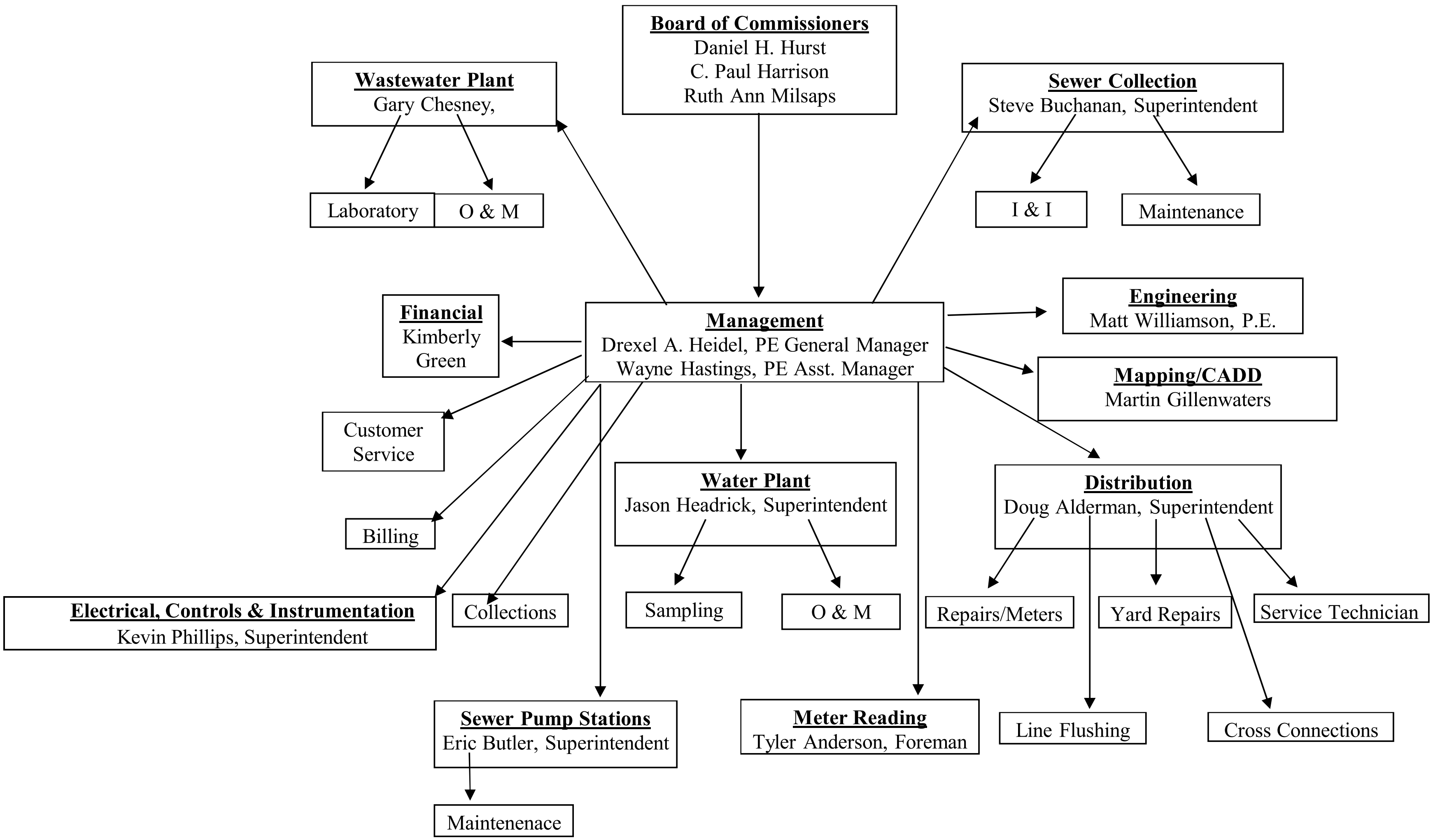
Recognition and appreciation are also extended to the Board for its continued guidance of the operation of the District in a financially responsible and progressive manner.

Respectfully submitted,

Drexel Heidel
General Manager

Kimberly Green
Comptroller

West Knox Utility District
Organizational Chart
June 30, 2016



THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

ROSTER OF DISTRICT OFFICIALS AND OTHERS

June 30, 2016

Board of Commissioners	**Expiration of Term**
Daniel H. Hurst, President	December 31, 2017
Paul Harrison, Vice-President	December 31, 2019
Ruth A. Milsaps, Secretary	December 31, 2016

Management

Drexel A. Heidel, PE, General Manager

Wayne Hastings, Assistant Manager

Kimberly Green, Comptroller

General and Bond Counsel

John Owings, Attorney at Law
Robertson & Overbey
Knoxville, Tennessee

Consulting Engineer

Louis Robbins
GRW Engineers, Inc.
Nashville, Tennessee

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

West Knox Utility District of Knox County, Tennessee

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO

FINANCIAL SECTION

PARSONS & WRIGHT

CERTIFIED PUBLIC ACCOUNTANTS

Joe Savage
Marie I. Niekerk
Josh Stone
Earl O. Wright - 1988 - 2002

Stephen J. Parsons - Retired
Rebecca Hutsell
Sharon Conder
William R. Scandlyn - 1988 - 1999

INDEPENDENT AUDITOR'S REPORT

Board of Commissioners
The West Knox Utility District of Knox County
Knoxville, Tennessee

Report on the Financial Statements

We have audited the accompanying financial statements of The West Knox Utility District of Knox County (the "District"), which comprise the proprietary fund balance sheet and the statement of fiduciary net position – pension trust fund, as of June 30, 2016, and the related proprietary fund statement of revenues, expenses, and changes in net position and cash flows and the statements of changes in fiduciary net position – pension trust fund for the year then ended, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Governmental Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the proprietary fund financial statements referred to above present fairly, in all material respects, the financial position of the District, as of June 30, 2016, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America. Also, in our opinion, the pension trust fund financial statements referred to above present fairly, in all material respects, the pension trust fund net position, as of June 30, 2016, and the changes in pension trust fund net position for the year then ended in accordance with account principles generally accepted in the United States of America.

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Other Matters

The financial statements of The West Knox Utility District of Knox County as of June 30, 2015, and for the year then ended, were audited by other auditors. These auditors expressed an unqualified opinion on these financial statements in their report dated November 13, 2015.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 3 through 11 and the Schedule of Changes in Net Pension Liability and Related Ratios, the Schedule of District's Pension Contributions, the Schedule of Investment Returns, and the Schedule of Changes in the District's Net Pension Liability and Related Ratios Based on Participation in the Public Employee Pension Plan of TCRS on pages 48 through 51 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The introductory, supplementary information and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The information included in the supplementary information section as listed in the table of contents is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. The supplementary information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 10, 2016, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

Parsons& Wright

Parsons & Wright
Certified Public Accountants
Kingston, Tennessee

November 10, 2016

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's analysis of The West Knox Utility District of Knox County's (the District) financial condition and results of operations for the years ended June 30, 2016, 2015 and 2014. This information should be read in conjunction with the accompanying financial statements and the additional information we have furnished in our letter of transmittal on pages i to vi.

FINANCIAL HIGHLIGHTS

- During 2016, 2015 and 2014 the District produced 2.18, 2.10 and 1.89 billion gallons of water, which represents an increase (decrease) of 4%, 10% and (4)%, from the previous year. During 2016, 2015 and 2014 the District treated 1.49, 1.31 and 1.33 billion gallons of wastewater, representing an increase (decrease) of 14%, (2)% and 0%, respectively, from the previous years.

  Total assets and deferred outflows at year-end 2016, 2015 and 2014 were $178.8, $164.0 and $164.2 million and exceeded liabilities by $87.3, $82.6 and $81.7 million. Of the total net position, $11.6, $13.0 and $18.5 million was unrestricted and was available to support operations. During 2016, 2015 and 2014 net position increased by $4.65, $.9 and $4.1 million.

- Operating revenues were $22.9, $21.0 and $18.9 million during 2016, 2015 and 2014 an increase of $1.9, $2.1 and $1.7 million, respectively from the previous years.

- Operating expenses before depreciation increased (decreased) by $739, $704 and $(553) thousand during 2016, 2015 and 2014, respectively.

- Operating income for 2016, 2015 and 2014 was $6.2, $5.2 and $4.5 million, representing a 20%, 15% and 67% increase 2015 from previous years. The change in net position before capital contributions was $2.7, $(.2) and $2.9 million for 2016, 2015 and 2014, respectively.

- The ratios of operating income to total operating revenues were 27.3% for 2016, 24.8% for 2015 and 23.8% for 2014.

- Debt service coverage ratio for the District's revenue bonds was 3.36 for 2016, 4.01 for 2015 and 3.57 for 2014, exceeding the 1.20 required by various bond covenants.

- Cash capital contributions were $204, $43 and $6 thousand for 2016, 2015 and 2014. Developer contributions of facilities were $1.8, $1.1 and $1.2 million for 2016, 2015 and 2014.

- In an effort to replace aging infrastructure, and to accommodate growth, the District has embarked on several water and wastewater projects. The amount of construction in progress was $15.1, $13.0 and $12.1 million at year-end 2016, 2015, and 2014, respectively. The remaining contractual commitments were $42.4, $7.5 and $2.6 million at June 30, 2016, 2015 and 2014, respectively.

- Customer growth in water billing units in the District increased (decreased) by 1.6%, (.8)% and 2.3% during 2016, 2015 and 2014, respectively and have increased 18% over the last ten years.

MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

OVERVIEW OF THE ANNUAL FINANCIAL STATEMENTS

Management's Discussion and Analysis (MD&A) serves as an introduction to the basic financial statements and supplementary information. The MD&A represents management's examination and analysis of the District's financial condition and performance. Summary financial statement data, key financial and operational indicators used in the District's budget, bond resolutions and other management tools are used for this analysis.

The financial statements report information about the District using full accrual accounting methods as utilized by similar business activities in the private sector. However, rate-regulated accounting principles applicable to private sector utilities are not used by government utilities.

The proprietary fund financial statements include a balance sheet; a statement of revenues, expenses, and changes in net position; a statement of cash flows; and notes to the financial statements. The balance sheet presents the financial position of the District on the accrual basis of accounting. While the balance sheet provides information about the nature and amount of resources and obligations at year-end, the statement of revenues, expenses, and changes in net position presents the results of the business activities over the course of the fiscal year and information as to how the net position changed during the year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. This statement also provides certain information about the District's recovery of its costs. The District's rates are based on a cost of service rate study that is updated annually. Rate setting policies use different methods of cost recovery not fully provided for by generally accepted accounting standards. The primary objectives of the rate model are to improve equity among customer classes and to ensure that capital costs are allocated on the basis of long-term capacity needs, ensuring that growth pays for growth. The statement of cash flows presents changes in cash and cash equivalents, resulting from operational, financing, and investing activities. This statement presents cash receipts and cash disbursement information, without consideration of the earnings event, when an obligation arises, or depreciation of capital assets.

The pension trust fund financial statements are used to account for the resources held in trust for the benefit of the participants in the District's single employer pension plan. These resources are not available to support the District's operations. The accounting for the pension trust fund is much like that used for the proprietary fund discussed above.

The notes to the financial statements provide required disclosures and other information that are essential to a full understanding of material data provided in the statements. The notes present information about the District's accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies and subsequent events, if any.

FINANCIAL ANALYSIS

The following comparative condensed proprietary fund financial statements and other selected information provides key financial data and indicators for management, monitoring, and planning.

Condensed Balance Sheets
(In Thousands of Dollars)
June 30, 2016 and 2015, 2014

	2016	2015	2014
ASSETS AND DEFERRED OUTFLOWS			
Current Assets	$ 29,544	$ 23,079	$ 25,239
Capital Assets:			
Producing – Net	132,018	126,201	122,307
Construction in Progress	15,105	12,971	12,124
Other	580	551	993
Total Assets	177,247	162,802	160,663
Deferred Outflows of Resources	1,558	1,246	3,583
TOTAL ASSETS AND DEFERRED OUTFLOWS	$ 178,805	$ 164,048	$ 164,246
LIABILITIES AND DEFERRED INFLOWS			
Current Liabilities	$ 3,468	$ 3,207	$ 4,115
Non-Current Liabilities	82,236	74,593	75,268
Total Liabilities	85,704	77,800	79,383
Deferred Inflows of Resources	5,812	3,609	3,136
NET POSITION			
Net Investment in Capital Assets	75,638	69,590	62,875
Restricted:			
Debt Service	67	43	392
Unrestricted	11,584	13,006	18,460
Total Net Position	87,289	82,639	81,727
TOTAL LIABILITIES, DEFERRED INFLOWS AND NET POSITION	$ 178,805	$ 164,048	$ 164,246

FINANCIAL ANALYSIS (Continued)

Condensed Statements of Revenues, Expenses,
and Changes in Net Position
(In Thousands of Dollars)
For The Years Ended June 30, 2016, 2015 and 2014

	2016	2015	2014
Operating Revenues			
Water, Net	$ 9,089	$ 8,612	$ 7,882
Wastewater	12,124	10,875	9,577
Connection Fees	945	894	837
Customer Forfeited Discounts	298	286	259
Service Fees	129	120	112
Wastewater Inspection Fees	14	14	12
Miscellaneous	282	200	243
Total Operating Revenues	22,881	20,999	18,922
Operating Expenses			
Water Purification and Supply	1,164	1,103	1,114
Wastewater Collection and Treatment	3,036	2,439	2,221
Water Treatment and Distribution	2,880	2,895	2,547
Capacity Management Operations Maintenance (CMOM)	1,561	1,545	1,466
Shop and General Maintenance	390	333	471
Customer Accounting	132	122	123
Administrative and General	2,101	2,089	1,881
Depreciation	5,375	5,270	4,601
Total Operating Expenses	16,639	15,795	14,425
Operating Income	6,242	5,204	4,497

MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

FINANCIAL ANALYSIS (Continued)

Condensed Statements of Revenues, Expenses,
and Changes in Net Position (Continued)
(In Thousands of Dollars)
For The Years Ended June 30, 2016, 2015 and 2014

	2016	2015	2014
Non-Operating Revenues (Expenses)			
Investment Income	187	56	137
Interest Expense	(2,642)	(2,068)	(1,714)
Change in Fair Value of Derivative - Interest Rate Swap	(906)	(3,397)	0
Debt Issuance Expense	(245)		
Other	26	0	4
Total Non-Operating Revenues (Expenses) - Net	(3,580)	(5,409)	(1,573)
Increase (Decrease) in Net Position Before Capital Contributions	2,662	(205)	2,924
Capital Contributions			
Cash Contributions	204	43	6
Non-Cash	1,784	1,074	1,217
Total Capital Contributions	1,988	1,117	1,222
Change in Net Position	4,650	912	4,146
Net Position, Beginning of Year	82,639	81,727	77,581
Net Position, End of Year	$ 87,289	$ 82,639	$ 81,727

MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

OTHER SELECTED INFORMATION

Selected Data:

	2016	2015	2014
Employees at Year-End	71	68	65
Average Employees	70	67	64
Customers (Billing Units) at Year End:			
Water	26,555	26,139	26,347
Wastewater	21,819	21,547	21,562
Water (Millions of Gallons)			
Treated (Pumped)	2,158	2,081	1,893
Sold and Consumed	1,741	1,699	1,693
Wastewater Treated (Millions of Gallons)	1,490	1,313	1,334
Per Average Employee:			
Operating Revenues	$ 329,223	$ 315,768	$ 295,656
Operating Expenses	239,410	237,519	225,391
Average Realized Rates per 1,000 Gallons of Water Sold:			
Water - Residential	$ 5.31	$ 5.18	$ 4.79
Wastewater - Residential	9.09	8.71	7.60
Ratio of Operating Revenues to:			
Operating Expenses	1.38	1.33	1.31
Operating Expenses - Net of Depreciation	2.03	2.00	1.93
Total Assets	0.13	0.13	0.12
Net Position	0.26	0.25	0.23
Debt Related Ratios:			
Long-Term Liabilities to Net Position	0.94	0.90	0.92
Long-Term Liabilities to Total Assets	0.46	0.45	0.46
Operating Coverage	3.36	4.01	3.57

GENERAL TRENDS AND SIGNIFICANT EVENTS

PROPRIETARY FUND FINANCIAL CONDITION

Total assets and deferred outflows at year-end 2016, 2015 and 2014 were $178.8, $164.0 and $164.2 million and exceeded liabilities by $87.3, $82.6 and $81.7 million. Of the total net position, $11.6, $13.0 and $18.5 million was unrestricted and was available to support operations. During 2016, 2015 and 2014 net position increased by $4.65, $.9 and $4.1 million. During 2016 and 2015 the fair value of the District's interest rate swap declined by $.9 and $3.4 million. During 2014 the interest rate swap was considered an effective hedging instrument.

Net accounts receivable at year-end 2016, 2015 and 2014 was $3.0, $2.6 and $2.3 million which increased by 16%, 13% and 5% than the previous years. At 2016 year-end, 81% of accounts receivable were current within 30 days. The District's provision for bad debt expense for 2016, 2015 and 2014 was $163, $97 and $103 thousand.

PROPRIETARY FUND RESULTS OF OPERATIONS

Operating Revenues

Revenues from operations fall into three general categories: water service, wastewater service and ancillary charges. Ancillary charges include connection fees, account set up and penalty fees, and charges for miscellaneous billed services. Operating revenues were $22.9, $21.0 and $18.9 million during 2016, 2015 and 2014 an increase of $1.9, $2.1 and $1.7 million, respectively from the previous years.

The average realized rate from water sales was $5.31 per thousand gallons in 2016, $5.18 in 2015, and $4.79 in 2014.

Capital Contributions

The District collects water and wastewater connection fees to ensure that current customers do not bear the burden of growth. These fees are paid at the time a new customer water meter is connected to the system. In addition, the District accepts cash contributions and new water and wastewater lines that are donated by residential and commercial real estate developers.

Capital contributions during 2016, 2015 and 2014 consisted of the following:

	2016	2015	2014
Cash Capital Contributions from Various Developers	$ 203,654	$ 43,350	$ 5,100
Donated Lines by Developers	1,784,270	1,074,426	1,216,660
Total	$ 1,987,924	$ 1,117,776	$ 1,221,760

MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

GENERAL TRENDS AND SIGNIFICANT EVENTS (Continued)

Expenses

Operating expenses, excluding depreciation, increased (decreased) by $739, $704 and $(553) thousand in 2016, 2015 and 2014, respectively. This was a result of significant increases (decreases) in:

	2016	2015	2014
Salaries and Benefits	$ 109,048	$ 385,469	$ (51,604)
Power Purchased	31,328	14,249	(33,689)
Repairs and Maintenance	84,564	46,511	(276,931)
CMOM Program	52,491	79,674	50,561
Chemicals	62,015	(83,418)	(8,582)
Legal	11,083	13,702	(90,175)
Treatment of Wastewater	278,089	2,445	(23,469)
Treatment of Water	76,932	147,838	12,195
Sludge Disposal	75,757	13,058	(66,068)
Other	(42,307)	84,472	(64,808)
Total	$ 739,000	$ 704,000	$ (552,570)

PROPRIETARY FUND CAPITAL ASSETS

The District is undergoing an extensive water and wastewater line relocation, replacement, and extension program. The reasons for these replacements are aging infrastructure that has reached or exceeded its useful life, upgrades to accommodate growth, and relocation of water and sewer lines due to state and county road projects.

During 2016, 2015 and 2014, the District increased its capital assets before depreciation by $13.2, $10.0, and $14.4 million, respectively. This increase is due to the following:

	2016	2015	2014
Water Line Extensions and Improvements	$ 3,286,441	$ 449,743	$ 6,618,769
Water Plant Upgrades	504,116	3,056,403	20,634,484
Wastewater Lines	6,201,061	4,877,253	5,132,463
Wastewater Plant Improvements	551,501	248,470	62,152
Office Buildings and Equipment	646,424	532,010	650,124
Land and Easements	2,665	0	0
Disposals	(154,466)	(35,484)	(17,717)
	11,037,742	9,128,395	33,080,275
Construction in Progress-Net	2,133,327	847,419	(18,725,744)
Total	$ 13,171,069	$ 9,975,814	$ 14,354,531

Depreciation expense of the District's system increased by $105, $668 and $422 thousand in 2016, 2015 and 2014, respectively.

The District's capital asset activity for 2016 and 2015 is described in Notes 4 and 5 to the financial statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS (Continued)

GENERAL TRENDS AND SIGNIFICANT EVENTS (Continued)

PROPRIETARY FUND DEBT

At year-end 2016, 2015 and 2014, the District had $78.4, $69.5 and $70.3 million in long and short-term debt, an increase (decrease) of $0.8, $(1.4) and $1 million. During 2016, 2015 and 2014, the District paid principal of $1.1, $.74 and $1.4 million, respectively.

The long-term debt to total asset ratio was 0.46, 0.45, and 0.46 in 2016, 2015 and 2014 respectively.

During 2016, the District issued $10 million in water and sewer revenue bonds to provide financing for several of the District's capital projects.

More detailed information about the District's long-term debt is described in Notes 7 and 8 to the financial statements.

ECONOMIC FACTORS AND NEXT FISCAL YEAR

- Effective July 1, 2016, the District's Board of Commissioners approved a wastewater rate increase of $0.50 per thousand gallons of usage, and an increase in the minimum monthly water charge $5.00 for commercial customers.
- The District plans on issuing approximately $45 to $55 million in water and sewer revenue bonds to provide financing for the construction of the Melton Lake Wastewater Treatment Plant and other capital projects.

CONTACTING THE DISTRICT

This comprehensive annual financial report is designed to provide our customers, creditors and regulatory agencies with a general overview of the District's finances. If you have any questions about this report or need additional information, you may contact the District at:

Drexel Heidel, General Manager
West Knox Utility District
2328 Lovell Road
Knoxville, TN 37932
865-690-2521
www.wkud.com

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND BALANCE SHEETS

As of June 30,		2016		2015
ASSETS AND DEFERRED OUTFLOWS				
CURRENT ASSETS				
Cash and Cash Equivalents	$	4,031,677	$	7,365,027
Cash and Cash Equivalents - Restricted		470,499		363,917
Investments, at Fair Value		15,186,845		12,611,526
Investments - Restricted, at Fair Value		6,786,627		0
Accounts Receivable - (Net of Allowance for Uncollectible Accounts of $130,000 for 2016 and $81,500 for 2015)		2,973,952		2,626,287
Inventory - Materials		45,976		48,750
Prepaid Expenses		48,114		63,127
Total Current Assets		29,543,690		23,078,634
NON-CURRENT ASSETS				
Capital Assets				
Property, Plant and Equipment		201,529,171		190,491,429
Construction in Progress		15,104,618		12,971,291
Less: Accumulated Depreciation		(69,511,182)		(64,290,555)
Capital Assets - Net		147,122,607		139,172,165
Other Assets				
Net Pension Asset - TCRS Pension Plan		452,289		423,307
Debt Service Funds on Deposit with the State of Tennessee		127,652		127,652
Total Other Assets		579,941		550,959
Total Non-Current Assets		147,702,548		139,723,124
TOTAL ASSETS		177,246,238		162,801,758
DEFERRED OUTFLOWS OF RESOURCES				
Pension Plans		1,182,291		835,991
Deferred Bond Refunding Loss		375,325		410,021
TOTAL DEFERRED OUTFLOWS OF RESOURCES		1,557,616		1,246,012
TOTAL ASSETS AND DEFERRED OUTFLOWS	$	178,803,854	$	164,047,770

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND BALANCE SHEETS (Continued)

As of June 30,	2016	2015
LIABILITIES, DEFERRED INFLOWS AND NET POSITION		
CURRENT LIABILITIES		
Accounts Payable	$ 580,683	$ 298,550
Accounts and Retainage Payable - Construction	505,537	713,084
Payroll and Related Liabilities	315,761	280,175
Other Accrued Liabilities	664,499	602,390
Accrued Revenue Bond Interest Payable	229,834	194,221
Revenue Bonds and Note Payable - Current Portion	1,171,266	1,118,731
Total Current Liabilities	3,467,580	3,207,151
NON-CURRENT LIABILITIES		
Revenue Bonds and Note Payable - Net of Current Portion	77,270,557	68,414,954
Net Pension Liability - Defined Benefit Plan	4,838,014	6,055,217
Accrued Interest - Note Payable to Knox County	127,316	123,088
Total Non-Current Liabilities	82,235,887	74,593,259
TOTAL LIABILITIES	85,703,467	77,800,410
DEFERRED INFLOWS OF RESOURCES		
Derivative Instrument - Interest Rate Swap	4,302,381	3,396,726
Pension Plans	1,509,416	211,928
TOTAL DEFERRED INFLOWS OF RESOURCES	5,811,797	3,608,654
NET POSITION		
Net Investment in Capital Assets	75,637,610	69,589,656
Restricted:		
Debt Service	67,346	42,549
Unrestricted	11,583,634	13,006,501
TOTAL NET POSITION	87,288,590	82,638,706
TOTAL LIABILITIES, DEFERRED INFLOWS AND NET POSITION	$ 178,803,854	$ 164,047,770

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the Years Ended June 30,	2016	2015
OPERATING REVENUES		
Water, Net	$ 9,089,180	$ 8,611,641
Wastewater	12,123,653	10,875,487
Connection Fees	945,437	893,658
Customer Forfeited Discounts	297,708	285,589
Service Fees	129,075	120,201
Wastewater Inspection Fees	14,225	13,600
Miscellaneous	282,617	199,593
Total Operating Revenues	22,881,895	20,999,769
OPERATING EXPENSES		
Water Purification and Supply	1,164,483	1,103,041
Wastewater Collection and Treatment	3,036,124	2,438,755
Water Treatment and Distribution	2,879,875	2,894,879
Wastewater Capacity Management Operations Maintenance (CMOM)	1,560,603	1,545,363
Shop and General Maintenance	389,611	333,439
Customer Accounting	131,648	121,724
Administrative and General	2,102,988	2,089,427
Depreciation - Water System	2,590,046	2,543,567
Depreciation - Wastewater System	2,487,613	2,411,126
Depreciation - Other	297,434	315,173
Total Operating Expenses	16,640,425	15,796,494
OPERATING INCOME	6,241,470	5,203,275

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION (Continued)

For the Years Ended June 30,	2016	2015
NON-OPERATING REVENUES (EXPENSES)		
Investment Income, Net	187,435	55,893
Interest Expense	(2,642,317)	(2,067,955)
Change in Fair Value of Derivative Instrument - Interest Rate Swap	(905,655)	(3,396,726)
Debt Issuance Expense	(245,259)	0
Gain on Sales of Capital Assets	26,286	0
Total Non-Operating Revenues (Expenses), Net	(3,579,510)	(5,408,788)
INCREASE (DECREASE) IN NET POSITION BEFORE CAPITAL CONTRIBUTIONS	2,661,960	(205,513)
CAPITAL CONTRIBUTIONS		
Cash Contributions	203,654	43,350
Developers Contributions of Capital Assets	1,784,270	1,074,426
Total Capital Contributions	1,987,924	1,117,776
CHANGE IN NET POSITION	4,649,884	912,263
NET POSITION, BEGINNING OF YEAR	82,638,706	81,726,443
NET POSITION, END OF YEAR	$ 87,288,590	$ 82,638,706

The accompanying notes are an integral part of these financial statements.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND STATEMENTS OF CASH FLOWS

For the Years Ended June 30,	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from Customers and Users	$ 22,596,342	$ 20,642,068
Payments to Employees	(5,516,949)	(4,742,787)
Payments to Suppliers	(5,707,877)	(5,922,478)
Net Cash Provided by (Used in) Operating Activities	11,371,516	9,976,803
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Cash Capital Contributed by Customers	203,654	43,350
Acquisition and Construction of Capital Assets	(11,706,162)	(9,860,273)
Proceeds from Sale of Capital Assets	26,286	0
Interest Paid on Long - Term Debt	(2,605,607)	(2,424,735)
Principal Paid on Long - Term Debt	(1,118,734)	(744,485)
Proceeds from Bond Issue	9,776,790	0
Net Cash Provided by (Used in) Capital and Related Financing Activities	(5,423,773)	(12,986,143)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest Received on Investments	119,667	49,709
Purchases of Investments	(12,926,520)	(9,546,376)
Proceeds from Sales and Maturities of Investments	3,632,342	3,502,665
Net Cash Provided by (Used in) Investing Activities	(9,174,511)	(5,994,002)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(3,226,768)	(9,003,342)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	7,728,944	16,732,286
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 4,502,176	$ 7,728,944
Cash and Cash Equivalents at End of Year Consist of:		
Unrestricted Cash and Cash Equivalents	$ 4,031,677	$ 7,365,027
Restricted Cash and Cash Equivalents	470,499	363,917
Total	$ 4,502,176	$ 7,728,944

The accompanying notes are an integral part of these financial statements.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PROPRIETARY FUND STATEMENTS OF CASH FLOWS (Continued)

For the Years Ended June 30,	2016	2015
RECONCILIATION OF OPERATING INCOME TO		
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES		
Operating Income	$ 6,241,470	$ 5,203,275
Adjustments to Reconcile Operating Income		
to Net Cash Provided by (Used in) Operating Activities:		
Depreciation	5,375,093	5,269,866
Bad Debt Expense	163,140	96,844
Changes in:		
Accounts Receivable	(510,805)	(385,529)
Other Current Assets	17,787	(3,504)
Accounts Payable	282,133	(24,684)
Payroll and Related Liabilities	35,586	31,898
Other Accrued Liabilities	62,109	27,833
Net Pension Asset and Liability	(1,246,185)	384,867
Deferred Outflows and Inflows for Pension Plans	951,188	(624,063)
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	$ 11,371,516	$ 9,976,803
Noncash Investing, Capital and Financing Activities:		
Gain (Loss) on Investments	$ 67,768	$ 6,184
Gain (Loss) on Sales of Capital Assets	$ 26,286	$ 0
Net Amortization of Bond Premiums and Discounts	$ 4,823	$ 5,281
Amortization of Deferred Cost of Defeased Bonds	$ 34,696	$ 35,565
Change in Fair Value of Derivative Instrument - Interest Rate Swap	$ 905,655	$ 3,396,726
Developers Contributions of Capital Assets	$ 1,784,270	$ 1,074,426
Debt Issuance Costs	$ 245,259	$ 0

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

STATEMENTS OF FIDUCIARY NET POSITION - PENSION TRUST FUND

As of June 30,	2016	2015
ASSETS		
Investments		
Mutual Funds:		
Money Market - Short Term	$ 177,118	$ 66,676
Domestic Equity	2,070,570	1,913,078
International Equity	1,058,150	1,028,050
Fixed Income	2,657,237	2,495,808
Real Estate	406,312	338,652
Market Neutral & Alternative	1,088,916	1,043,056
Total Investments	7,458,303	6,885,320
TOTAL ASSETS	$ 7,458,303	$ 6,885,320
LIABILITIES AND NET POSITION		
LIABILITIES		
Accounts Payable	$ 0	$ 0
NET POSITION		
Restricted for Pension Benefits	7,458,303	6,885,320
TOTAL LIABILITIES AND NET POSITION	$ 7,458,303	$ 6,885,320

The accompanying notes are an integral part of these financial statements.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION - PENSION TRUST FUND

For the Years Ended June 30,	2016	2015
ADDITIONS		
Employer Contributions	$ 990,000	$ 1,002,000
Net Investment Earnings (Losses)	(70,346)	121,395
Total Additions	919,654	1,123,395
DEDUCTIONS		
Benefit Payments:		
Annuity Payments	(169,939)	(135,230)
Lump Sum Payments	(174,409)	(57,994)
Administrative Expenses	(2,323)	(1,613)
Total Deductions	(346,671)	(194,837)
CHANGE IN NET POSITION	572,983	928,558
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS, BEGINNING OF YEAR	6,885,320	5,956,762
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS, END OF YEAR	$ 7,458,303	$ 6,885,320

The accompanying notes are an integral part of these financial statements.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

NOTES TO THE FINANCIAL STATEMENTS

June 30, 2016 and 2015

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The West Knox Utility District of Knox County (WKUD or the District) was created under the authority of Title 7, Chapter 82 of the 1937 Utility District Law of the State of Tennessee.

The WKUD Board of Commissioners are appointed by the Knox County Mayor for a term of four years. Knox County does not have any fiscal or budgetary control over WKUD. The operations of WKUD (the District) are funded by water and wastewater rates established by the Board of Commissioners.

Basis of Accounting and Presentation - The District's financial statements are presented on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB).

All operating activities (other than fiduciary fund activities related to the defined benefit pension plan) of the District are accounted for within a single proprietary (enterprise) fund. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis are financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

The District makes a distinction between operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services in connection with its principal ongoing operations. The principal operating revenues of the District are water and wastewater charges to customers. Operating expenses consist of salaries, benefits, utilities, operating contracts for maintenance, insurance, and depreciation on capital assets. All revenues and expenses not meeting these definitions are reported as non-operating revenues and expenses.

The accounting and financial reporting treatment applied to the District is determined by its measurement focus. The transactions of the District are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the balance sheet. Net position (i.e., total assets plus deferred outflows, net of total liabilities plus deferred inflows) are segregated into net investment in capital assets; restricted for capital assets activity and debt service; and unrestricted components.

The fiduciary fund type – pension trust fund is used to account for resources held in trust for the benefit of the participants in the District’s defined benefit pension plan. These resources are not included in the District’s proprietary fund financial statements because they are not available to support the operations of the District. The accounting used for the fiduciary fund – pension trust fund is essentially the same as that used for the proprietary fund, using the same measurement focus and basis of accounting. The WKUD Board of Commissioners provides fiduciary responsibility for the administration and investment of the defined benefit plan reported as the pension trust fund.

Budgeting - The District adopts flexible annual operating and capital budgets. Budgets are adopted on a basis consistent with generally accepted accounting principles. The current operating budget details the District's plans to earn and expend funds for charges incurred for operation, maintenance, certain interest and general functions, and other charges for the fiscal year. The capital budget details the plan to receive and expend cash basis capital contributions, grants, borrowings and certain revenues for capital projects. The District’s budgets are not legally binding. During the year, management is authorized to transfer budgeted amounts between line items within the District's departments.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Cash Equivalents, Deposits and Investments - Cash and cash equivalents, for purposes of the statement of cash flows, include restricted and unrestricted cash on hand or on deposit, certificates of deposit, and debt security investments with a maturity at purchase of three months or less.

Investments are reported at their estimated fair value (see Note 3). Realized gains and (losses) from the sale of investments are calculated separately from the change in the fair value. Realized gains or (losses) in the current period include unrealized amounts from prior periods. Purchases and sales of securities are recorded on the trade-date basis. Interest income is recorded on the accrual basis.

Investments - Fiduciary Fund - The pension trust fund's investments are stated at their estimated fair value (see Note 3). Investment income includes realized gains (losses) from the sale of investments, unrealized gains (losses) in the change in market values, and interest and dividend income earned during the year. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date.

Restricted Assets - Restricted assets represent cash and investments maintained in accordance with bond resolutions, loan agreements, grant awards, and other resolutions and formal actions of the District or by agreement for the purpose of funding certain debt service payments, depreciation and contingency activities, and improvements and extensions to the system. Restricted assets are generally not available for current operating expenses (see Note 9).

When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first, then unrestricted resources as they are needed.

Receivables, Revenues and Unbilled Revenues - Revenues are billed monthly to customers on a cyclical meter reading basis. Recognition has been given to unbilled revenue in the financial statements.

Accounts receivable are stated at the amount management expects to collect from outstanding balances. The District provides for estimated uncollectible receivables through a reduction of gross water revenues and a credit to an allowance based on its assessment of the current status of individual accounts and historical write-off experience. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the valuation allowance and a credit to accounts receivable.

Operating revenues consist of water and wastewater revenues net of allowance for uncollectibles, and forfeited discounts, inspection fees and various service fees. Connection (tap) fees are recorded as revenue to the extent of expenses incurred in connecting a customer to the system. Connection fees in excess of costs, if any, are recorded as cash capital contributions.

Non-operating revenue consists of investment income. Investment income is interest earned, the accretion of interest on zero coupon debt instruments and the change in the fair value of investment securities.

Expenses - Operating expenses consist of the cost of water and wastewater collection, treatment, storage and distribution. Other operating expenses include customer billing, collections, administrative and general and depreciation of capital assets.

Non-operating expenses consist of interest on long-term liabilities and loss on the disposal or impairment of capital assets.

Inventories - Material and supply inventories are stated at cost using the first-in, first-out method. Incidental supplies and chemicals are not included in inventory.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Capital Assets - Property, plant and equipment in service and construction in progress are recorded at cost if purchased or constructed. Assets acquired through contributions from developers or other customers are capitalized at their estimated fair market value, if available, or at engineers' estimated fair market value or cost to construct at the date of the contribution. Utility systems acquired from other governmental service providers are recorded at the purchase price, limited to fair market value.

Maintenance and repairs, which do not significantly extend the value or life of property, plant or equipment, are expensed as incurred. The District defines capital assets as an asset with an initial individual cost, or a project with a cumulative cost, of more than $5,000 and an estimated useful life in excess of one year.

Interest is not capitalized on project costs funded by contributed capital, such as grants, gifts and impact fees. Interest costs of tax-exempt borrowings are capitalized net of related investment earnings on the proceeds. Depreciation is not recorded until the assets are actually put into use.

Assets are depreciated on the straight-line method. Depreciation is calculated using the following estimated useful lives:

	Years
Source of Supply Equipment	15-50
Water Treatment Plant	40-50
Wastewater Treatment Plant	40
Transmission and Distribution Systems	40-50
Equipment	5-20
Structures and Improvements	10-50
Office Furniture, Equipment and Vehicles	5-20

Long-Term Obligations and Costs - Long-term obligations are reported at face value, net of applicable premiums and discounts. Premiums and discounts, and gains or losses on advance refundings and defeasances are deferred and amortized over the life of the related bonds.

Compensation for Future Absences - Accumulated vacation eligible to be paid to employees at termination is recorded as an expense and liability as the benefits are earned.

Pension Plans - For purposes of measuring the District's net pension liability, pension expense, deferred outflow of resources and deferred inflows of resources related to the single-employer pension plan, management determines these amounts using the same basis as they are reported in the pension trust fund financial statements. Benefit payments are recognized by the Plan when due and payable in accordance with the benefit terms and the Plan reports its investments at estimated fair value. The Plan's financial statements are presented in the accompanying financial statements as a pension trust fund.

For purposes of measuring the net pension asset, deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the District's participation in the Public Employee Retirement Plan of the Tennessee Consolidated Retirement System (TCRS), and additions to/deductions from the District's fiduciary net position have been determined on the same basis as they are reported by the TCRS for the Public Employee Retirement Plan. For this purpose, benefits (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms of the Public Employee Retirement Plan of TCRS. Investments are reported at fair value.

Contributions - Contributions are recognized in the statement of revenues, expenses, and changes in net position when earned. Contributions include developer contributed utility systems, capacity and other supplemental support by other utilities and industrial customers and federal, state and local grants in support of system improvements.

Presentation of Certain Taxes - The District collects various taxes from customers and remits these amounts to applicable taxing authorities. The District's accounting policy is to exclude these taxes from revenues and cost of operations.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Deferred Outflows/Inflows of Resources - In addition to assets, the balance sheet reports a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. In addition to liabilities, the balance sheet reports a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until then.

Net Position - Proprietary Fund - Net position comprises the various net earnings from operating and non-operating revenues, expenses, and contributions of capital. Net position is classified in the following three components: net investment in capital assets; restricted for capital assets activity and debt service; and unrestricted net position. Net investment in capital assets consists of all capital assets, net of accumulated depreciation and deferred outflows of resources and deferred inflows of resources and is reduced by outstanding debt that is attributable to the acquisition, construction, and improvement of those assets; debt or deferred inflow of resources attributable to unspent proceeds or other restricted cash and investments are excluded from the determination. Restricted for capital assets activity and debt service consists of net positions for which constraints are placed thereon by external parties, such as lenders, grantors, contributors, laws, regulations, and enabling legislation, including self-imposed legal mandates. The unrestricted component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

Net Position - Pension Trust Fund - Net fiduciary position consists of results from net investment income (loss), employer contributions, benefits paid, and administrative expenses of the District's defined benefit pension plan (pension trust fund). Fiduciary net position is classified as follows: restricted for pension benefits.

Net Position Flow Assumption - Sometimes the District will fund outlays for a particular purpose from both restricted (e.g., restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to report as restricted - net position and unrestricted - net position in the financial statements, a flow assumption must be made about the order in which the resources are considered to be applied. When both restricted and unrestricted resources are available for use, it is the District's policy to consider restricted - net position to have been depleted before unrestricted - net position is applied.

Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet date, and reported amounts of revenues and expenses during the reporting period. Estimates are used to determine depreciation expense, the allowance for doubtful accounts and certain claims and judgment liabilities, among other amounts. Actual results may differ from those estimates.

Recently Issued Accounting Pronouncements

GASB Statement No. 72 - During the fiscal year ended June 30, 2016, the District implemented GASB Statements No. 72, *Fair Value Measurement and Application.* Statement No. 72 is intended to provide guidance for determining fair value measurement for financial reporting purposes and for applying fair value to certain investments and disclosures related to all fair value measurements. The requirements of this new standards and their effect on the financial statements are more fully explained in Note 3.

GASB Statements No. 74 and 75 - During fiscal year 2015, the GASB issued two related Statements that affect accounting and financial reporting by state and local governments for postemployment benefits other than pensions (OPEB). GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans,* addresses reporting by OPEB Plans that administer benefits on behalf of governments. GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions,* addresses reporting by governments that provide OPEB to their employees. Statement No. 74 is effective for fiscal years beginning after June 15, 2016 (FY 2017), and Statement No. 75 is effective for fiscal years beginning after June 15, 2017 (FY 2018). As of June 30, 2016, the District does not provide any OPEB to its retirees.

NOTE 2 - DEPOSITS AND INVESTMENTS

At June 30, 2016 and 2015, the District had the following deposits and investments:

	Proprietary Fund				Fiduciary Fund			
	2016		2015		2016		2015	
	Fair Value	Weighted Average Maturity (Years)	Fair Value	Weighted Average Maturity (Years)	Fair Value	Weighted Average Maturity (Years)	Fair Value	Weighted Average Maturity (Years)
Deposits:								
Demand Deposits	$ 4,502,176	N/A	$ 7,728,944	N/A	$ 0	N/A	$ 0	N/A
Investments:								
Federal Agency Debt Securities	6,807,348	1.5	0	0.0	0	N/A	0	N/A
U.S. Treasuries	5,507,590	1.2	4,800,664	1.9	0	N/A	0	N/A
Cash & Cash Equivalents	135,724	N/A	0		0	N/A	0	N/A
Certificates of Deposit	9,522,810	1.7	7,810,862	1.2	0	N/A	0	N/A
Mutual Funds	0	N/A	0	N/A	7,458,303	N/A	6,885,320	N/A
Total Investments	21,973,472		12,611,526		7,458,303		6,885,320	
Total	$ 26,475,648		$ 20,340,470		$ 7,458,303		$ 6,885,320	

A summary of the deposits and investments on the proprietary fund balance sheets at June 30, 2016 and 2015 is as follows:

	2016	2015
Current Assets:		
Cash and Cash Equivalents	$ 4,031,677	$ 7,365,027
Cash and Cash Equivalents - Restricted	470,499	363,917
Investments	15,186,845	12,611,526
Investments - Restricted	6,786,627	0
	$ 26,475,648	$ 20,340,470

As of June 30, 2016 and 2015, the District's investments were in the following:

	Proprietary Fund		Fiduciary Fund	
	2016	2015	2016	2015
Certificates of Deposits	43.3%	61.9%	0.0%	0.0%
Cash & Cash Equivalents	0.6%	0.0%	0.0%	0.0%
Federal Agency Securities	31.0%	0.0%	0.0%	0.0%
U.S. Treasuries	25.1%	38.1%	0.0%	0.0%
Mutual Funds	0.0%	0.0%	100.0%	100.0%
Total	100.0%	100.0%	100.0%	100.0%

Deposits - Custodial Credit Risk

The District's deposits, with a carrying amount of $4,502,176 and $7,728,944 at June 30, 2016 and 2015, respectively, were covered by the bank collateral pool administered by the Treasurer of the State of Tennessee. The bank may use one of three different pledged security levels (90%, 100% or 105%) depending on the specific bank holding the deposit. Participating banks determine the aggregate balance of their public fund accounts for the District. Collateral securities required to be pledged by the participating banks to protect their public fund accounts are pledged to the State Treasurer on behalf of the bank collateral pool. The securities pledged to protect these accounts are pledged in the aggregate rather than against each individual account. The members of the pool may be required by agreement to pay an assessment to cover any deficiency. Under this additional assessment agreement, public fund accounts covered by the pool are considered to be insured and classified as Category 1, under GASB Statement No. 40, for purposes of custodial credit risk disclosure.

NOTE 2 - DEPOSITS AND INVESTMENTS (Continued)

Investments, at Fair Value

The District's proprietary fund investments at June 30, 2016 and 2015, with a carrying amount of $21,973,472 and $12,611,526, respectively, are in U.S. government and federal agency debt securities, municipal bonds, and certificates of deposit which are registered in the District's name. As required by GASB Statement No. 31, the carrying value of investments is presented at fair value.

Investment Income, Net

Investment income, net for the proprietary fund for 2016 and 2015 consisted of the following:

	2016	2015
Interest Income	$ 119,667	$ 49,709
Gains (Losses) - Net	67,768	6,184
Net Total	$ 187,435	$ 55,893

Investment Policies - Proprietary Fund

State statute (T.C.A. § 7-82-108) authorizes the District to invest in obligations of the federal government, federal agency securities, State of Tennessee, state local government investment pool (SLGIP), municipal bonds issued in Tennessee, money market funds, certificates of deposit and other time deposits and repurchase agreements. The District may also invest in collateralized certificates of deposit, money market funds or repurchase agreements by banks pledging specific debt securities or those which participate in the state collateral pool.

Custodial Credit Risk: The District's investment policy requires that investment securities be registered in the name of West Knox Utility District.

Credit Risk: The District's investment policy and state law limits investments in non-federal obligations to issuers that are rated in the two highest rating categories by a nationally recognized rating agency of such obligations. Ratings were obtained from either Moody's or Standard & Poor's.

At June 30, 2016 and 2015, the District's investments in marketable debt securities were rated as follows:

	2016		2015	
	Fair Value	Moody's	Fair Value	Moody's
Federal Agency Debt Securities	$ 6,807,348	Aaa	$ 0	N/A
U.S. Treasuries	5,507,590	Aaa	4,800,664	Aaa
Total	$ 12,314,938		$ 4,800,664	

Interest Rate Risk: The District's Investment Policy limits its holdings to obligations having a final maturity on the date of investment of not to exceed forty-eight (48) months, or which may be tendered by the holder to the issuer thereof, or an agent of the issuer, at not less than forty-eight (48) month intervals. Investments are made based upon prevailing market conditions with the intent to hold the instrument until maturity. If the performance of the portfolio can be improved upon by the sale of an investment prior to maturity, the policy allows for the implementation of this strategy.

Investment Policies - Fiduciary Fund

See Note 10-A for information concerning the investment policies for the Pension Trust Fund.

NOTE 3 - FAIR VALUE OF INVESTMENTS

GAAP establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the input to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets (Level 1 measurements) and the lowest to unobservable inputs (Level 3 measurements). The three levels of fair value hierarchy are described below:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The District and its Pension Trust Fund has the following recurring fair value measurements as of June 30, 2016:

Federal Agency Debt Securities and U.S. Treasuries - Actively traded individual debt securities are valued at the quoted market prices for identical assets in active markets. For non-actively traded individual debt securities are valued using pricing models that maximize the use of observable inputs for similar securities which includes the yield currently available on comparable securities of issuers with similar maturities and credit ratings.

Mutual Funds - Valued at the daily closing price as reported by the fund. Mutual funds held by the District's Pension Trust Fund are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission (SEC). These funds are required to publish their daily net asset value (NAV) and to transact at that price. The mutual funds held by the Pension Trust Fund are deemed to be actively traded.

Derivative Liabilities - Interest Rate Swap - Valued based on the interest rate swap agreement's valuation models and assumptions and available market data, some of which may be internally developed.

NOTE 3 - FAIR VALUE OF INVESTMENTS (Continued)

The following table summarizes the assets and liabilities of the Proprietary and Pension Trust Funds for which fair values are determined on a recurring basis as of June 30, 2016 and 2015:

	Fair Value Measurements Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
June 30, 2016:				
Investments				
Proprietary Fund				
Federal Agency Debt Securities	$ 0	$ 6,807,348	$ 0	$ 6,807,348
U.S. Treasuries	5,507,590	0	0	5,507,590
Total Proprietary Fund	5,507,590	6,807,348	0	12,314,938
Pension Trust Fund				
Mutual Funds	7,458,303	0	0	7,458,303
Total Investments, at Fair Value	$ 12,965,893	$ 6,807,348	$ 0	$ 19,773,241
Derivative Liability				
Proprietary Fund				
Derivative Liability - Interest Rate Swap	$ 0	$ 4,302,381	$ 0	$ 4,302,381
June 30, 2015:				
Investments				
Proprietary Fund				
Federal Agency Debt Securities	$ 0	$ 0	$ 0	$ 0
U.S. Treasuries	4,800,664	0	0	4,800,664
Total Proprietary Fund	4,800,664	0	0	4,800,664
Pension Trust Fund				
Mutual Funds	6,885,320	0	0	6,885,320
Total Investments, at Fair Value	$ 11,685,984	$ 0	$ 0	$ 11,685,984
Derivative Liability				
Proprietary Fund				
Derivative Liability - Interest Rate Swap	$ 0	$ 3,396,726	$ 0	$ 3,396,726

For the fiscal years 2016 and 2015, there were no significant transfers in or out of Levels 1, 2, or 3. There have been no changes in the methodologies used for fiscal years 2016 and 2015.

NOTE 4 - CAPITAL ASSETS

A summary of capital asset activity and changes in accumulated depreciation for the year ended June 30, 2016 is as follows:

	Balance 07/01/15	Additions Transfers	Deletions Retirements Transfers	Balance 06/30/16
Capital Assets Not Being Depreciated				
Water System:				
Land and Easements	$ 322,678	$ 2,665	$ 0	$ 325,343
Construction in Progress	2,012,346	3,147,387	(2,662,016)	2,497,717
Wastewater System:				
Land and Easements	464,672	0	0	464,672
Construction in Progress	10,958,945	7,079,330	(5,431,374)	12,606,901
Office Property and Equipment - Land	244,189	0	0	244,189
Total Capital Assets Not Being Depreciated	14,002,830	10,229,382	(8,093,390)	16,138,822
Capital Assets Being Depreciated				
Water System:				
Mains, Lines and Equipment	55,874,639	507,824	2,778,616	59,161,079
Treatment Facilities	37,957,063	504,116	0	38,461,179
Wastewater System:				
Collection Lines and Equipment	67,467,828	886,287	5,314,774	73,668,889
Treatment Facilities	22,754,578	551,501	0	23,306,079
Office Property and Equipment	5,405,782	646,425	(154,466)	5,897,741
Total Capital Assets Being Depreciated	189,459,890	3,096,153	7,938,924	200,494,967
Less Accumulated Depreciation				
Water System:				
Mains, Lines and Equipment	(19,034,580)	(1,633,431)	0	(20,668,011)
Treatment Facilities	(8,182,631)	(956,614)	0	(9,139,245)
Wastewater System:				
Collection Lines and Equipment	(20,438,108)	(1,663,376)	0	(22,101,484)
Treatment Facilities	(13,212,245)	(824,237)	0	(14,036,482)
Office Property and Equipment	(3,422,991)	(297,435)	154,466	(3,565,960)
Total Accumulated Depreciation	(64,290,555)	(5,375,093)	154,466	(69,511,182)
Total Capital Assets Being Depreciated, Net	125,169,335	(2,278,940)	8,093,390	130,983,785
Total Capital Assets	$ 139,172,165	$ 7,950,442	$ 0	$ 147,122,607

Depreciation expense was $5,375,093 for 2016.

NOTE 4 - CAPITAL ASSETS (Continued)

A summary of capital asset activity and changes in accumulated depreciation for the year ended June 30, 2015 is as follows:

	Balance 07/01/14	Additions Transfers	Deletions Retirements Transfers	Balance 06/30/15
Capital Assets Not Being Depreciated				
Water System:				
Land and Easements	$ 215,580	$ 107,098	$ 0	$ 322,678
Construction in Progress	3,525,607	1,585,318	(3,098,579)	2,012,346
Wastewater System:				
Land and Easements	464,672	0	0	464,672
Construction in Progress	8,598,266	6,141,953	(3,781,274)	10,958,945
Office Property and Equipment - Land	244,189	0	0	244,189
Total Capital Assets Not Being Depreciated	13,048,314	7,834,369	(6,879,853)	14,002,830
Capital Assets Being Depreciated				
Water System:				
Mains, Lines and Equipment	55,424,895	449,743	0	55,874,639
Treatment Facilities	34,900,660	3,056,403	0	37,957,063
Wastewater System:				
Collection Lines and Equipment	62,590,575	4,877,253	0	67,467,828
Treatment Facilities	22,506,108	248,470	0	22,754,578
Office Property and Equipment	5,016,356	424,910	(35,484)	5,405,782
Total Capital Assets Being Depreciated	180,438,594	9,056,779	(35,484)	189,459,890
Less Accumulated Depreciation				
Water System:				
Mains, Lines and Equipment	(17,426,501)	(1,608,078)	0	(19,034,579)
Treatment Facilities	(7,247,143)	(935,488)	0	(8,182,631)
Wastewater System:				
Collection Lines and Equipment	(18,871,982)	(1,566,126)	0	(20,438,108)
Treatment Facilities	(12,367,246)	(844,999)	0	(13,212,245)
Office Property and Equipment	(3,143,303)	(315,172)	35,484	(3,422,991)
Total Accumulated Depreciation	(59,056,175)	(5,269,863)	35,484	(64,290,555)
Total Capital Assets Being Depreciated, Net	121,382,419	3,786,916	0	125,169,335
Total Capital Assets	$ 134,430,733	$ 11,621,285	$ (6,879,853)	$ 139,172,165

Depreciation expense was $5,269,866 for 2015.

NOTE 5 - CONSTRUCTION IN PROGRESS

Construction in progress including the remaining contractual commitments at June 30, 2016 and 2015 consists of:

	2016		2015	
Project	Actual To Date	Remaining Commitment	Actual To Date	Remaining Commitment
Hydraulic Analysis - Flow Monitoring	$ 0	$ 0	$ 252,331	$ 199,604
Ball Camp Road Water Line Relocation - Engineering	194,750	0	194,750	0
Ten Mile WWPS Basin Study - Engineering	725,711	0	581,058	0
Sky Blue Drive Water Line Replacement	39,824	689,600	0	0
Basin 9 Rehab Harrell Road	3,033,303	163,325	493,386	2,606,614
Park West Blvd Water Line Replacement	1,507,444	258,796	65,383	0
Sub-Basin 1-6 Rehab Phase III	0	0	1,092,787	2,710,669
Melton Lake WWTP	6,978,879	41,255,000	6,302,338	0
Greystone Vista Slope Stabilization	0	0	18,025	381,975
Karns Pump Station Modification	204,732	0	196,650	154,350
Highgate Sewer Line Repair	1,005,544	0	600,157	37,273
Hardin Valley Outfall Line	89,725	0	56,438	220,562
Hardin Valley Force Main	741,376	0	319,613	230,387
George Lovelace Lane Water Line Replacement	0	0	18,173	744,752
Meadow Creek Gravity Sewer Line	0	0	1,153,610	0
Diggs Road Water Line Replacement	0	0	1,218,053	0
Cross Park Water & Sewer Rel	0	0	89,585	189,283
Bob Gray Roundabouts	0	0	268,066	0
Other Small Projects	583,330	49,803	50,888	78,770
Total	$ 15,104,618	$ 42,416,524	$ 12,971,291	$ 7,554,239

During fiscal year 2017 the District plans on issuing approximately $45M to $50M in water and sewer revenue bonds to provide financing for the Melton Lake Wastewater Treatment Plant and other capital projects.

NOTE 6 - DEBT SERVICE FUNDS ON DEPOSIT WITH THE STATE OF TENNESSEE

During fiscal year 2010, the District obtained a loan from the State of Tennessee Clean Water – State Revolving Loan Note Payable of $2,194,858 to be repaid in annual principal and interest payments of $127,652 over 20 years. As required by this program, the District was required to deposit one year’s worth of debt service payments, or $127,652 with the State of Tennessee Comptroller of the Treasury – Office of State and Local Finance, the loan administrator. The funds are being held by the Tennessee Local Government Investment Pool (LGIP) in a pooled account established by the Tennessee Local Development Authority (TLDA). The District will be credited with a pro-rata share of investment earnings.

NOTE 7 - REVENUE BONDS AND NOTES PAYABLE

Overview

Bonds and notes payable at June 30, 2016 and 2015, consisted of the following:

	2016	2015
Water and Sewer System Revenue Bonds $9,995,000 Dated December 22, 2015, Series 2015	$ 9,995,000	$ 0
Water and Sewer System Revenue Bonds Build America Bonds (BABS) $35,000,000 Dated November 30, 2010, Series 2010	35,000,000	35,000,000
Public Building Authority of Sevier County, Tennessee Loan Agreement $35,425,000 dated August 1, 2009, Series 2009 V-B-1	29,385,000	30,380,000
Rural Development Water and Sewer Revenue Bonds, $1,340,000 Series 2004	1,121,232	1,144,158
Note Payable - Knox County, Tennessee	1,350,000	1,350,000
Note Payable - State Revolving Funds	1,689,906	1,790,714
Total Bonds and Notes Payable	78,541,138	69,664,872
Add: Unamortized Premium	26,591	0
Less: Unamortized Discount	(125,906)	(131,187)
	78,441,823	69,533,685
Less: Current Portion	(1,171,266)	(1,118,731)
Total Long-Term Bonds and Notes	$ 77,270,557	$ 68,414,954

The District has pledged all of its revenues to secure the revenue bonds and notes payable until all outstanding debt has been repaid. In addition, the bond and note holders have statutory mortgage liens upon the District as created by T.C.A. § 7-82-101, and will remain in effect until the various bond issues are paid in full. There are revenue bond and note covenants that require a minimum debt service coverage ratio of 1.20, and for the years ended June 30, 2016 and 2015 the ratio was 3.36 and 4.01, respectively.

Interest expense for 2016 and 2015 consisted of the following:

	2016	2015
Interest Paid	$ 2,604,401	$ 2,423,529
Change in Accrued Interest Payable	39,841	2,960
Less Construction Period Interest Capitalized	(42,650)	(400,586)
Amortization of Bond Discounts	5,281	5,281
Amortization of Bond Premiums	(458)	0
Paying Agent's Fees and Service Charges	1,206	1,206
Amortization of Deferred Cost of Refunding	34,696	35,565
Total	$ 2,642,317	$ 2,067,955

NOTE 7 - REVENUE BONDS AND NOTES PAYABLE (Continued)

Activity

Long-term debt activity during 2016 and 2015 was as follows:

	2016				
	Balance July 01, 2015	Additions	Reductions	Balance June 30, 2016	Due Within One Year
Revenue Bonds	$ 66,524,158	$ 9,995,000	$ 1,017,926	$ 75,501,232	$ 1,068,942
Notes Payable	3,140,714	0	100,808	3,039,906	102,324
	69,664,872	9,995,000	1,118,734	78,541,138	1,171,266
Other Items:					
Add: Bond Premiums	0	27,049	458	26,591	0
Less: Bond Discounts	(131,187)	0	(5,281)	(125,906)	0
Total	$ 69,533,685	$ 10,022,049	$ 1,113,911	$ 78,441,823	$ 1,171,266

	2015				
	Balance July 01, 2014	Additions	Reductions	Balance June 30, 2015	Due Within One Year
Revenue Bonds	$ 67,161,010	$ 0	$ 636,852	$ 66,524,158	$ 1,017,919
Notes Payable	3,248,347	0	107,633	3,140,714	100,812
	70,409,357	0	744,485	69,664,872	1,118,731
Other Items:					
Less: Bond Discounts	(136,468)	0	(5,281)	(131,187)	0
Total	$ 70,272,889	$ 0	$ 739,204	$ 69,533,685	$ 1,118,731

Debt Service

A summary of the debt service requirements for principal and interest at June 30, 2016, is as follows:

Fiscal Years Ending June 30,	Principal	Coupon Interest	BABS Treasury Rebate	Net Interest	Total
2017	$ 1,171,266	$ 4,019,816	$ (754,434)	$ 3,265,382	$ 4,436,648
2018	1,223,883	3,972,972	(754,434)	3,218,538	4,442,421
2019	2,631,572	4,063,948	(754,434)	3,309,514	5,941,086
2020	254,334	3,868,387	(754,434)	3,113,953	3,368,287
2021	1,722,160	3,863,706	(754,434)	3,109,272	4,831,432
2022-2026	9,651,206	18,131,806	(3,719,920)	14,411,886	24,063,092
2027-2031	11,771,754	16,106,519	(3,617,341)	12,489,178	24,260,932
2032-2036	14,491,990	13,377,944	(3,491,362)	9,886,582	24,378,572
2037-2041	17,963,481	9,059,831	(2,574,241)	6,485,590	24,449,071
2042-2045	17,659,492	2,861,357	(811,975)	2,049,382	19,708,874
Total	$ 78,541,138	$ 79,326,286	$ (17,987,009)	$ 61,339,277	$ 139,880,415

NOTE 7 - REVENUE BONDS AND NOTES PAYABLE (Continued)

Loan Payable to Public Building Authority of Sevier County - Series 2009 V-B-1

The Public Building Authority of Sevier County has issued its Local Government Public Improvement Bonds, Series 2009 V-B-1. The bonds are to provide refunding of Series 1997 I-A-1, 2000 II-D-2, and 2005 IV-C-1 Bonds. Interest payments are made the first of each month. Monthly payments include a reimbursement to the letter of credit provider. One monthly payment each quarter includes additional interest and swap payments and fees, in addition to the LOC reimbursement. The effective interest rate for 2016 was 2.44%. The loan principal payments began June 1, 2010, and annual principal payments due June 1 of each year continue through 2035. The current refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt totaling $634,946. This difference is reported in the accompanying financial statements as a deferred bond refunding loss and is being charged to operations through the year 2035 using the proportionate-to-stated interest requirements method. Although the reacquisition price exceeded the net carrying amount of the old debt, the District reduced its aggregate debt service payments by $1,237,925. No economic gain or loss was obtained since the transaction exchanged old variable rate debt with new variable rate debt. The amount of the reacquisition price recorded as part of the bond interest expense was $35,565 and $35,565 for the years ended June 30, 2016 and 2015, respectively.

Under its loan agreement, the Public Building Authority, at the request of the District, has entered into an interest rate swap agreement for all of the outstanding Local Government Improvement Revenue Bonds, Series II-D-2. Based on the loan agreement and swap agreement, the District owes interest at an effective fixed rate of 4.21% and 3.33% at June 30, 2016 and 2015, respectively (see Note 8).

Revenue Bonds - Build America Bonds (BABS) - Series 2010

The District has issued taxable water and sewer revenue bonds, series 2010 (Federally Taxable – Build America Bonds – Direct Subsidy). The funds are to provide the District financing for certain water and sewer improvement projects under the agreement dated November 30, 2010. Interest payments are made semi-annually at a gross interest rate of 6.83%, or at a net rate of 4.44% after subsidies. The loan principal payments begin June 1, 2021 and continue through June 1, 2045. Beginning in year 2026 there is a mandatory redemption of bonds with various maturity dates. The District receives a direct subsidy of 35% from the United States Government that reduces its interest costs. The District has no assurance that the United States Government will continue to make the direct subsidy payments at a gross interest rate of 6.83% or that the United States Congress will not attempt to reduce the amount of the direct subsidy payments. The bonds rated “AA+” rating by Standard & Poor’s. Interest subsidies received by the District during the years ended June 30, 2016 and 2015 totaled $766,828 and $766,828, respectively.

Water and Sewer Revenue Bonds - Series 2015

The District has issued non-taxable water and sewer revenue bonds, series 2015. The funds are to provide the District financing for certain water and sewer improvement projects under the debt agreement dated December 22, 2015. Interest and principal payments are made semi-annually at an average interest rate of 3.40% beginning June 1, 2016. These bonds were rated “AA+” by Standard & Poor’s. The loan principal payments begin June 1, 2020 and continue through June 1, 2045.

Rural Development Bonds - Series 2004

The Series 2004 Water and Sewer Revenue Bonds dated June 23, 2004 were issued by the U.S. Department of Agriculture - Rural Development in the amount of $1,340,000. The bonds carry an interest rate of 4.375% and are payable in 456 monthly installments (38 years) of $6,044 beginning July 23, 2004 and ending on June 23, 2042.

NOTE 7 - REVENUE BONDS AND NOTES PAYABLE (Continued)

Note Payable - Knox County

Knox County agreed to participate with the District by providing funds to expedite utility relocation necessary for construction of improved roadways within the northwest portion of the County. The District has received a total of $2,000,000 from the County before repayments. The final payment of $1,490,000 is due on August 11, 2018.

The District is obligated to repay the funds including an additional $140,000 to reimburse the County for administrative costs associated with the agreement. The funds are to be reimbursed as follows:

Fiscal Year Ending June 30,	2016
2019	$ 1,350,000

The District has accrued a portion of the $140,000 as interest payable. The amount accrued as of June 30, 2016 and 2015 was $127,316 and $123,088, respectively

Note Payable - State Revolving Fund

The District entered into an agreement with the Tennessee Department of Environment and Conservation's State Revolving Fund Loan Program on September 29, 2009. The agreement was to provide financing for the wastewater collection system expansion along Ball Camp Road and Northampton Commons areas. The total project is estimated at $3,658,096, of which $1,829,048 will be a loan from the State Revolving Fund and $1,829,048 will be provided by the American Recovery and Reinvestment Act of 2009 (ARRA). The funds provided by ARRA consist of $1,463,238 in debt forgiveness and $365,810 as a note payable. The project was completed in FY 2012. The total loan amount was $2,194,858 bearing interest at 1.50% payable in monthly installments of $10,591 to be repaid over 20 years with a final maturity date of May 1, 2031. The amount of the note payable as of June 30, 2016 and 2015 was $1,689,906 and $1,790,714, respectively.

NOTE 8 - INTEREST RATE SWAP

Under its loan agreement, the Public Building Authority of Sevier County, TN (the "Authority"), at the request of the District, has entered into an interest rate swap agreement for all of the outstanding Local Government Improvement Revenue Bonds, Series II-D-2. Interest rate swaps are classified as hedging derivative instruments if the hedging instrument meets the effectiveness criteria established by Governmental Accounting Standards Board Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. The swap met that criteria in fiscal year 2014 and was classified as a cash flow hedge. In 2014, the District recorded a deferred outflow of resources and a deferred inflow of resources for the derivative totaling the negative fair value of $3,137,203. In 2015, the swap did not meet the hedge criteria and therefore was classified as an investment derivative. The District recorded a deferred inflow of resources for the investment derivative totaling the negative fair value of $3,396,726. The District also recorded the previous year's deferred outflow of resources and current year change in fair value as an investment loss totaling $3,396,726.

Objective of the Interest Rate Swap

In order to protect against the potential of rising interest rates and to balance its mixture of variable and fixed rate debt, the District requested the Authority, on its behalf, to enter into an interest rate swap in connection with its $12.5 million Series II-D-2 variable-rate bonds. The intention of the swap was to effectively change the District's variable interest rate on the bonds to a synthetic fixed rate. The Series II-D-2 bonds have since been refunded with a portion of the proceeds of the Series V-B-1 bonds and the interest rate swap is now associated with the Series V-B-1 bonds.

NOTE 8 - INTEREST RATE SWAP (Continued)

Terms

Under the swap, the Authority pays the counterparty a fixed payment of 4.40% and receives a variable payment computed as 63.50% of the Five-Year London Interbank Offered Rate (LIBOR). The swap has a notional amount of $12.5 million and the associated variable-rate bond has a $12.5 million principal amount. At no time will the notional amount on interest rate swap agreement exceed the outstanding principal of the Series V-B-1 Bonds. The bonds' variable rates have historically approximated the Securities Industry and Financial Markets Association Index™ (the "SIFMA"). The bonds and the related swap agreement mature on June 1, 2030. As of June 30, 2016 and 2015, rates were as follows:

	2016	2015
Interest Rate Swap:		
Fixed Payment to Counterparty	4.40 %	4.40 %
Variable Payment from Counterparty	(0.62)	(1.13)
Net Interest Rate Swap Payments	3.78	3.27
Variable-Rate Bond Coupon Payments	0.43	0.06
Synthetic Interest Rate on Bonds	4.21 %	3.33 %

Fair Value

As of June 30, 2016 and 2015, the swap had a negative fair value of $(4,302,381) and $(3,396,726), respectively. The negative fair value of the swap may be countered by reductions in total interest payments required under the variable-rate bond, creating lower synthetic rates. Because the rates on the District's variable-rate bonds adjust to changing interest rates, the bonds do not have a corresponding fair value increase. The fair value model calculates future cash flows by projecting forward rates and then discounts those cash flows at their present value.

Credit Risk

As of June 30, 2016 and 2015, the District was not exposed to credit risk because the swap had a negative fair value. However, should interest rates change and the fair value of the swap become positive, the District would be exposed to credit risk in the amount of the derivative's fair value. The swap counterparty, Morgan Keegan Financial Products ("MKFP"), was rated "A+" by Standard and Poor's as of June 30, 2016 and 2015 with its Credit Support Provider, Deutsche Bank, rated Aa3/A+/AA- by Moody's, Standard & Poor's and Fitch, respectively.

Termination Risk

The derivative contract uses the International Swap Dealers Association Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. The Schedule to the Master Agreement includes an "additional termination provision." The Authority or the counterparty may terminate the swap if the other party fails to perform under the terms of the contract. If the swap is terminated, the variable-rate bond would no longer carry a synthetic interest rate. Also, if at the time of termination the swap has a negative fair value, the Authority would be liable to the counterparty for a payment equal to the swap's fair value. Likewise, if the swap has a positive fair value at termination, the counterparty would be liable to the Authority for a payment equal to the swap's fair value.

Interest Rate Risk

The District is exposed to interest rate risk on the interest rate swap. The bonds' variable rates have historically approximated the Securities Industry and Financial Markets Association Index (SIFMA). As the SIFMA swap index decreases, the District's net payments on the swap increase.

Basis Risk

As noted above, the swap exposes the District to basis risk should SIFMA increase to above 63.5% of LIBOR, thus increasing the synthetic rate on the bonds. If a change occurs that results in the SIFMA to be below 63.5% of LIBOR, then the synthetic rate on the bonds will decrease.

NOTE 8 - INTEREST RATE SWAP (Continued)

Rollover Risk

The District is not exposed to rollover risk because the maturity dates for the hedged variable rate bonds and the interest rate swap agreement are the same.

Swap Payments and Associated Debt

As of June 30, 2016, debt service requirements of the variable-rate debt and net swap payments, assuming current interest rates remain the same, for their term are as follows. As rates vary, variable-rate bond interest payments and net swap payments will vary.

Fiscal Year	Variable Rate Bonds		Net Interest Rate Swap	
Ending June 30,	Principal	Interest	Payment	Total
2017	$ 0	$ 53,750	$ 472,213	$ 525,963
2018	0	53,750	472,213	525,963
2019	0	53,750	472,213	525,963
2020	0	53,750	472,213	525,963
2021	0	53,750	472,213	525,963
2022-2026	1,435,000	268,750	2,361,063	4,064,813
2027-2030	11,065,000	122,851	1,079,289	12,267,140
	$ 12,500,000	$ 660,351	$ 5,801,417	$ 18,961,768

Derivative Instrument

As of June 30, 2016 and 2015, the District had the following derivative instrument outstanding:

Instrument	Type	Objective	Original Notional Amount	Effective Date	Maturity Date	Terms
$12,500,000 Swap	Interest Rate Swap	Variable to Synthetic Fixed Rate Swap	$12,500,000	8/28/2009	6/1/2030	Pay 4.40% and receive 63.5 % of five year LIBOR.

The fair value balance and notional amount outstanding at June 30, 2016 and 2015, classified by type and changes in fair value for 2016 and 2015 are reported in the financial statements as follows:

Type	Change in Fair Value		Fair Value		
	Classification	Amount	Classification	Amount	Notional Amount
Investment Derivative:					
Pay Fixed Interest Rate Swap:					
$12,500,000					
2016	Investment (Loss)	$ (905,655)	Debt	$ (4,302,381)	$ 12,500,000
2015	Investment (Loss)	(3,396,726)	Debt	(3,396,726)	12,500,000

The interest rate swap agreement described above did not meet criteria to be an effective hedge; therefore, these swaps are classified as an investment derivative.

NOTE 9 - NET POSITION

Net position represents the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. The net position for 2016 and 2015 is as follows:

		2016		2015
Net Investment in Capital Assets:				
Net Property, Plant and Equipment	$	147,122,607	$	139,172,165
Less: Revenue Bonds & Notes Payable - Net of Discounts, Premiums and Deferred Refunding Losses		(78,066,498)		(69,123,664)
Plus: Debt Proceeds to be Used for Capital Assets		6,281,090		254,239
Less: Reclassification from Restricted for Capital Assets Activity		300,411		(713,084)
		75,637,610		69,589,656
Restricted for Capital Assets Activity:				
Restricted Cash and Cash Equivalents		300,411		254,239
Restricted Investments		6,786,627		0
Less: Accounts Payable for Capital Assets		(505,537)		(713,084)
Less: Debt Proceeds to be Used for Capital Assets		(6,281,090)		(254,239)
Reclassified to Net Investment in Capital Assets		(300,411)		713,084
		0		0
Restricted for Debt Service:				
Restricted Cash and Cash Equivalents		170,088		109,678
Debt Service Funds on Deposit with the State of Tennessee		127,092		127,092
Less: Applicable Accrued Bond Interest Payable		(229,834)		(194,221)
		67,346		42,549
Unrestricted		11,583,634		13,006,501
Total Net Position	$	87,288,590	$	82,638,706

NOTE 10 - PENSION PLANS

A. Single-Employer Plan - West Knox Utility District Defined Benefit Plan

General Information about the Defined Benefit Pension Plan

Plan Description - The District's single-employer defined benefit pension plan, the West Knox Utility District Defined Benefit Pension Plan (the Plan), provides pension benefits for all full-time employees of the District who have been employed for at least 6 months and are at least 21 years old. The Plan is a single-employer noncontributory retirement and assets are held with Reliance Trust Company as investment custodian and in trust with Countybank Trust Services and Commercial Bank and Trust Company. The plan and is administered by USI Consulting Group.

Benefits Provided – The Plan provides retirement, disability and death benefits. Retirement benefits are calculated as 2.25% per year of service (limited to 100%) times the highest average of 36 consecutive months of compensation. The Plan provides participants with a life annuity with ten years certain, with several other options for retirement benefit payments, including several annuity choices or a lump sum payment. Vesting begins at 20% per year after one year of service. An employee becomes fully vested after five years of service and normal retirement age is 65.

Article V.A. of the Plan document also includes a provision for supplemental retirement accounts for certain designated personnel. Designated personnel are determined by the Board of Commissioners. Contribution credits are added to the balance of the supplemental retirement account equal to 10% of the participant's annual rate of salary. Interest is also credited to the balance of the supplemental retirement account at an annual rate of 5%. The account balance can be paid out in the form of a lump sum or under any other form of benefit permitted by the Plan. If a participant terminates employment prior to their early retirement date, the supplemental retirement account is forfeited.

NOTE 10 - PENSION PLANS (Continued)

A. Single-Employer Plan - West Knox Utility District Defined Benefit Plan (Continued)

General Information about the Defined Benefit Pension Plan (Continued)

The District's Board of Commissioners has the authority to amend or change the Plan and its benefit terms. The Plan does not issue separate financial statements.

The District's Board of Commissioners amended the Plan on November 21, 2013 to provide another option that can be chosen, whereby the beneficiary of a participant who dies after annuity benefit payments under the Plan begin will be entitled to a death benefit equal to the excess, if any, of the lump sum value of the participant's total accrued benefit compared to the total amount of benefit payments made to the participant prior to their death.

Employees Covered by Benefit Terms - At June 30, 2016 and 2015, the following number of employees were covered by the benefit terms:

	2016	2015
Inactive Employees, or Beneficiaries, Currently Receiving Benefits	3	2
Inactive Employees, Entitled to, but not yet Receiving Benefits	7	5
Active Employees	62	63
Total	72	70

Contributions - The Board of Commissioners establishes contribution amounts based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability for past service costs. For the years ended June 30, 2016 and 2015, the District's contributions were approximately 37% and 36%, respectively, of annual covered-employee payroll.

Net Pension Liability

The District's net pension liability was measured as of June 30, 2016 and 2015, and the total pension liability used to calculate the net pension liability was determined by actuarial valuations as of July 1, 2016 and 2015.

Actuarial Assumptions - The total pension liability in the June 30, 2016 and 2015, actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method: Entry Age Normal
Amortization Method: Level Percentage of Payroll, Closed
Remaining Amortization Period: 28 Years (2016) 29 (2015)
Asset Valuation Method: Fair Market Value
Investment Rate of Return: 7.25% per Annum
Discount Rate: 7.25%
Salary Increases: 4.00% per Annum
Lump Sums: 50% Election Rate; 4.25% Present Value Rate
Retirement Age: 50% Unreduced Early Retirement 50% Normal Retirement Age
Cost of Living Increase: 0.00% (2016 and 2015)
Mortality: TCRS Mortality Assumptions

The actuarial assumptions used in the June 30, 2016 and 2015 valuations were based on the results of actual experience with the plan for the past five years.

NOTE 10 - PENSION PLANS (Continued)

A. Single-Employer Plan - West Knox Utility District Defined Benefit Plan (Continued)

Net Pension Liability (Continued)

Investment Policies and Strategies - The Plan's trustees have adopted an investment policy to ensure that sufficient investment income can be generated to accumulate resources to pay benefits. The long-term expected rate of return on pension plan investments was determined using a modified building blocks methodology in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding an assumed inflation rate of 2.0% (2016 and 2015) per annum. The target allocation and best estimates of average long-term expected real rates of return, net of 2.0% inflation, for each major asset class as of June 30, 2016 are summarized in the following table:

Asset Class	Target Allocation	Average Long-Term Expected Real Rate of Return
Domestic Equity	28%	7.20%
International Equity	15%	8.08%
Fixed Income	32%	3.86%
Market Neutral/Alternative	19%	5.75%
Real Estate	5%	6.32%
Cash & Other	1%	2.36%
Total	100%	

Rates of Return (Loss) - The annual money-weighted rates of return (losses) on the Plan's investments, net of investment expenses for the fiscal years 2016 and 2015 was (.98)% and 1.91%, respectively.

Discount Rate - The discount rate used to measure the total pension liability for fiscal years 2016 and 2015 was 7.25%. The projection of cash flows used to determine the discount rate assumed that District contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Tennessee State Law for Local Government Sponsored Defined Benefit Plans – In May 2014, the Tennessee General Assembly passed "The Public Employee Defined Benefit Financial Security Act of 2014", Tennessee Code Section 9-3-501, which will require the District to make annual employer contributions equal to 100% of its actuarially determined contributions (ADC), use the entry age normal cost method, limit future pension benefit improvements if the net pension plan funded ratio is less than 60% and other requirements beginning in fiscal year 2016 with various provisions phased in through FY 2020.

NOTE 10 - PENSION PLANS (Continued)

A. Single-Employer Plan – West Knox Utility District Defined Benefit Plan (Continued)

Changes in Net Pension Liability

The changes in net pension liability are shown below:

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Position Liability
For the Fiscal Year Ended June 30, 2016	(a)	(b)	(a) - (b)
Balances at June 30, 2015	$ 12,940,537	$ 6,885,320	$ 6,055,217
Changes for the Year			
Service Cost	286,353	0	286,353
Interest	946,685	0	946,685
Difference between Expected and Actual Experience	(1,532,910)	0	(1,532,910)
Contributions - Employer	0	990,000	(990,000)
Net Investment Income (Loss)	0	(70,346)	70,346
Benefit Payments - Annuities	(169,939)	(169,939)	0
Benefit Payments - Lump Sum	(174,409)	(174,409)	0
Administrative Expenses	0	(2,323)	2,323
Net Changes	(644,220)	572,983	(1,217,203)
Balances at June 30, 2016	$ 12,296,317	$ 7,458,303	$ 4,838,014
For the Fiscal Year Ended June 30, 2015			
Balances at June 30, 2014	$ 11,569,082	$ 5,956,762	$ 5,612,320
Changes for the Year			
Service Cost	275,339	0	275,339
Interest	852,188	0	852,188
Difference between Expected and Actual Experience	(204,492)	0	(204,492)
Changes of assumptions	641,644	0	641,644
Contributions - Employer	0	1,002,000	(1,002,000)
Net Investment Income	0	121,395	(121,395)
Benefit Payments - Annuities	(135,230)	(135,230)	0
Benefit Payments - Lump Sum	(57,994)	(57,994)	0
Administrative Expenses	0	(1,613)	1,613
Net Changes	1,371,455	928,558	442,897
Balances at June 30, 2015	$ 12,940,537	$ 6,885,320	$ 6,055,217

Sensitivity of the Net Pension Liability to Changes in the Discount Rate - The following presents the net pension liability of the District as of June 30, 2016 and 2015, calculated using the discount rate of 7.25%, as well as what the District's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

Net Pension Liability	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
2016	$ 6,598,762	$ 4,838,014	$ 3,366,789
2015	7,315,900	6,055,217	4,964,252

NOTE 10 - PENSION PLANS (Continued)

A. Single-Employer Plan - West Knox Utility District Defined Benefit Plan (Continued)

Pension Expense and Deferred Outflows of Resources and Deferred Inflow of Resources Related to Plan

For the years ended June 30, 2016 and 2015, the District recognized pension expense of $749,568 and $788,760, respectively for the Plan. At June 30, 2016 and 2015, the District reported deferred outflows of resources and deferred inflows of resources related to the Plan from the following sources:

	2016		2015	
	Deferred Outflows of Resources	Deferred Inflows Resources	Deferred Outflows of Resources	Deferred Inflows Resources
Differences Between Expected and Actual Experience	$ 0	$ 1,485,360	$ 0	$ 179,854
Changes of Assumptions	487,030	0	564,337	0
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	677,696	0	271,654	0
Total	$ 1,164,726	$ 1,485,360	$ 835,991	$ 179,854

Amounts reported as deferred outflows of resources and deferred inflow of resources related to the Plan will be recognized in pension expense as follows:

For the Years Ended June 30,	2016
2016	$ 0
2017	36,305
2018	36,305
2019	36,307
2020	(31,609)
2021	(150,097)
2022 & Thereafter	(247,845)
Total	$ (320,634)

Payable to Pension Plan

At June 30, 2016 and 2015, the District did not report a payable for any outstanding amount of employer contributions to the Plan required for the years ended June 30, 2016 and 2015 since all contributions were paid prior to year-end.

Trend Information

The schedule of changes in the District’s net position liability and related ratios, schedule of the District’s pension contributions and schedule of investment returns, as presented in required supplementary information (RSI) following the notes to financial statements, will present multi-year trend information in the future about whether the Plan’s fiduciary net position is increasing or decreasing over time relative to the total pension liability and net pension liability and whether the District’s contributions and investment returns are in accordance with the actuarially determined amounts.

NOTE 10 - PENSION PLANS (Continued)

B. Agent Multiple-Employer Defined Benefit Plan – Tennessee Consolidated Retirement System (TCRS)

Plan Description - Former employees of the District who retired prior to July 1, 1991 are provided a defined benefit pension plan through the Public Employee Retirement Plan, an agent multiple-employer pension plan administered by the TCRS. TCRS was created by state statute under Tennessee Code Annotate (TCA) Title 8, Chapters 34-37. The TCRS Board of Trustees is responsible for the proper operation and administration of the TCRS. The Tennessee Treasury Department, an agency in the legislative branch of state government, administers the plans of TCRS. TCRS issues a publicly available financial report that can be obtained at www.treasury.tn.gov/tcrs. The District withdrew from TCRS on July 1, 1991. Active employees of the District as of that date transferred their account balances to the West Knox Utility District Defined Benefit Plan. See Note 11-A about the West Knox Utility District Defined Benefit Plan.

Benefits Provided - TCA Title 8, Chapters 34-37 establishes the benefit terms and can be amended only by the Tennessee General Assembly. The chief legislative body may adopt the benefit terms permitted by state statute. Members are eligible to retire with an unreduced benefit at age 60 with 5 years of service credit or after 30 years of service credit regardless of age. Benefits are determined by a formula using the member's highest five consecutive year compensation and the member's years of service credit. Reduced benefits for early retirement are available at age 55 for members who are vested. Members vest with five years of service credit. Service related disability benefits are provided regardless of length of service. Five years of service is required for non-service related disability eligibility. The service related and non-service related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria.

Member and beneficiary annuitants are entitled to automatic cost of living adjustments (COLA's) after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July in the previous year. A COLA is based on the change in the consumer price index (CPI) during the prior calendar year, capped at 3%, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. A member who leaves employment may withdraw their employee contributions, plus any accumulated interest.

Employees Covered by Benefit Terms - At the measurement date of June 30, 2015 and 2014, the following employees were covered by the benefit terms:

	2015	2014
Inactive Employees, or Beneficiaries, Currently Receiving Benefits	4	5
Inactive Employees, Entitled to, but not yet Receiving Benefits	0	0
Active Employees	0	0
Total	4	5

Effective July 1, 1991, this plan was closed to new participants and the District's eligible full-time employees were enrolled in the District's single-employer defined benefit plan.

Contributions - Contributions for employees are established in the statutes governing the TCRS and may only be changed by the Tennessee General Assembly. The District makes employer contributions at the rate set by the TCRS Board of Trustees as determined by an actuarial valuation. For the years ended June 30, 2015 and 2014, the Actuarially Determined Contributions (ADC) for West Knox Utility District were $0 based on a rate of 0% of covered payroll. By law, employer contributions are required to be paid. The TCRS may intercept the District's state shared taxes, if applicable, if the required employer contributions are not remitted. The employer's ADC and member contributions are expected to finance the costs of benefits earned by members during the year, the cost of administration, as well as an amortized portion of any unfunded liability. Based upon the District withdrawing from TCRS as of July 1, 1991, the employer contributions were fully funded at that time and no contributions are expected in the near term.

NOTE 10 - PENSION PLANS (Continued)

B. Agent Multiple-Employer Defined Benefit Plan – TCRS (Continued)

The District's net pension liability (asset) was measured as of June 30, 2015 and 2014, and the total pension liability used to calculate net pension liability (asset) was determined by an actuarial valuation as of those dates.

Actuarial Assumptions - The total pension liability as of the June 30, 2015 and 2014 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.0%
Salary Increases	Graded salary ranges from 8.97% to 3.71% based on age, including inflation, averaging 4.25%.
Investment Rate of Return	7.5%, net of pension plan investment expenses, including inflation
Cost-of-Living-Adjustment	2.5%

Mortality rates were based on actual experience from the June 30, 2012 actuarial experience study adjusted for some of the expected future improvement in life expectancy.

The actuarial assumptions used in the June 30, 2015 and 2014 actuarial valuations were based on the results of an actuarial experience study performed for the period July 1, 2008 through June 30, 2012. The demographic assumptions were adjusted to more closely reflect actual and expected future experience.

The long-term expected rate of return on pension plan investments was established by the TCRS Board of Trustees in conjunction with the June 30, 2012 actuarial experience study by considering the following three techniques: (1) the 25-year historical return of the TCRS at June 30, 2012, (2) the historical market returns of asset classes from 1926 to 2012 using the TCRS investment policy allocation, and (3) capital market projections that were utilized as a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expenses and inflation) are developed for each major asset class. Four sources of capital market projections were blended and utilized in the third technique. The blended capital market projection established the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding inflation of 3%.

Net Pension Liability (Asset)

The target allocation and best estimates of arithmetic real rates of return, net of 3% inflation, for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Average Long-Term Expected Real Rate of Return
U.S. Equity	33%	6.46%
Developed Market International Equity	17%	6.26%
Emerging Market International equity	5%	6.40%
Private Equity and Strategic Lending	8%	4.61%
U.S. Fixed Income	29%	0.98%
Real Estate	7%	4.73%
Short-Term Securities	1%	0.00%
Total	100%	

The long-term expected rate of return on pension plan investments was established by the TCRS Board of Trustees as 7.5% based on a blending of the three factors described above.

NOTE 10 - PENSION PLANS (Continued)

B. Agent Multiple-Employer Defined Benefit Plan - TCRS (Continued)

Discount Rate - The discount rate used to measure the total pension liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current rate and that employer contributions from the District will be made at the actuarially determined contribution rate pursuant to an actuarial valuation in accordance with the funding policy of the TCRS Board of Trustees and as required to be paid by state statute. Based on those assumptions, the pension plans' fiduciary net position was projected to be available to make projected future benefit payments of current active and inactive members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability (Asset)

Changes in the net pension liability (asset) for the measurement period ending June 30, 2015 and 2014 are shown below:

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Position Liability (Asset) (a) - (b)
Balances at June 30, 2014	$ 81,702	$ 505,009	$ (423,307)
Changes for the Year			
Interest	5,507	0	5,507
Difference between Expected and Actual Experience	(19,190)	0	(19,190)
Net Investment Income	0	15,299	(15,299)
Benefit Payments - Annuities	(16,556)	(16,556)	0
Administrative Expenses	0	0	0
Net Changes	(30,239)	(1,257)	(28,982)
Balances at June 30, 2015	$ 51,463	$ 503,752	$ (452,289)
Balances at June 30, 2013	$ 86,226	$ 451,503	$ (365,277)
Changes for the Year			
Interest	5,729	0	5,729
Difference between Expected and Actual Experience	9,424	0	9,424
Net Investment Income	0	73,216	(73,216)
Benefit Payments - Annuities	(19,677)	(19,677)	0
Administrative Expenses	0	(33)	33
Net Changes	(4,524)	53,506	(58,030)
Balances at June 30, 2014	$ 81,702	$ 505,009	$ (423,307)

Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate - The following presents the net pension liability (asset) of the District calculated using the discount rate of 7.5%, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is 1% lower (6.5%) or 1% higher (8.5%) than the current rate:

Net Pension Liability (Asset)	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
2015	$ (450,740)	$ (452,289)	$ (453,741)
2014	(420,474)	(423,307)	(425,944)

NOTE 10 - PENSION PLANS (Continued)

B. Agent Multiple-Employer Defined Benefit Plan – TCRS (Continued)

Pension Income and Deferred Inflows of Resources

For the fiscal years ended June 30, 2016 and 2015, the District recognized pension income of $54,565 and $25,956 for the TCRS Plan. For the fiscal year ended June 30, 2016 and 2015, the District reported deferred outflows of resources and deferred inflows of resources as follows:

	2016		2015
	Deferred Outflows of Resources	Deferred Inflows Resources	Deferred Inflows Resources
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	$ 17,565	$ 24,056	$ 32,074

Amounts reported as deferred inflows of resources related to the TCRS Plan will be recognized in the pension expense as follows:

For the Years ended June 30:	
2016	$ 0
2017	(3,627)
2018	(3,627)
2019	(3,627)
2020	4,390
Total	$ (6,491)

In the table above, positive amounts will increase pension expense while negative amounts will decrease pension expense.

Payable to the Pension Plan

Since the District has fully funded this Plan in prior years, as of June 30, 2016 and 2015, there is no employer contribution payable.

Required Supplementary Information

The District has presented as required supplementary information (RSI) following the notes to the financial statements, multiyear trend information about whether the net pension liability (asset) assets is increasing or decreasing over time relative to the plan's fiduciary net position and if the District has made its actuarial determined contributions as required by the TCRS.

C. Other

Both of the defined benefit pension plans are sponsored by a governmental entity; therefore these plans are not covered by the Pension Benefit Guaranty Corporation, a U.S. Government Agency. In addition, these plans are not subject to the statutory provisions of the Employee Retirement and Income Security Act of 1974 (ERISA).

NOTE 11 - NET WATER REVENUES

Net water revenues earned during 2016 and 2015 were as follows:

	2016	2015
Gross Water Revenues	$ 9,252,320	$ 8,708,485
Less: Provision for Bad Debt Expense	(163,140)	(96,844)
Net Water Revenues	$ 9,089,180	$ 8,611,641

NOTE 12 - RISK MANAGEMENT

The District is exposed to various risks of losses related to torts; theft of damage to, and destruction of assets; injuries to employees; and natural disasters. The District carries commercial insurance for these risks. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three years.

NOTE 13 - ECONOMIC CONCENTRATION

The majority of the District's customers reside in the western portion of Knox County, Tennessee. A significant number of the District's customers are employed with various federal government contractors located in Oak Ridge, Tennessee. These contractors operate several U.S. Department of Energy (DOE) facilities that are vital to research and development, national defense and waste management. DOE operations are contingent upon annual U.S. congressional appropriations.

The District's ten largest customers approximate 9% of water and wastewater sales for both 2016 and 2015. These customers are primarily rental properties, various corporations and a hospital.

NOTE 14 - EPA VIOLATIONS

On September 26, 2011, the District entered into an administrative order with the U.S. Environmental Protection Agency (EPA) concerning the District’s compliance with the Clean Water Act (CWA) and specifically Sanitary Sewer Overflows (SSO). The District was required to submit a Corrective Action Plan (CAP) to the EPA by April 1, 2012. The CAP was expected to provide details of the District’s plans for improvements to its wastewater collection system to address ongoing SSO issues in sewer sub-basins 9 and 10. The CAP was also to include an implementation schedule for these improvements for the years of 2012 through 2016.

The Corrective Action Plan was prepared and submitted to the EPA on schedule by April 1, 2012. The EPA subsequently approved the CAP in May 2012. The CAP identified five capital improvement projects to be completed by the District at an estimated cost of $6,600,000. Currently all of the five projects have been completed. To date the District is in full compliance.

The EPA administrative order also specifically called for two other capital improvement projects to be completed that were not part of the CAP. These have both also been completed at a combined cost of approximately $1,300,000.

On September 20, 2016, the District received written notification from the EPA that the administrative order was closed and determined that the District has completed the requirements of the consent order as described above.

NOTE 15 - SUBSEQUENT EVENTS

Effective July 1, 2016, the District's Board of Commissioners approved an increase in wastewater rates of $.50 per thousand gallons. In addition, the Board of Commissioners increased the minimum monthly water charge by $5.00 for commercial customers.

On September 20, 2016, the District received written notice from the U.S. Environmental Protection Agency (EPA) that closed the administrative order was closed and determined that the District has completed the requirements of the consent order as described in Note 14.

REQUIRED SUPPLEMENTARY INFORMATION

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PENSION TRUST FUND

SCHEDULE OF CHANGES IN THE DISTRICT'S NET PENSION LIABILITY AND RELATED RATIOS SINGLE EMPLOYER PLAN - WKUD DEFINED BENEFIT PLAN

For the Years Ended June 30,

	2016	2015	2014
Total Pension Liability			
Service Cost	$ 286,353	$ 275,339	$ 327,590
Interest	946,685	852,188	774,716
Changes Due to Benefit Terms	0	0	0
Differences between Expected and Actual Experience	(1,532,910)	(204,492)	0
Changes of assumptions	0	641,644	0
Benefit Payments	(344,348)	(193,224)	(332,940)
Net Change in Total Pension Liability	(644,220)	1,371,455	769,366
Total Pension Liability - Beginning	12,940,537	11,569,082	10,799,716
Total Pension Liability - Ending (a)	$ 12,296,317	$ 12,940,537	$ 11,569,082
Plan Fiduciary Net Position			
Contributions - Employer	$ 990,000	$ 1,002,000	$ 840,000
Net Investment Income (Loss)	(70,346)	121,395	686,171
Benefit Payments	(344,348)	(193,224)	(332,940)
Administrative Expense	(2,323)	(1,613)	(1,415)
Net Change in Plan Fiduciary Net Position	572,983	928,558	1,191,816
Plan Fiduciary Net Position - Beginning	6,885,320	5,956,762	4,764,946
Plan Fiduciary Net Position - Ending (b)	$ 7,458,303	$ 6,885,320	$ 5,956,762
Net Pension Liability - Ending (a) - (b)	$ 4,838,014	$ 6,055,217	$ 5,612,320
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	60.65%	53.21%	51.49%
Covered-Employee Payroll	$ 2,694,442	$ 2,752,316	$ 2,698,662
Net Pension Liability as a Percentage of Covered-Employee Payroll	179.56%	220.00%	207.97%

Note: This schedule is first required for the fiscal year ended June 30, 2014. Future years will include subsequent disclosures for comparative purposes.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PENSION TRUST FUND

SCHEDULE OF THE DISTRICT'S PENSION CONTRIBUTIONS
SINGLE EMPLOYER PLAN - WKUD DEFINED BENEFIT PLAN

For the Years Ended June 30,

	2016	2015	2014
Actuarially Determined Contribution (ADC)	$ 804,412	$ 692,994	$ 768,824
Contributions in Relation to the Actuarially Determined Contribution	990,000	1,002,000	840,000
Contribution Deficiency (Excess)	$ (185,588)	$ (309,006)	$ (71,176)
Covered-Employee Payroll	$ 2,694,442	$ 2,752,316	$ 2,698,662
Contributions as a Percentage of Covered-Employee Payroll	36.74%	36.41%	31.13%

Note: This schedule is first required for the fiscal year ended June 30, 2014. Future years will include subsequent disclosures for comparative purposes.

Actuarial Methods & Assumptions:

Valuation Dates: July 1, 2015, 2014 and 2013

Actuarial determined contribution rates are calculated as of June 30, 2015, 2014 and 2013.

Methods and Assumptions used to calculate the Actuarially Determined Contribution:

Actuarial Cost Method:	Entry Age Normal
Amortization Method:	Level Percentage of payroll, closed, Unfunded Accrued Liability amortized over 30 years starting July 1, 2014. Gains/losses due to assumption changes are amortized over 30 years. Actuarial gains/losses are amortized over 10 years.
Remaining Amortization Period:	28, 29 and 30 Years
Asset Valuation Method:	Fair Market Value of Assets
Inflation:	0.0%
Salary Increases:	4.0% (2016) & 3.0% (2015 and 2014) Average, including inflation
Investment Rate of Return:	7.25%
Retirement Age:	50% Retire at the initial attainment of unreduced early retirement (Rule of 90) eligibility, the remaining retirement at normal retirement age (2016). Normal Retirement Age (2015 and 2014)
Mortality:	TCRS Mortality Assumptions (2016) IRS 2014 Combined Static Mortality Table (2015 and 2014)

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PENSION TRUST FUND

SCHEDULE OF INVESTMENT RETURNS (LOSSES)
SINGLE EMPLOYER PLAN - WKUD DEFINED BENEFIT PLAN

For the Years Ended June 30,

	2016	2015	2014
Annual Money-Weighted Rate of Return (Loss), Net of Investment Expenses	-0.98%	1.91%	13.59%

Note: This schedule was first required for the fiscal year ended June 30, 2014. Future years will continue to include subsequent disclosures for comparative purposes.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

SCHEDULE OF CHANGES IN THE DISTRICT'S NET PENSION LIABILITY AND RELATED RATIOS BASED ON PARTICIPATION IN THE PUBLIC EMPLOYEE PENSION PLAN OF TCRS

For the Years Ended June 30,

	2015	2014
Total Pension Liability		
Interest	$ 5,507	$ 5,729
Differences between Expected and Actual Experience	(19,190)	9,424
Benefit Payments	(16,556)	(19,677)
Net Change in Total Pension Liability	(30,239)	(4,524)
Total Pension Liability - Beginning	81,702	86,226
Total Pension Liability - Ending (a)	$ 51,463	$ 81,702
Plan Fiduciary Net Position		
Net Investment Income	$ 15,299	$ 73,216
Benefit Payments	(16,556)	(19,677)
Administrative Expense	0	(33)
Net Change in Plan Fiduciary Net Position	(1,257)	53,506
Plan Fiduciary Net Position - Beginning	505,009	451,503
Plan Fiduciary Net Position - Ending (b)	$ 503,752	$ 505,009
Net Pension Liability (Asset) - Ending (a) - (b)	$ (452,289)	$ (423,307)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	978.86%	618.11%
Covered-Employee Payroll	$ 0	$ 0
Net Pension Liability as a Percentage of Covered-Employee Payroll	N/A	N/A

NOTES:

A. This schedule was first required for the fiscal year ended June 30, 2015. Future years will include additional subsequent disclosures for comparative purposes.

B. This plan is frozen and no active District employees participate in this plan. All active District employees participate in the West Knox Utility District Defined Benefit Plan.

C. Schedule of District's Pension Contributions is not applicable for TCRS plan. This plan has been fully funded by the District since July 1, 1991; there were no actuarially determined contributions calculated for the years presented.

D. The amount presented for each fiscal year is based upon the measurement period which is the TCRS prior fiscal year end.

SUPPLEMENTARY INFORMATION SECTION

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

SCHEDULE OF DEBT SERVICE REQUIREMENTS

June 30, 2016

Fiscal Year Ending June 30,	$9,995,000 Water and Sewer Revenue Bonds Series 2015		$35,425,000 Public Improvement Revenue Bonds Series 2009-V-B-1		$35,000,000 Water and Sewer Revenue Bonds (BABS) - Series 2010		$1,340,000 Rural Development Water & Sewer Revenue Bonds Series 2004		Total Revenue Bonds	
	Principal	Interest	Principal	Interest	Principal	Interest (a)	Principal	Interest	Total Principal	Total Interest
2017	$ 0	$ 332,525	$ 1,045,000	$ 1,252,440	$ 0	$ 1,606,491	$ 23,942	$ 48,577	$ 1,068,942	$ 3,240,033
2018	0	332,525	1,095,000	1,208,199	0	1,606,491	25,011	47,509	1,120,011	3,194,724
2019	0	332,525	1,150,000	1,161,850	0	1,606,491	26,128	46,392	1,176,128	3,147,258
2020	120,000	332,525	0	1,109,037	0	1,606,491	27,294	45,226	147,294	3,093,279
2021	125,000	326,525	1,210,000	1,113,180	250,000	1,606,491	28,512	44,008	1,613,512	3,090,204
2022	125,000	320,275	1,270,000	1,061,961	250,000	1,599,432	29,785	42,735	1,674,785	3,024,403
2023	125,000	317,775	1,335,000	1,008,208	250,000	1,592,118	31,114	41,406	1,741,114	2,959,507
2024	125,000	315,275	1,400,000	951,693	250,000	1,584,462	32,503	40,017	1,807,503	2,891,447
2025	125,000	312,650	1,470,000	892,433	250,000	1,576,637	33,954	38,566	1,878,954	2,820,286
2026	150,000	310,025	1,545,000	730,214	250,000	1,568,556	35,470	37,050	1,980,470	2,645,845
2027	150,000	306,650	1,620,000	764,809	250,000	1,560,222	37,053	35,467	2,057,053	2,667,148
2028	150,000	303,275	1,700,000	696,233	250,000	1,550,525	38,707	33,813	2,138,707	2,583,846
2029	150,000	299,525	1,785,000	624,274	250,000	1,540,829	40,435	32,085	2,225,435	2,496,713
2030	150,000	295,775	1,875,000	548,719	250,000	1,531,132	42,240	30,280	2,317,240	2,405,906
2031	175,000	291,275	1,970,000	469,357	250,000	1,520,076	44,125	28,395	2,439,125	2,309,103
2032	300,000	286,025	2,070,000	385,974	250,000	1,509,017	46,095	26,425	2,666,095	2,207,441
2033	300,000	277,325	2,170,000	298,342	250,000	1,497,961	48,153	24,367	2,768,153	2,097,995
2034	300,000	268,625	2,280,000	206,493	250,000	1,486,902	50,302	22,218	2,880,302	1,984,238
2035	325,000	259,625	2,395,000	109,987	250,000	1,475,846	52,547	19,973	3,022,547	1,865,431
2036	550,000	249,063	0	0	2,550,000	1,464,787	54,893	17,627	3,154,893	1,731,477
2037	550,000	231,188	0	0	2,675,000	1,352,004	57,343	15,177	3,282,343	1,598,369
2038	600,000	213,312	0	0	2,775,000	1,233,691	59,903	12,617	3,434,903	1,459,620
2039	625,000	192,312	0	0	2,900,000	1,103,400	62,577	9,943	3,587,577	1,305,655
2040	650,000	170,437	0	0	3,025,000	967,243	65,370	7,150	3,740,370	1,144,830
2041	700,000	147,688	0	0	3,150,000	825,196	68,288	4,232	3,918,288	977,116
2042	775,000	123,188	0	0	3,275,000	675,177	59,488	1,419	4,109,488	799,784
2043	825,000	96,063	0	0	3,475,000	519,184	0	0	4,300,000	615,247
2044	900,000	66,156	0	0	3,625,000	353,664	0	0	4,525,000	419,820
2045	925,000	33,531	0	0	3,800,000	181,000	0	0	4,725,000	214,531
Total	$ 9,995,000	$ 7,343,663	$ 29,385,000	$ 14,593,403	$ 35,000,000	$ 38,301,516	$ 1,121,232	$ 752,674	$ 75,501,232	$ 60,991,256

(a) Note: The interest related to the BABS is net of the 35% subsidy payment from the U.S. Government.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

SCHEDULE OF DEBT SERVICE REQUIREMENTS (Continued)

June 30, 2016

Fiscal Year Ending June 30,	Knox County Note Payable		State Revolving Fund Note Payable		Total Debt Service
	Principal	Interest	Principal	Interest	
2017	$ 0	$ 0	$ 102,324	$ 25,349	$ 4,436,648
2018	0	0	103,872	23,814	4,442,421
2019	1,350,000	140,000	105,444	22,256	5,941,086
2020	0	0	107,040	20,674	3,368,287
2021	0	0	108,648	19,068	4,831,432
2022	0	0	110,292	17,439	4,826,919
2023	0	0	111,960	15,784	4,828,365
2024	0	0	113,652	14,105	4,826,707
2025	0	0	115,368	12,400	4,827,008
2026	0	0	117,108	10,670	4,754,093
2027	0	0	118,884	8,913	4,851,998
2028	0	0	120,672	7,130	4,850,355
2029	0	0	122,496	5,320	4,849,964
2030	0	0	124,344	3,482	4,850,972
2031	0	0	107,802	1,617	4,857,647
2032	0	0	0	0	4,873,536
2033	0	0	0	0	4,866,148
2034	0	0	0	0	4,864,540
2035	0	0	0	0	4,887,978
2036	0	0	0	0	4,886,370
2037	0	0	0	0	4,880,712
2038	0	0	0	0	4,894,523
2039	0	0	0	0	4,893,232
2040	0	0	0	0	4,885,200
2041	0	0	0	0	4,895,404
2042	0	0	0	0	4,909,272
2043	0	0	0	0	4,915,247
2044	0	0	0	0	4,944,820
2045	0	0	0	0	4,939,531
Total	$ 1,350,000	$ 140,000	$ 1,689,906	$ 208,021	$ 139,880,415

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

SCHEDULE OF WATER RATES AND STATISTICS

June 30, 2016 and 2015

1. As of June 30, 2016 and 2015, the District serviced water and wastewater customers as shown below. Hotels, motels and apartments are billed on a commercial, per unit basis.

	Water Customers	Billing Units	Wastewater Customers	Billing Units
2016				
Residential	22,341	22,341	18,041	18,041
Commercial	1,028	1,028	592	592
Multi-Space Units	60	3,186	58	3,186
Total	23,429	26,555	18,691	21,819
2015				
Residential	21,847	21,847	17,566	17,566
Commercial	893	893	582	582
Multi-Space Units	60	3,399	40	3,399
Total	22,800	26,139	18,188	21,547

2. Monthly Water Rate Schedule - (Effective July 1, 2015 and 2014)

	2016	2015
(a) Residential Water Rate:		
Customer Charge	$13.05 minimum bill	$13.05 minimum bill
	$3.46 per 1,000 Gal.	$3.21 per 1,000 Gal.
(b) Commercial, Municipal, Public Schools, Hospital Service Rate:		
Customer Charge	$16.00 minimum bill	$16.00 minimum bill
	$3.46 per 1,000 Gal.	$3.21 per 1,000 Gal.
(c) Hotel, Motel per Unit or Space:		
Customer Charge	$6.11 minimum bill	$6.11 minimum bill
	$3.46 per 1,000 Gal.	$3.21 per 1,000 Gal.

3. Monthly Wastewater Rate Schedule - (Effective July 1, 2015 and 2014)

	2016	2015
(a) Residential Rate:		
1st	$22.27 minimum bill	$22.27 minimum bill
Next	12,000 Gal. - $5.84 per 1,000 Gal.	12,000 Gal. - $4.84 per 1,000 Gal.
All over	13,000 Gal. - No Charge	13,000 Gal. - No Charge
(b) Commercial, Municipal, Public Schools, Hospital Rate:		
1st	$30.80 minimum bill	$30.80 minimum bill
All over	$5.84 per 1,000 Gal.	$4.84 per 1,000 Gal.
(c) Hotel, Motel per Unit or Space:		
1st	$16.92 minimum bill	$16.92 minimum bill
All over	$5.84 per 1,000 Gal.	$4.84 per 1,000 Gal.
(d) Industrial Rate determined on an individual basis.		

	2016	2015
4. Wastewater Treated (Per Thousand Gallons)	1,489,600	1,312,590

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

SCHEDULE OF INSURANCE COVERAGE

June 30, 2016

	Coverage
Selective Insurance Company of South Carolina	
Commercial General Liability & Umbrella - Aggregate Coverage	$ 2,000,000
Products Liability and Completed Operations - Each Occurrence Limit	2,000,000
Personal and Advertising Injury	1,000,000
Fire Damage Limite - Per Occurrence	100,000
Great American Insurance Group	
Directors & Officers Liability:	
Claims Including Employment Practices Wrongful Acts	10,000,000
Selective Insurance Company of South Carolina	
Comprehensive Automobile Liability:	
Bodily Injury and Property Damage	1,000,000
Medical Payments (Private Passenger Autos)	5,000
Uninsured Motorist	1,000,000
Comprehensive (Designated Vehicles) - Deductible	500 - 2,000
Collision (Designated Vehicles) - Deductible	500 - 2,000
Selective Insurance Company of South Carolina	
Property, Casulty and Extended Coverage:	
All Buildings, Pump Stations, Water Reservoirs, Water Treatment Plants and Wastewater Treatment Plan - Co-Insurance 90%	21,473,764
Selective Insurance Company of South Carolina	
Inland Marine:	
Contractors Equipment - $500 Deductible	595,732
Selective Insurance Company of South Carolina	
Crime, Dishonesty & Fidelity:	
Burglary and Robbery - Inside	1,000
Burglary and Robbery - Outside	1,000
Employee Dishonesty (Per Employee)	100,000
Accident Fund Insurance Company of America	
Worker's Compensation:	
Bodily Injury by Accident	100,000
Bodily Injury by Disease - Policy Limit & Individual Limit	500,000/100,000
Beazley Insruance Company, Inc.	
Cyber Security Liability:	
Policy Aggregate Limit of Liability	1,000,000
Breach of Privacy Respons	100,000

All policies begin November 1, 2015 and expire November 1, 2016.

AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: West Knox Utility District of Knox County (0000371)
Reporting Year: 2015-2016 | 7/2015 - 6/2016

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<----------- Enter grading in column 'E' and 'J' ---------->

WATER SUPPLIED

Item	Grade	Value	Unit	Master Meter and Supply Error Adjustments: Grade	Pcnt:	Value:
Volume from own sources:	8	2,148.193	MG/Yr			MG/Yr
Water imported:	n/a	0.000	MG/Yr	n/a		MG/Yr
Water exported:	n/a	0.000	MG/Yr			MG/Yr
WATER SUPPLIED:		**2,148.193**	MG/Yr			

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Item	Grade	Value	Unit	Pcnt:	Value:
Billed metered:	10	1,741.022	MG/Yr		
Billed unmetered:	10	0.000	MG/Yr		
Unbilled metered:	10	19.767	MG/Yr		
Unbilled unmetered:		26.852	MG/Yr	1.25%	MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION:		**1,787.642**	MG/Yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption) **360.551** MG/Yr

Apparent Losses

Item	Grade	Value	Unit	Pcnt:	Value:
Unauthorized consumption:	5	5.370	MG/Yr	0.25%	MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Item	Grade	Value	Unit	Pcnt:	Value:
Customer metering inaccuracies:	10	17.786	MG/Yr	1.00%	MG/Yr
Systematic data handling errors:		4.353	MG/Yr	0.25%	MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **27.509** MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **333.043** MG/Yr

WATER LOSSES: **360.551** MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: **407.171** MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Item	Grade	Value	Unit
Length of mains:	9	392.0	miles
Number of active AND inactive service connections:	9	23,663	
Service connection density:		60	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:	10	0.0	ft (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Item	Grade	Value	Unit
Average operating pressure:	9	150.0	psi

COST DATA

Item	Grade	Value	Unit
Total annual cost of operating water system:	10	$6,188,778	$/Year
Customer retail unit cost (applied to Apparent Losses):	10	$3.46	$/1000 gallons (US)
Variable production cost (applied to Real Losses):	10	$1,006.44	$/Million gallons ☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 87 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

WAS v5.0

American Water Works Association.

Water Audit Report for: West Knox Utility District of Knox County (0000371)
Reporting Year: 2015-2016 | 7/2015 - 6/2016

***** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 87 out of 100 *****

System Attributes:

Apparent Losses:	27.509	MG/Yr
+ Real Losses:	333.043	MG/Yr
= **Water Losses:**	**360.551**	MG/Yr
? Unavoidable Annual Real Losses (UARL):	310.44	MG/Yr
Annual cost of Apparent Losses:	$95,180	
Annual cost of Real Losses:	$335,187	Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	19.0%	
	Non-revenue water as percent by cost of operating system:	7.7%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	3.18	gallons/connection/day
	Real Losses per service connection per day:	38.56	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.26	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	333.04	million gallons/year
	? Infrastructure Leakage Index (ILI) [CARL/UARL]:	1.07	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

STATISTICAL SECTION

This part of the District's Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the District's overall financial health.

Contents **Pages**

Sources: Unless otherwise noted, the information in these schedules is derived from the Comprehensive Annual Financial Reports for the relevant year.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

NET POSITION BY COMPONENT

Last Ten Fiscal Years

Fiscal Year	Net Investment in Capital Assets	Restricted Capital Activity	Restricted Debt Service	Unrestricted	Total
2007	$ 41,267,013	$ 0	$ 2,326,654	$ 20,120,991	$ 63,714,658
2008	49,936,793	0	2,492,214	18,208,290	70,637,297
2009	56,070,348	0	2,714,591	15,369,624	74,154,563
2010	58,903,105	0	2,735,181	15,826,000	77,464,286
2011	56,393,854	0	3,449,387	19,717,854	79,561,095
2012	57,113,801	0	1,997,699	16,169,090	75,280,590
2013	57,684,980	0	2,008,705	17,522,193	77,215,878
2014	62,874,634	0	391,779	18,460,030	81,726,443
2015	69,589,656	0	42,549	13,006,501	82,638,706
2016	75,637,610	0	67,346	11,583,634	87,288,590

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

CHANGES IN NET POSITION

Last Ten Fiscal Years

	2007	2008	2009	2010	2011
Operating Revenues					
Water, Net	$ 5,165,095	$ 6,064,005	$ 6,056,799	$ 5,840,679	$ 6,579,910
Wastewater	5,269,152	6,050,769	6,055,263	6,021,329	6,627,587
Connection Fees	950,182	1,036,402	479,445	668,361	561,677
Customer Forfeited Discounts	117,458	164,054	119,988	167,133	179,705
Service Fees	111,045	116,000	86,260	110,980	90,425
Wastewater Inspection Fees	15,200	14,650	4,850	12,875	8,075
Miscellaneous	96,034	95,858	26,244	36,955	161,405
Total Operating Revenues	11,724,166	13,541,738	12,828,849	12,858,312	14,208,784
Operating Expenses:					
Water Purification and Supply	870,009	984,906	971,010	952,291	954,279
Wastewater Collection & Treatment	1,611,691	1,912,549	2,019,948	2,001,500	2,147,830
Water Treatment and Distribution	2,062,880	2,057,085	2,177,862	2,056,342	2,203,916
Wastewater CMOM Program	881,854	981,523	937,513	976,066	1,008,816
Shop & General Maintenance	205,248	279,609	244,752	223,464	318,855
Customer Accounting	109,609	121,805	136,668	131,183	131,543
Administrative & General	1,543,672	1,623,820	1,677,726	1,821,977	1,861,405
Depreciation	2,839,447	2,985,239	3,239,722	3,772,274	3,853,377
Total Operating Expenses	10,124,410	10,946,536	11,405,201	11,935,097	12,480,021
Operating Income	1,599,756	2,595,202	1,423,648	923,215	1,728,763
Non-Operating Revenues (Expenses):					
Investment Income, Net	948,715	1,334,544	729,434	357,595	3,591
Interest Expense	(1,357,753)	(1,925,884)	(1,781,968)	(1,354,289)	(1,850,135)
Change in Fair Value of Derivative - Interest Rate Swap	0	0	0	0	0
Debt Issuance Expense	0	0	0	0	0
Arbitrage Expense - Net	(385,000)	0	0	0	0
Other	(11,817)	0	(55,931)	1,386	0
Total Non-Operating Revenues (Expenses), Net	(805,855)	(591,340)	(1,108,465)	(995,308)	(1,846,544)
Increase (Decrease) in Net Position Before Capital Contributions	793,901	2,003,862	315,183	(72,093)	(117,781)
Capital Contributions:					
Cash	61,150	93,815	44,295	770,123	910,539
Developers Contributions of Capital Assets	3,067,158	4,824,962	3,253,324	2,446,918	839,805
Total Capital Contributions	3,128,308	4,918,777	3,297,619	3,217,041	1,750,344
Change in Net Position	$ 3,922,209	$ 6,922,639	$ 3,612,802	$ 3,144,948	$ 1,632,563

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

CHANGES IN NET POSITION (Continued)

Last Ten Fiscal Years

	2012	2013	2014	2015	2016
Operating Revenues					
Water, Net	$ 7,226,168	$ 7,417,294	$ 7,881,838	$ 8,611,641	$ 9,089,180
Wastewater	8,018,859	8,731,351	9,577,125	10,875,487	12,123,653
Connection Fees	486,860	550,392	836,668	893,658	945,437
Customer Forfeited Discounts	237,367	258,370	258,507	285,589	297,708
Service Fees	91,025	102,125	111,675	120,201	129,075
Wastewater Inspection Fees	5,250	7,775	11,730	13,600	14,225
Miscellaneous	151,066	182,748	242,788	199,593	282,617
Total Operating Revenues	16,216,595	17,250,055	18,920,331	20,999,769	22,881,895
Operating Expenses:					
Water Purification and Supply	1,132,055	1,154,874	1,114,272	1,103,041	1,164,483
Wastewater Collection & Treatment	2,325,821	2,821,772	2,220,697	2,438,755	3,036,124
Water Treatment and Distribution	2,445,654	2,393,421	2,547,171	2,894,879	2,879,875
Wastewater CMOM Program	1,302,429	1,415,128	1,465,689	1,545,363	1,560,603
Shop & General Maintenance	306,275	375,418	470,839	333,439	389,611
Customer Accounting	132,195	141,547	122,870	121,724	131,648
Administrative & General	2,211,369	2,072,488	1,880,540	2,089,427	2,102,988
Depreciation	3,916,042	4,179,182	4,601,380	5,269,866	5,375,093
Total Operating Expenses	13,771,840	14,553,830	14,423,458	15,796,494	16,640,425
Operating Income	2,444,755	2,696,225	4,496,873	5,203,275	6,241,470
Non-Operating Revenues (Expenses):					
Investment Income, Net	279,997	234,383	136,580	55,893	187,435
Interest Expense	(2,047,737)	(1,722,259)	(1,714,150)	(2,067,955)	(2,642,317)
Change in Fair Value of Derivative - Interest Rate Swap	0	0	0	(3,396,726)	(905,655)
Debt Issuance Expense	0	0	0	0	(245,259)
Arbitrage Expense - Net	0	0	0	0	0
Other	(29,891)	9,615	4,225	0	26,286
Total Non-Operating Revenues (Expenses), Net	(1,797,631)	(1,478,261)	(1,573,345)	(5,408,788)	(3,579,510)
Increase (Decrease) in Net Position Before Capital Contributions	647,124	1,217,964	2,923,528	(205,513)	2,661,960
Capital Contributions:					
Cash	69,290	2,550	5,100	43,350	203,654
Developers Contributions of Capital Assets	1,745,692	714,774	1,216,660	1,074,426	1,784,270
Total Capital Contributions	1,814,982	717,324	1,221,760	1,117,776	1,987,924
Change in Net Position	$ 2,462,106	$ 1,935,288	$ 4,145,288	$ 912,263	$ 4,649,884

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

CUSTOMER STATISTICS AND RATES

Last Ten Fiscal Years

	Customer Billing Units		Water		Wastewater	
Fiscal Year	Water	Wastewater	Minimum Bill	Rates per 1,000 Gallons	Minimum Bill	Rates per 1,000 Gallons
2007	22,524	17,508	$ 10.55	$ 3.21	$ 16.27	$ 3.84
2008	23,099	18,110	10.55	3.21	16.27	3.84
2009	23,449	18,587	10.55	3.21	16.27	3.84
2010	25,117	20,266	10.55	3.21	16.27	3.84
2011	25,368	20,509	10.55	3.21	16.27	3.84
2012	25,474	20,734	11.30	3.21	19.77	3.84
2013	25,743	21,022	11.30	3.21	21.27	3.84
2014	26,347	21,562	11.30	3.21	21.27	4.09
2015	26,139	21,547	13.05	3.21	22.27	4.84
2016	26,555	21,819	13.05	3.46	22.27	5.84

Notes: (a) Rates are based upon a single family residence.
(b) Minimum bill is based upon the first 2,500 gallons of water purchased for fiscal years 2005 to 2009.
(c) Minimum bill is based upon the first 1,500 gallons of water purchased for the fiscal year 2010 and 2011.
(d) Minimum bills are based upon the first 1,000 gallons of water purchased for the fiscal year 2012.
(e) Effective August 1, 2012 the minimum bill is based upon the first 500 gallons of water purchased and effective July 1, 2013 the gallons were reduced to zero.
(f) The water and wastewater rates are per 1,000 gallons.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

WATER PRODUCED, SOLD AND CONSUMED

Last Ten Fiscal Years

	Gallons of Water (In Thousands)			
Fiscal Year	Water Pumped	Water Sold and Consumed	Water Unbilled	Percent Lost
2007	1,941,109	1,595,267	345,842	17.82
2008	2,046,717	1,734,393	312,324	15.26
2009	1,921,738	1,686,815	234,923	12.22
2010	1,789,928	1,659,172	130,756	7.31
2011	1,970,355	1,748,860	221,495	11.24
2012	2,023,431	1,854,798	168,633	8.33
2013	1,968,943	1,781,663	187,280	9.51
2014	1,893,113	1,692,922	200,191	10.57
2015	2,073,434	1,751,511	321,923	15.53
2016	2,157,867	1,741,200	416,667	19.31

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

ANNUAL TAP SALES

Last Ten Fiscal Years

Fiscal Year	Water Meter Taps Sold	Sewer Taps Sold	Total Taps
2007	683	611	1,294
2008	671	586	1,257
2009	263	196	459
2010	522	481	1,003
2011	315	317	632
2012	227	206	433
2013	356	318	674
2014	509	471	980
2015	593	544	1,137
2016	621	575	1,196

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

NUMBER OF WATER AND SEWER CUSTOMERS BY TYPE

Last Ten Fiscal Years

Fiscal Year	Residential	Multi-Family	Commercial	Hotel/Motel	Total
Water					
2007	18,671	42	629	5	19,347
2008	19,194	42	681	5	19,922
2009	19,498	N/A	722	5	20,225
2010	20,477	N/A	740	5	21,222
2011	20,474	N/A	839	5	21,318
2012	20,531	N/A	854	42	21,427
2013	20,783	N/A	871	42	21,696
2014	21,334	N/A	886	44	22,264
2015	21,847	N/A	893	60	22,800
2016	22,341	N/A	1,028	60	23,429
Wastewater					
2007	14,328	32	402	5	14,767
2008	14,890	32	442	5	15,369
2009	15,093	N/A	467	5	15,565
2010	15,931	N/A	482	5	16,418
2011	16,044	N/A	538	5	16,587
2012	16,258	N/A	549	36	16,843
2013	16,529	N/A	564	38	17,131
2014	17,054	N/A	577	40	17,671
2015	17,566	N/A	582	40	18,188
2016	18,041	N/A	592	58	18,691

Note: (a) Effective 2009 the multi-family category was eliminated.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

WATER AND WASTEWATER RATES (*)

Last Ten Fiscal Years

Water Rates Base Rate		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(First 2,500 Gallons) (e)(f)(g)(h)											
Residential	$	10.55 $	10.55 $	10.55 $	10.55 $	10.55 $	11.30 $	11.30 $	11.30 $	13.05 $	13.05
Multi-Family		9.35	9.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial		14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	16.00	16.00
Hotel/Motel (per unit)		4.36	4.36	4.36	4.36	4.36	4.37	4.37	4.36	6.11	6.11
Usage Rates											
(Per 1,000 Gallons)											
Residential	$	3.21 $	3.21 $	3.21 $	3.21 $	3.21 $	3.21 $	3.21 $	3.21 $	3.21 $	3.46
Multi-Family		3.21	3.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial		3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.46
Hotel/Motel (per unit)		3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.46
All Over 75,000											
Residential	$	2.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Multi-Family		2.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial		2.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hotel/Motel (per unit)		2.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wastewater Rates **Base Rate**											
(First 2,500 Gallons) (e)(f)(g)(h)											
Residential	$	16.27 $	16.27 $	16.27 $	16.27 $	16.27 $	19.77 $	21.27 $	21.27 $	22.27 $	22.27
Multi-Family		14.93	14.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial		24.80	24.80	24.80	24.80	24.80	28.30	29.80	29.80	30.80	30.80
Hotel/Motel (per unit)		10.92	10.92	10.92	10.92	10.92	14.42	14.42	15.92	16.92	16.92

*Notes:
(a) Increases rates must be approved by the Board of Commissioners.
(b) The water rate tier of all over 75,000 gallons was eliminate in 2008.
(c) Effective 2008, the commercial and hotel/motel changed to a single tier rate structure for wastewater.
(d) Effective 2009, the multi-family category was eliminated.
(e) Effective 2010, the minimum bill was reduced from 2,500 to 1,500 gallons.
(f) Effective 2011, the minimum bill was reduced from 1,500 to 1,000 gallons.
(g) Effective 2012, the minimum bill was reduced from 1,000 to 500 gallons.
(h) Effective 2013, the minimum bill was reduced from 500 to 0 gallons.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

WATER AND WASTEWATER RATES (Continued)

Last Ten Fiscal Years

Wastewater Rates **Base Rate (Cont.)** (Per 1,000 Gallons)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Residential										
2,500 to 10,500	$ 3.84	$ 3.84	$ 3.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,500 to 13,000	N/A	N/A	N/A	$ 3.84	$ 3.84	N/A	N/A	N/A	N/A	N/A
1,000 to 13,000	N/A	N/A	N/A	N/A	N/A	$ 3.84	$ 3.84	$ 4.09	$ 4.84	$ 5.84
All over 13,000	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge	No Charge
Multi-Family										
2,500 to 10,500	$ 3.84	$ 3.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All over 13,000	No Charge	No Charge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial										
All Over 2,500	N/A	$ 3.67	$ 3.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Over 1,500	N/A	N/A	N/A	$ 3.84	$ 3.84	N/A	N/A	N/A	N/A	N/A
All Over 1,000	N/A	N/A	N/A	N/A	N/A	$ 3.84	$ 3.84	$ 4.09	$ 4.84	$ 5.84
2,500 to 27,500	$ 3.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Next 45,000	3.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Next 75,000	2.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Next 75,000	2.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Next 75,000	2.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Hotel/Motel										
All Over 1,500	N/A	$ 3.84	$ 3.84	$ 3.84	$ 3.84	N/A	N/A	N/A	N/A	N/A
All Over 1,000	N/A	N/A	N/A	N/A	N/A	$ 3.84	$ 3.84	$ 4.09	$ 4.84	$ 5.84
2,500 to 13,000	$ 3.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All over 13,000	No Charge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Notes:
(a) Increases rates must be approved by the Board of Commissioners.
(b) The water rate tier of all over 75,000 gallons was eliminate in 2008.
(c) Effective 2008, the commercial and hotel/motel changed to a single tier rate structure for wastewater.
(d) Effective 2009, the multi-family category was eliminated.
(e) Effective 2010, the minimum bill was reduced from 2,500 to 1,500 gallons.
(f) Effective 2011, the minimum bill was reduced from 1,500 to 1,000 gallons.
(g) Effective 2012, the minimum bill was reduced from 1,000 to 500 gallons.
(h) Effective 2013, the minimum bill was reduced from 500 to 0 gallons.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

TEN LARGEST CUSTOMERS

Current Fiscal Year and Nine Years Ago

		FY 2016		FY 2007	
Customer	Type of Business	(a) Total Annual Sales	Percentage of Total Sales	(a) Total Annual Sales	Percentage of Total Sales
Parkwest Hospital	Medical	$ 361,604	1.70 %	$ 173,383	1.66 %
Sunchase Apartments	Rental Real Estate	260,975	1.23	158,652	1.52
Woodlands West Apartments	Rental Real Estate	288,629	1.36	173,383	1.66
Brendon Park Apartments	Rental Real Estate	177,482	0.84	89,081	0.85
Country Club Apartments	Rental Real Estate	180,561	0.85	117,937	1.13
Cedar Bluff Apartments	Rental Real Estate	149,829	0.71	87,308	0.84
Holiday Inn - Cedar Bluff Rd.	Hospitality	136,476	0.64	82,860	0.79
Warren House Apartments	Rental Real Estate	113,154	0.53	74,990	0.72
Hampton Inn - Cedar Bluff Rd.	Hospitality	78,999	0.37	52,666	0.50
Tennessee Veterans Home	Medical	64,199	0.30	N/A	N/A
Knox County Housing Authority	Rental Real Estate	N/A	N/A	45,964	0.44
Total		$ 1,811,908	8.54 %	$ 1,056,224	9.68 %

Note: (a) Sales include only water and wastewater net revenues.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

OUTSTANDING DEBT PER CUSTOMER

Last Ten Fiscal Years

Fiscal Year	Revenue Bonds	Notes Payable	Total (a)	Number of Customers (b)	Outstanding Debt per Customer
2007	$ 39,825,115	$ 1,700,000	$ 41,525,115	22,524	$ 1,844
2008	37,880,936	1,700,000	39,580,936	23,099	1,714
2009	36,415,147	1,700,000	38,115,147	23,449	1,625
2010	35,664,823	2,458,343	38,123,166	25,117	1,518
2011	69,699,187	3,790,530	73,489,717	25,368	2,897
2012	68,851,141	3,784,222	72,635,363	25,474	2,851
2013	67,960,277	3,695,695	71,655,972	25,743	2,784
2014	67,024,542	3,248,347	70,272,889	26,347	2,667
2015	66,392,971	3,140,714	69,533,685	26,139	2,660
2016	75,401,917	3,039,906	78,441,823	26,555	2,954

Notes: (a) Outstanding debt is net of unamortized bond premiums and discounts.
(b) Number of customers is based upon water customer billing units.
(c) No debt to personal income ratio is shown because personal income for the District's service area is not available.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PLEDGED REVENUE COVERAGE

Last Ten Fiscal Years

Fiscal Year	(a) Gross Revenues	(b) Operating Expenses	Net Revenues Available for Debt Service	Debt Service Requirements Principal	Debt Service Requirements (c) Interest Paid	Debt Service Requirements Total	Coverage Ratio
2007	$ 12,776,854	$ 7,284,963	$ 5,491,891	$ 1,117,980	$ 1,806,377	$ 2,924,357	1.88
2008	14,557,107	7,961,297	6,595,810	1,383,206	2,441,758	3,824,964	1.72
2009	13,536,061	8,165,479	5,370,582	856,893	2,347,530	3,204,423	1.68
2010	13,348,152	8,162,823	5,185,329	1,110,082	1,348,672	2,458,754	2.11
2011	14,558,877	8,626,644	5,932,233	813,327	2,034,247	2,847,574	2.08
2012	17,062,739	9,855,798	7,206,941	853,326	2,477,826	3,331,152	2.16
2013	17,775,859	10,374,648	7,401,211	894,932	1,647,020	2,541,952	2.91
2014	19,076,456	9,882,078	9,194,378	940,015	1,637,920	2,577,935	3.57
2015	21,092,830	10,526,628	10,566,202	636,852	1,995,094	2,631,946	4.01
2016	23,205,213	11,265,332	11,939,881	1,017,926	2,536,212	3,554,138	3.36

Notes:
(a) Includes operating revenues, interest income received less accretion and cash contributions.
(b) Does not include depreciation expense.
(c) Interest includes interest paid, paying agent's fees and service charges net of capitalized construction period interest.
(d) Does not include notes payable.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

DEMOGRAPHIC AND ECONOMIC STATISTICS (b)

Last Ten Calendar Years

Calendar Year	Population (c)	Personal Income (Thousands of Dollars) (d)	Per Capita Personal Income	Unemployment Rate (e) County	Unemployment Rate (e) State
2006	411,967	$ 14,140,692	$ 33,963	4.5 %	4.5 %
2007	416,352	15,201,428	34,180	3.4	4.7
2008	430,019	15,666,206	34,696	4.8	6.4
2009	435,725	15,371,687	35,278	8.0	10.5
2010	432,226	15,222,567	35,219	7.0	9.5
2011	436,104	16,961,829	38,894	6.9	9.2
2012	440,725	18,149,825	41,127	6.3	8.0
2013	441,311	18,466,333	41,533	5.6	7.9
2014	448,664	19,297,297	43,012	5.7	6.6
2015	453,519	N/A (a)	N/A (a)	4.8	5.6

Notes: (a) N/A = Data not available.
(b) Demographic and economic information is for Knox County, Tennessee. This information for the District's service area is not available.
(c) Population – U.S. Bureau of the Census.
(d) Income – Bureau of Economic Analysis, U.S. Department of Commerce.
(e) Unemployment Rates – Tennessee Department of Labor and Workforce Development.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

PRINCIPAL EMPLOYERS

Current Calendar Year and Nine Years Ago

		2016		2007	
Employer (a)	Industry	Number of Employees	% of Total MSA Employees (b)	Number of Employees	% of Total Knox County Workforce
Covenant Health	Health Care	10,304	4.51 %	8,664	2.56 %
Knox County Schools	Education	7,241	3.17	7,860	2.32
The University of Tennessee	Education	6,609	2.89	8,447	2.49
Wal-Mart Stores, Inc.	Retail Store	5,951	2.60	4,472	1.32
University Health Systems	Health Services	4,941	2.16	3,367	0.99
Tennova Healthcare	Health Care	3,997	1.75	3,529	1.04
K-VA-T Food Stores	Retail Grocery	3,913	1.71	3,416	1.01
Knox County	Government	2,952	1.29	2,974	0.88
State of Tennessee	Government	N/A	N/A	3,733	1.10
Team Health Holdings	Health Care	2,015	0.88	N/A	N/A
ET Children's Hospital	Health Care	2,000	0.88	N/A	N/A
U.S. Dept. of Energy (c)		N/A	N/A	11,943	3.52
Total		49,923	21.84 %	58,405	17.23 %

Notes: (a) Only Knox County presented.
(b) The Knoxville – Knox County MSA consists of six counties: Anderson, Blount, Knox, Loudon, Sevier, and Union.
(c) After FY 2007 the U.S. Department of Energy operations were contracted to several different companies.

Source: Greater Knoxville Chamber Partnership

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

NUMBER OF EMPLOYEES BY ACTIVITY

Last Ten Fiscal Years

WATER	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Water Plant Operations	7	7	7	7	7	7	7	9	9	10
Water Plant Maintenance	2	2	2	2	2	2	2	2	2	2
Water Systems Maintenance	12	12	12	13	12	12	12	14	13	16
	21	21	21	22	21	21	21	25	24	28
SEWER										
Sewer Plant Operations	4	4	4	4	2	2	2	2	3	3
Sewer Plant Maintenance	5	7	7	7	8	8	8	9	10	9
Sewer Systems Maintenance (CMOM)	11	12	13	13	16	16	16	12	13	11
	20	23	24	24	26	26	26	23	26	23
ENGINEERING/ INSPECTION/CONSTRUCTION										
Engineering	1	1	1	1	1	1	1	1	1	1
Inspections	2	3	2	2	2	2	2	1	2	2
Construction	1	1	1	1	1	1	1	2	2	2
	4	5	4	4	4	4	4	4	5	5
ADMINISTRATION										
Billing/Customer Service	6	6	6	6	6	6	6	7	7	8
Meter Reading	5	4	4	3	2	2	2	2	2	3
Human Resources	1	1	1	1	1	1	1	1	1	1
Finance & Accounting	1	1	1	1	1	1	1	1	1	1
Executive Administration	2	2	2	2	2	2	2	2	2	2
	15	14	14	13	12	12	12	13	13	15
TOTAL EMPLOYEES	60	63	63	63	63	63	63	65	68	71

Source: The District’s payroll records.

THE WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

ANNUAL WASTEWATER PLANT FLOWS AND CAPACITY IN MILLIONS OF GALLONS

Last Ten Fiscal Years

Fiscal Year	Annual Wastewater Plant Flow	Annual Design Flow	Unused Plant Capacity	Percent of Plant Utilization
2007	1,201.53	1,460.00	258.47	82.3
2008	1,130.71	1,460.00	329.29	77.4
2009	1,310.83	1,460.00	149.17	89.8
2010	1,484.55	1,460.00	(24.55)	101.7
2011	1,432.23	1,460.00	27.77	98.1
2012	1,524.81	1,460.00	(64.81)	104.4
2013	1,327.64	1,460.00	132.36	90.9
2014	1,334.20	1,460.00	125.80	91.4
2015	1,312.59	1,460.00	147.41	89.9
2016	1,489.60	1,460.00	(29.60)	102.0

Note: Flows expressed in millions of gallons.

Source: Monthly operating reports to the Tennessee Department of Environment and Conservation.

WEST KNOX UTILITY DISTRICT OF KNOX COUNTY

OPERATING AND CAPITAL INDICATORS

Last Ten Fiscal Years

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Area in Square Miles:	72	72	72	72	72	72	72	72	72	72
Water System:										
Miles of Water Mains	355	366	368	378	383	384	387	389	390	389
Number of Treatment Plants	2	2	2	2	2	2	2	2	2	2
Number of Service Connections	19,347	19,922	20,225	21,222	21,318	21,427	21,696	22,264	22,800	23,429
Number of Fire Hydrants	1,011	1,013	1,195	1,195	1,195	1,195	1,195	1,195	1,354	1,373
Daily Average Consumption in Gallons	5.73 million	6.0 million	5.65 million	4.90 million	5.39 million	5.54 million	4.84 million	5.19 million	5.7 million	5.9 million
Maximum Daily Capacity of Plants in Gallons	12.48 million	12.48 million	12.48 million	12.48 million	12.48 million	12.48 million	12.48 million	18.00 million	18.00 million	18.00 million
Wastewater System:										
Miles of Sanitary Sewers	225	236	246	260	264	276	280	282	286	289
Number of Treatment Plants	1	1	1	1	1	1	1	1	1	1
Number of Service Connections	14,767	15,369	15,565	16,418	16,587	16,843	17,131	17,671	18,204	18,691
Daily Average Treatment in Gallons	3.29 million	3.10 million	3.59 million	4.07 million	3.92 million	4.18 million	3.64 million	3.66 million	3.60 million	3.60 million
Maximum Daily Capacity of Treatment Plant in Gallons	4 million	4 million	4 million	4 million	4 million	4 million	4 million	4 million	4 million	4 million

Note: During 2014 the District completed its upgrade of the Daugherty Water Treatment Plant.

Source: Various water and wastewater monthly operational reports and engineering records.

COMPLIANCE SECTION

PARSONS & WRIGHT

CERTIFIED PUBLIC ACCOUNTANTS

Joe Savage
Marie I. Niekerk
Josh Stone
Earl O. Wright - 1988 - 2002

Stephen J. Parsons - Retired
Rebecca Hutsell
Sharon Conder
William R. Scandlyn - 1988 - 1999

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Board of Commissioners
The West Knox Utility District of Knox County
Knoxville, Tennessee

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of The West Knox Utility District of Knox County ("the District"), which comprise the proprietary fund balance sheet and the statement of fiduciary net position – pension trust fund, as of June 30, 2016, and the related proprietary fund statement of revenues, expenses, and changes in net position and cash flows and the statements of changes in fiduciary net position – pension trust fund for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated November 10, 2016.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. However, as described in the accompanying Schedule of Findings and Responses, we identified certain deficiencies in internal control that we consider to be material weaknesses.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the deficiencies described in the accompanying Schedule of Findings and Responses referenced as items 2015-001 and 2015-002 to be material weaknesses.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audits, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

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The District's Response to Findings

The District's responses to the findings identified in our audit are described in the accompanying Schedule of Findings and Responses. The District's responses were not subjected to the auditing procedures applied in the audits of the financial statements and, accordingly, we express no opinion on them.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Parsons& Wright

Parsons & Wright
Certified Public Accountants
Kingston, Tennessee

November 10, 2016

2015-001 Timely Entry of Board Authorized Water and Wastewater Rate Adjustments

Criteria or Specific Requirement – Board authorized water and wastewater rate adjustments are effective July 1 of the fiscal year.

Condition – It was noted that board approved rate adjustments effective July 1, 2015, were not timely updated in the accounting and billing software by the District's service provider. This resulted in customers being billed based on rates effective from the previous fiscal year for the first 3 billing cycles of the fiscal year.

Cause and Effect – Communications made by the District to the software provider were misplaced causing rates to not be timely updated in the accounting and billing systems.

Recommendation – We recommend that management develop a process to ensure timely communication and system entry of board authorized rate adjustments with the District's software provider. These procedures should include a detailed review of service rates in the accounting and billing systems.

Management's Response – Management concurs with the facts of the finding and will implement procedures to ensure timely communication with the software provider and ensure accurate entry in the accounting and billing systems.

2015-002 Subsidiary Ledger Reconciliation and Rollforward

Criteria or Specific Requirement – The District's financial reporting software package should maintain accurate subsidiary ledger records to ensure accurate reconciliation and Rollforward of balances and amounts. In addition, historical information should remain unaltered when accessed in subsequent periods.

Condition – In the current year, the District's financial reporting software package was unable to provide accurate accounts receivable and accounts payable aging details. These subsidiary ledgers also did not agree to the general ledger control accounts. In addition, historical balances in the general ledger reporting system had changed from amounts shown in prior years and the general ledger account balances did not balance or Rollforward properly.

Cause and Effect – The District's information technology service provider has made changes to the programs and routines which caused the errors in the financial reporting software packages, and they were unable to reverse and correct the errors their actions caused. Because accurate reporting could not be obtained from the system, extensive research and reconciliation work was required by persons other than the service provider.

Recommendation – We recommend that the District pursue alternative solutions for their financial reporting software needs. This alternative solution should include appropriate controls and testing of changes to the programs and routines in a test environment prior to their being made to the District's live production systems. Management should also develop a process for reconciling the detail subsidiary ledgers on a monthly basis to ensure that the detail subsidiary balances agree to the general ledger and the general ledger balances correctly rollforward from the beginning period balances.

Management's Response – Management concurs with the facts of the finding and is currently considering and evaluating alternate software packages to be selected within the next fiscal year. Management will require software provider to test changes to the software prior to implementation. Management will attempt to reconcile subsidiary ledgers to the general ledger.

ANDERSON COUNTY WATER AUTHORITY
SCHEDULE OF DISPOSITION OF PRIOR YEAR FINDINGS
JUNE 30, 2016

Financial Statement Findings

Finding Number	Finding Title	Status
2015-001	Timely Entry of Board Authorized Water and Wastewater Rate Adjustments	Repeated
2015-002	Subisidiary Ledger Reconciliation and Rollforward	Repeated
2015-003	EPA Violations (original finding #2011-005)	Corrected

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APPENDIX E

DISTRICT ENGINEERING REPORT

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ENGINEERING REPORT

FOR

WEST KNOX UTILITY DISTRICT

ENGINEERING EVALUATION OF WASTEWATER PLANT NEEDS FOR CURRENT AND FUTURE FLOWS WITH RECOMMENDED FACILITIES

JANUARY 2014

Prepared by
GRW ENGINEERS, INC.

ENGINEERING REPORT

FOR

WEST KNOX UTILITY DISTRICT

ENGINEERING EVALUATION OF WASTEWATER PLANT NEEDS FOR CURRENT AND FUTURE FLOWS WITH RECOMMENDED FACILITIES

JANUARY 2014

PREPARED BY
GRW ENGINEERS, INC.

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WEST KNOX UTILITY DISTRICT
ENGINEERING EVALUATION OF WASTEWATER PLANT NEEDS
FOR CURRENT AND FUTURE FLOWS
JANUARY 2014

I. PURPOSE OF REPORT

A. General Information

Since 1998, the staff of GRW Engineers, Inc. (GRW) has been working with the West Knox Utility District (WKUD) to evaluate the future wastewater treatment needs of the utility. Originally, GRW was directed to evaluate the options and recommended alternative for the existing Karn's wastewater treatment plant (WWTP) in response to a structural failure in an existing aeration basin. This evaluation led to the design and construction of the existing headworks structure, oxidation ditches and sludge holding tanks in 1999/2000 to address the immediate emergency situation.

Since the construction of that upgrade/replacement project, WKUD has experienced continued and rapid growth of its sewer system and customer base. New developments and expansion of existing developments continue to be constructed throughout the boundaries of the Utility District. During a five (5) year period (June 2003- June 2008), a noticeable increase (2,705 new sewer connections – approximately 4.3% per year) was seen throughout the District, but particularly on the west side of the Pellissippi Parkway. The number of projects approved for construction during that time proposed to add approximately 3,700 new sewer connections to the system with over 1,600 (with potential to an additional 515) of those on the west side of the Pellissippi Parkway. During the following five (5) year period (June 2009 – June 2013), the number of customers added to the sewer system was 1,762 (a growth to approximately 2.29% per year). The reduction in growth occurred when the economy was on a down turn, but the growth only dropped below 1.5% for one year in that period.

The existing collection system extended to the west side of the Pellissippi Parkway, but the majority of the gravity sewer lines are still located east of the parkway. The existing Karn's WWTP is located in the Industrial Park off Hardin Valley Road and discharges into Beaver Creek. As the areas west of the Parkway continue to be developed, the sewer collection systems being built tend to flow westward with the grade which requires pumping the collected wastewater back to the east side of the parkway for treatment at the existing Karns WWTP. Future developments in the western portions of WKUD boundaries will require new interceptor sewer lines and pump stations to collect and transport the wastewater back to the Karns treatment plant (under the current conditions).

The WKUD management and engineering staff recognized that the existing facilities of the sewer system (both collection system and treatment) would not be adequate to handle the expected flows in the near future. GRW was directed to evaluate the future needs of the WKUD sewer system for the next 20 years and make recommendations to meet these needs.

An Engineering Report (ER) was completed for WKUD in September 2006 discussing the wastewater needs of the system. This report evaluated the existing population of the service area, the existing wastewater treatment plant capabilities/capacities, the areas served by the collection system, projected growth, etc., and made recommendations to meet the future needs. Several alternatives were evaluated in the 2006 report, with the conclusion that the existing facility was very limited in its ability to be expanded with discharge at the existing location; the recommended alternative was for the construction of a new WWTP west of the Pellissippi Parkway with a new discharge directly into the main channel of the Clinch River (Melton Hill Reservoir). The report originally recommended that a smaller plant on the western side of the Parkway be constructed and operated with plans to expand it in the future to eliminate the existing Karns WWTP. All flows would be pumped to the expanded treatment plant when the Karns plant is eventually decommissioned.

At the direction of WKUD, GRW proceeded with preparing an application requesting a new NPDES permit for a new discharge into the Clinch River at approximate river mile 28. As a part of the permit review process, the Tennessee Department of Environment and Conservation (TDEC) required that reservoir modeling services be provided to demonstrate the impact on the receiving body by the proposed discharge. TDEC also required consultations with the Tennessee Valley Authority (TVA) to discuss the proposed discharge and the impact, if any, on TVA's operation of Melton Hill Reservoir. The water quality modeling demonstrated that the relocated discharge would have an overall positive impact on the water quality of the Melton Hill Reservoir due primarily to the depth of the proposed discharge point and the location of the discharge into the lower strata of the large body of water in the reservoir compared to the current discharge into a shallow stream which flows onto the surface of the reservoir.

Due to several requests for additional information and reevaluations by TDEC, the process to obtain a permit to discharge took over 4 years. The new discharge permit from TDEC was issued and became effective on May 1, 2013. TDEC issued the permit contingent upon the elimination of the existing Karns WWTP discharge into Beaver Creek when the new discharge into the Clinch River is constructed. With this requirement in place, the initial plant capacity for the proposed WWTP will be designed for a daily flow rate of 6.0 MGD (to eliminate the Karns 4 MGD WWTP and account for increased growth) with a peak flow condition of 15.0 MGD to account for wet weather flow conditions. The discharge permit issued by TDEC is for a 10.0 MGD average daily discharge which should handle the proposed initial flow rates and any expansion of the facility during the first 20 years of operation.

The total number of sewer customers in June 2006 was 14,301 and has increased to 17,131 as of June 2013. This is a customer growth of 2,830 or approximately 20% over the last seven (7) years (averaging approximately 2.86% per year). Since June

2013 another 137 connections have been added to the collection system on the west side of the parkway and 47 on the east side for a total of 184 connections with the completion of three development projects. Another 552 connections are presently under construction in five (5) different projects. The west side projects (two) have a total of 286 new sewer connections and the east side projects have a total of 266 new connections. Another four (4) projects are under review by WKUD staff that total another 339 sewer connections (only 30 on the east side of the Parkway). If all of these connections (1,075) are made to the system by June 2014, the growth rate could be as high as 6.3% in a one year period. It is our opinion that total build out will not occur that fast, but the growth is expected to increase approximately 3% by the end of June 2014. If the economy continues to improve, growth of the sewer system in the WKUD service area is expected to continue to be above 3% for the foreseeable future. Thus, the total number of sewer services should be near 20,000 in approximately 5 years (June 2018).

Assuming a flow usage rate of approximately 80 GPD/person and 2.5 persons per connection, the existing Karn's WWTP flow capacity of 4.0 MGD will be exceeded when the population served reaches approximately 50,000 persons or about 20,000 services. Based on the growth rates experienced recently, the existing WWTP would need to have been expanded or replacement completed within the next 5 years to handle expected future growth and the accompanying increased organic loading to the facility. Due to infiltration and inflow getting into the collection system, the rated hydraulic capacity of the existing plant has already been exceeded in 3 of the past 4 years (2010, 2012 and 2013); however, efficient and effective operation of the treatment plant by operating personnel has resulted in the facility meeting both concentration based (mg/l) and mass loading (lb/day) effluent limits of the discharge permit in all other parameters thus avoiding official discharge violations.

B. Scope of this Report

This report summarizes the different treatment alternatives considered for the proposed wastewater treatment plant. Detailed evaluations of several different processes were completed by GRW Engineers and discussed with WKUD staff. The evaluations examined the comparative capital costs for construction and equipment along with the operation and maintenance expenses over a 20 year period. The various costs associated with each alternative were included to compare the probable present worth value factoring in general construction, power usage, operation, maintenance and equipment replacement needs of the different alternatives. Using this procedure, the total comparative costs to construct and operate the facility over a 20 year period is considered rather than basing the decision on just the initial construction costs.

Discussions with both management and operating personnel were included as part of the evaluation process to present preliminary results and to factor in the acceptability and reliability of the various available alternatives. These discussions resulted in the general conclusion that multiple processes could meet the treatment and operational requirements and that the present worth cost comparisons should be the primary determining factor in selecting the recommended processes for this facility. The general results of these evaluations are presented in the remainder of this report along with the probable construction costs of the recommended treatment facility, the required wastewater transportation facilities and the treated effluent outfall facilities.

II. SUMMARY OF TREATMENT ALTERNATIVES EVALUATED

A. <u>General Discussion of Evaluations</u>

The NPDES permit issued to WKUD in March 2013 (effective May 1, 2013) indicated that the new treatment plant would need to meet the following effluent standards:

Parameter	Average monthly	Weekly Average	Daily Minimum	Daily Maximum
$CBOD_5$	10 mg/l	15 mg/l	-	20 mg/l
Ammonia Nitrogen	5.0 mg/l	7.5 mg/l	-	10 mg/l
Suspended Solids	30 mg/l	40 mg/l	-	45 mg/l
E-coli	126 col/100 ml	-	-	487 col/100 ml
Dissolved Oxygen	-	-	6.0 mg/l	-
Settleable solids	-	-	1.0 ml/l	-
pH	-	-	6.0	9.0
Total Nitrogen (TN)				Report (qtr avg)
Total Phosph. (TP)				Report (qtr avg)

Meeting the above standards along with reducing the amount of energy and chemical usage needed to meet these standards were considered to be a critical component of these evaluations. Thus, the considered biological treatment alternatives were required to be initially designed with an anoxic zone or anoxic cycle. This zone (cycle) will be used to recover alkalinity lost in the nitrification process, condition the mixed liquor volatile suspended solids (MLVSS – microorganisms) so that nitrogen and phosphorus can be reduced from the effluent without the use of chemicals, thus enhancing overall treatment levels and reducing the amount of energy used in the biological process.

Discussions with TDEC about future effluent standards that may be added to the permit in the next 20 years indicated that total nitrogen and total phosphorus limits would probably be imposed within the next 5 to 10 years. Thus, the alternatives proposed were also required to be capable of meeting more stringent effluent limits than the permit levels without additional tankage, only modifications in the method of operating the process or the addition of supplemental equipment to the proposed tankage.

Several different types of biological processes were evaluated which would be capable of meeting the present and anticipated future effluent standards. Requests for proposals (RFP's) were sent to several different equipment manufacturers/suppliers in June 2013. This request outlined several different treatment processes that were to be evaluated to meet the effluent standards shown below which are more stringent than the issued permit.

Possible Future Effluent Limits

Parameter	Average monthly	Weekly Average	Daily Minimum	Daily Maximum
$CBOD_5$	5 mg/l	7.5 mg/l	-	10 mg/l
Ammonia Nitrogen	1 mg/l	2.5 mg/l	-	5 mg/l
Suspended Solids	5 mg/l	10 mg/l	-	25 mg/l
E-coli	126 col/100 ml	-	-	487 col/100 ml
Dissolved Oxygen	-	-	6.0 mg/l	-
Settleable solids	-	-	1.0 ml/l	-
pH	-	-	6.0	9.0
Total Nitrogen (TN)	5 mg/l	7.5 mg/l	-	10 mg/l
Total Phosph. (TP)	1 mg/l	2 mg/l	-	3 mg/l

Responses were to include recommended process basin sizes and requirements, proposed equipment costs, power and operating costs, equipment maintenance and replacement requirements and costs, etc.

B. <u>Biological Processes Evaluated</u>

Requests for proposed alternatives allowed for three basic categories of biological processes as follows: (1) sequencing batch reactor (SBR); (2) advanced oxidation ditches (OD) with anoxic zones, clarifiers and return sludge pumping station; and (3) membrane bio-reactors (MBR). Information was provided by different manufacturers/suppliers as described above. Physical facilities (treatment basins, enclosures, buildings, etc.) were sized in accordance with the recommendations of the manufacturers; equipment costs, installation requirements, etc., were included to allow for development of the comparative construction costs which include the basic components specific to that unit for relative comparison to the other proposed units and processes. More complex and detailed construction cost estimates including all required components for the recommended facility are presented later in this report. Operating and power costs, maintenance costs, replacement costs, etc., were calculated to be included in the 20 year present worth costs using an interest rate of 3.5%. The breakdown of the proposed alternatives evaluated for each biological process type was as follows:

1. SBR's (7 different alternatives received):

   The SBR alternative uses the same tankage for biological treatment, settling/decanting and eliminates the need for separate clarifiers and return sludge pumping. Because of the batch sequencing nature of this process, the decant (effluent discharge) rates are higher than the influent flow rates; therefore, the final ranking and costs of this process will also account for effluent flow equalization and effluent filters. Programming of the various cycle times of the treatment sequences allows the process to operate under anticipated loading and flow conditions while still meeting the required discharge parameters.

   The comparative construction costs of the various proposals associated with this type of treatment alternative including SBR, equalization basin (EQ), and effluent filters ranged from approximately $7.1 million to $12.3 million with comparative construction rankings of 1, 2, 3, 4, 5, 11, and 13; factoring in the power, operating, maintenance and replacement costs resulted in total annual costs ranging from $154,000 to $483,000 with annual costs rankings of 1, 2, 3, 5, 6, 9, and 13. A table is presented below which summarizes the final rankings.

2. OD's (5 different alternatives received):

   This type of biological treatment requires separate tanks for biological treatment and clarification along with facilities and equipment for returning the settled sludge back to the aeration basins. Construction costs for these alternatives included the ditch, clarifiers (6 different clarifier manufactures evaluated with average costs of approximately $2.4 million) and the return sludge pumping facilities (estimated at $0.92 million) to compare it with the other alternatives. The comparative construction costs associated with this type of treatment ranged from approximately $8.7 million to $12.6 million with comparative construction rankings of 4, 7, 10, 11, and 14. Factoring in the power, operating, maintenance and replacement costs resulted in total annual costs ranging from $254,000 to $461,000 with annual costs rankings of 6, 7, 8, 9, and 12. A table is presented below which summarizes the final rankings.

3. MBR's (2 different alternatives received):

   Two different membrane types were evaluated; a flat plate design and a hollow fiber design. The membranes allow the aeration basins to be reduced in size and operated with a higher MLVSS number, because settling issues are eliminated by using the membranes to remove the water (effluent) from the basins. Using membranes also eliminates the need to filter the settled wastewater prior to discharging. The comparative construction cost of these two types of membranes was approximately $10.0 and $12.1 million with comparative construction rankings of 8 and 12; factoring in the replacement and power costs resulted in total annual costs of $6.1 and $7.2 million with annual cost rankings of 10 and 14. A table is presented below which summarizes the final rankings.

4. SUMMARY OF ALTERNATIVES

The table below summarizes the alternative analyses results with indications of the type of treatment proposed by each manufacturer (individual manufacturers have not been identified in this report). The annual costs include operating and power costs, maintenance costs, replacement costs, etc. The annual costs were then converted to the 20 year present worth costs using an interest rate of 3.5% which gives a present worth factor of 14.2124. The comparative construction cost was then added to the present worth of the annual costs to give the total comparative present worth as shown below:

Present Worth Ranking	Process	Comparative Construction Costs	Comparative Construction Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
1	SBR/EQ/Filters	$7,926,000	2	$153,940	$2,187,860	1	$10,113,860
2	SBR/EQ/Filters	$8,428,800	3	$175,540	$2,494,420	2	$10,923,220
3	SBR/EQ/Filters	$8,819,500	6	$212,710	$3,022,610	3	$11,842,110
4	SBR/EQ/Filters	$8,724,100	5	$245,130	$3,483,300	5	$12,207,400
5	SBR/EQ/Filters	$7,071,400	1	$432,110	$6,140,290	11	$13,211,690
6	SBR/EQ/Filters	$9,993,113	9	$239,150	$3,398,320	4	$13,391,433
7	OD/Clarifiers/RSPS/Filters	$9,942,800	7	$253,687	$3,604,890	6	$13,547,690
8	OD/Clarifiers/RSPS/Filters	$8,704,500	4	$368,100	$5,230,700	9	$13,935,200
9	OD/Clarifiers/RSPS/Filters	$9,995,200	10	$281,820	$4,004,660	8	$13,999,860
10	OD/Clarifiers/RSPS/Filters	$10,131,600	11	$281,330	$3,997,700	7	$14,129,300
11	MBR	$9,965,600	8	$427,060	$6,068,520	10	$16,034,120
12	SBR/EQ/Filters	$12,262,200	13	$482,680	$6,858,880	13	$19,121,080
13	OD/Clarifiers/RSPS/Filters	$12,612,700	14	$460,500	$6,543,710	12	$19,156,410
14	MBR	$12,078,100	12	$505,630	$7,185,000	14	$19,263,100

Fourteen (14) different submittals were made on the biological processes. The evaluations performed by GRW from the different manufacturer information proposals indicated that 6 of the SBR submittals were comparatively more economical to construct and operate than the alternatives represented in the other two (2) types of treatment. The SBR units using fine bubble diffusers fixed to the bottom of the tank were both economical to construct (2 and 3 in ranking) and to operate (1 and 2 in ranking) and had the lowest total comparative present worth costs (1 and 2 in ranking). Two (2) of the SBR alternatives proposed using a jet aeration system for aeration and mixing were ranked 5th & 6th for construction costs, ranked 3rd and 5th for annual costs, and ranked 3rd & 4th for total present worth cost. Utilizing the jet aeration method of aeration and mixing would add approximately $1.5 million to the 20 year costs of the facility based on the averages of the four alternatives. Therefore, it is recommended that the new treatment plant be designed around the SBR treatment process utilizing a fine bubble, fixed header aeration system.

C. Influent Screens

The existing Karns WWTP uses externally fed drum screens to remove non-organic solids (wood, plastic, paper, rocks, cloth, etc.). These units have served the utility for several years, but have operational problems during extreme cold temperatures and inclement weather since they are mounted outdoors. The internally fed drum screen does not have the same problems during cold and inclement weather and can be insulated for protection from freezing temperatures. The recommendation for the proposed facility is for fine screens on the influent flow utilizing the internally fed drum screens. These units may be placed in an enclosed space to provide for added protection from extreme weather conditions and to allow for odor control measures to be more readily applied.

Four (4) manufacturers submitted proposals for this type of screen and were evaluated. The range of comparative construction costs varied from $793,000 to $1,182,000 with total present worth costs ranging between $1,066,000 and $1,412,000 as shown in the table below. One of the units was removed from consideration due to some undesirable design features, but the three (3) remaining units were considered acceptable for use at the new plant. The final design of the headworks structure will take into consideration the layout requirements of the different units and provide flexibility which should allow for multiple manufacturers to offer final proposals for installation.

Present Worth Ranking	Process	Comparative Construction Costs	Compar. Construct. Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
~~1*~~	~~Drum Screen A~~	~~$792,250~~	~~1~~	~~$19,201~~	~~$272,896~~	4	~~$1,065,146~~
2	Drum Screen B	$890,000	2	$17,980	$255,541	3	$1,145,541
3	Drum Screen C	$1,025,000	3	$14,948	$212,443	1	$1,237,443
4	Drum Screen D	$1,181,795	4	$16,205	$230,316	2	$1,412,111

*Drum screen "A" was not considered due to certain undesirable design features of the unit

D. Grit Removal

Presently, no grit removal facilities are provided for the wastewater stream at the existing Karns treatment facility. Discussions with WKUD staff have indicated that significant problems with grit accumulation are experienced, so the proposed facility should be designed to include grit removal. Proposals submitted for grit removal included 5 different manufacturers with processes generally as follows:

1. Three (3) mechanically stirred vortex units;
2. One (1) static centrifugal flow unit; and
3. One (1) aerated grit chamber.

The range of comparative construction costs varied between approximately $392,000 and $823,000 with the vortex units being the most economical to construct and operate. The aerated unit also included equipment and tankage for removing grease, which made it approximately 60% higher than the other units evaluated. Operating staff have indicated that WKUD's FOG program has prevented oils and grease from being an ongoing operational issue at their facility and that the additional costs are not justified for the proposed facility. The table below summarizes the alternative analyses results with indications of the type of treatment proposed by each manufacturer.

Present Worth Ranking	Process	Comparative Construction Costs	Compar. Construct. Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
1	Mech Vortex A*	$392,093	1	$11,333	$161,071	1	$553,164
2	Mech Vortex B	$496,990	2	$12,485	$177,439	3	$674,429
3	Mech Vortex C	$521,627	3	$11,534	$163,932	2	$685,559
4	Static Centrifug.	$628,494	4	$12,811	$182,077	4	$810,571
5	Aerated Grit/Grea.	$822,500	5	$14,464	$205,568	5	$1,028,068

*Alternative A does not handle the peak flow of 15 MGD with 1 unit out of service (additional information has been requested for further consideration in final design).

The mechanically stirred vortex units have been used for years by several municipalities in Tennessee and were deemed to be the units of choice by consensus opinion. The design of the proposed WWTP will include vortex grit removal in the headworks structure downstream from the influent drum screens.

E. Filtering Treated Effluent

The current suspended solids permit limits could probably be met without effluent filtration; however, the filters provide an additional level of treatment to guard against minor biological process settling issues and will definitely be required to meet the anticipated future phosphorus limits for either the SBR or OD treatment systems being considered. Effluent filters also help to maintain compliance with the NPDES permit by removing insoluble BOD_5 and phosphorus (anticipated future phosphorus limits) associated with suspended solids.

As effluent is decanted from the SBR basins in batches and not continuously as would be done with an OD system with clarifiers, an equalization basin will be provided in the design to reduce the peak flow going to the filters and disinfection process units which follow. (Note: during evaluation of the SBR units, an equalization basin was added to the total costs when comparing it with the OD with clarifier alternatives).

Ten (10) proposals for two (2) different types of filters (sand filters and disk filters) were received for evaluation:

1. The first type was the sand filter which has been used by water and wastewater treatment plants for over 50 years. Four (4) different manufacturers submitted proposals for the sand filter alternatives. Two (2) of these manufacturers introduce flows from the bottom and take the filtrate flow (effluent) from the top with continuous cleaning of the sand during operation using compressed air. The other two (2) manufacturers introduce the wastewater at the top of the filter and take off the filtered effluent from bottom tiles. The construction cost for these types of filters were the highest ranking based on present worth costs (7 – 10).

   The advantage of using this type filter would allow biological treatment in the filter to remove nitrogen from the effluent if the limit was below 8 mg/l. However, at this time the anticipated future total nitrogen limit for discharging into the Clinch River is expected to be approximately 10 mg/l which can be met in the SBR tanks without the need of further reduction in the filters.

2. The second type of filter evaluated was the disk filter that was introduced into the wastewater treatment process approximately 20 years ago. This is a takeoff of the old drum micro-strainer (or micro-screen) used in the 1970's in the wastewater field using a plastic or stainless steel screen fabric. The original drums were hard to repair and damaged easily. Most of the old drum designs failed and were replaced with sand filters.

   However, the new disk filter technology has advanced significantly in the last 10 years using cloth or SS media, plastic fabric wrapped over support framing in pie sections, or perforated metal plates. These new disk filters can provide the filtration of the solids (also removes phosphorus based on its presence in the solids) that will allow meeting the anticipated future effluent standards. Six (6) different manufacturers submitted information on the disk filters. Most of the new disk filter designs use pie sections (or cassettes) that connect to a metal or plastic frame and allow operators to replace a damaged cassette quickly without taking down the entire disk structure for days at a time. The cassettes vary in size and number from as few as 8 per disk to as many as 32 (16 per side) per disk.

Two (2) of the designs introduce the influent flow from the outside and pull the filter flow from the inside of the disk. This type of design allows the solids filtered out of the wastewater to settle in the tankage that the filters are housed in. This requires some type of suction removal system that collects the solids off the disk media and also from the bottom of the tank. Additional pumping maintenance is required with this type of design.

The remaining four disk filter designs introduce the flow from the inside of the disk and take-off the filtered effluent from the outside of the disks. This type of design contains the solids inside the disk and cleaning of the disk is done using nozzle spray wash from the outside of the disk pushing the solids back into the disk interior where it is collected in troughs that convey the solids back into the WWTP influent treatment stream.

The disk filter proposals were ranked 1 – 6 for the comparative construction costs and present worth costs during the evaluation of all the filters. Two (2) of the disk filter manufacturers will not be considered for use at the proposed facility due to undesirable features of the type of design and/or cassette removal system. The remaining four (4) disk filter manufacturers will be considered in the design of this facility.

(Note: during evaluation of the biological processes, the cost associated with adding disk filters was added to the OD with clarifier alternatives and to the SBR/EQ basin alternatives to compare them with the MBR alternatives – which do not require separate filters.)

The table shown below summarizes the evaluation of the construction and annual present worth costs of the filters to arrive at the total comparative present worth cost:

Present Worth Ranking	Process	Comparative Construction Costs	Compar. Construct. Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
~~1~~	~~Disk A (cloth sock)*~~	~~$1,373,810~~	~~2~~	~~$22,922~~	~~$325,779~~	~~6~~	~~$1,699,589~~
~~2~~	~~Disk B (cloth cassette)*~~	~~$1,350,300~~	~~1~~	~~$24,717~~	~~$351,287~~	~~7~~	~~$1,701,587~~
3	Disk C (SS only)	$1,665,000	5	$13,175	$187,241	3	$1,852,241
4	Disk D (Cloth cassette)	$1,678,750	6	$18,631	$264,794	5	$1,943,544
5	Disk E (Plastic cassette)	$1,473,350	3	$43,977	$625,017	9	$2,098,367
6	Sand A (down flow)	$2,398,671	7	$7,262	$103,215	1	$2,501,885
7	Disk F (plastic cassette)	$1,548,210	4	$79,300	$1,127,044	10	$2,675,254
8	Sand B (down flow)	$2,781,133	9	$9,787	$139,093	2	$2,920,226
9	Sand C (up flow)	$2,711,541	8	$15,500	$220,293	4	$2,931,834
10	Sand D (up flow)	$2,806,748	10	$38,932	$553,323	8	$3,360,070

* Not considered due to undesirable design features.

The design of the proposed WWTP will include disk filters housed in a building following the SBR post equalization basin and prior to disinfection.

F. Disinfection of Treated Effluent

During the evaluation of treatment processes for the new WWTP, the method of disinfecting the effluent was discussed with an emphasis placed on a process that did not use chlorine. Presently the existing Karn's WWTP disinfects with chlorine (liquid bleach), but management and staff have requested that the disinfection method be changed at this new facility. Current regulations include strict chlorine residual limits (which will become even more stringent) which requires that dechlorination chemicals also be added. Balancing the chlorine feed rates for bacterial control and the dechlorination chemical feed rates for chlorine residual control while meeting the bio-monitoring requirements is very difficult. The chemicals needed to strip out the chlorine (de-chlorination) must be monitored closely by the operating staff to prevent overfeeding which results in lowering the dissolved oxygen content in the effluent. Also, as chlorine is added to the effluent to kill off harmful bacteria, compounds can sometimes form that are considered to be carcinogens.

In the late 1990's, new EPA and OSHA regulations have made the use of chlorine to disinfect wastewater a difficult challenge. More and more facilities have turned to the use of Ultra-Violet (UV) light for disinfection purposes. The NPDES permit does not specifically require the use of alternative disinfection methods, but chlorine residual limits were not included based on the assumption that methods other than chlorination would be incorporated into the design of the proposed facility.

The RFP's for the proposed facility requested UV disinfection systems that could be placed in open channels or systems that were enclosed in piping. Several of the manufacturer's that responded offered both in channel and inline piping alternatives. A total of 13 different proposals were submitted from 6 different manufacturers. The open channel design had 6 different submittals and the inline piping design had 7 submittals (two different submittals from one supplier).

The open channel design requires that channels be formed out of concrete and a covering (shed – assumed cost of $50/sq.ft. based on dimensions provided) be designed over the channels to reduce the possible growth of algae in the channels (since chlorine is not being used). The average comparative costs of the channel design alternatives was approximately $725,000.

The inline piping design requires that the units be placed inside a building; these costs were based on an assumed building cost of $125 per square foot. Area needed was based on the manufacturer's submittals. The average installed comparative construction costs of the inline piping designs were approximately $735,000. The different designs submitted included low and medium pressure UV bulbs. The initial installed costs of the medium pressure bulb systems were less than the low pressure bulb systems, but the annual operating costs were higher. The total present worth costs for the inline alternatives indicated that the low pressure systems (costing up to 25% more initially) would save over 40% in operating costs in comparison to medium and high pressure systems thus resulting in lower overall present worth costs.

Since the costs of the open channel design versus the inline piping design were very similar (depending on manufacturer), WKUD staff indicated that the inline piping designs were preferred. During design of the proposed treatment plant, housing these units in the same building that houses the effluent disk filters will be considered, which should reduce the total installed costs. The table below summarizes the UV units that were evaluated and the associated annual costs; construction costs assume a separate building to house the inline units or a shed built over the open channel units.

Present Worth Ranking	Process	Comparative Construction Costs	Compar. Construct. Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
1	Open Chan A*	$475,177	1*	$30,208	$429,328	2	$904,506*
2	Inline A	$686,200	6	$23,179	$329,423	1	$1,015,623
3	Open Chan B	$664,250	5	$32,562	$462,784	3	$1,127,034
4	Open Chan C	$758,009	9	$35,034	$497,923	5	$1,255,932
5	Inline B	$748,800	8	$35,684	$507,155	6	$1,255,955
6	Inline C Low Press.	$733,554	7	$38,822	$551,761	8	$1,285,315
7	Open Chan D	$886,057	11	$33,005	$469,085	4	$1,355,143
8	Inline D Low Press.	$906,250	12	$38,039	$540,628	7	$1,446,878
9	Inline C Med Press.	$576,498	2	$67,698	$962,154	9	$1,538,652
10	Inline E Med Press.	$624,930	4	$84,400	$1,199,527	10	$1,824,457
11	Inline F Med Press.	$869,700	10	$86,320	$1,226,815	11	$2,096,515
12	Open Chan E	$603,717	3	$153,708	$2,184,561	12	$2,788,278

*Information for this unit was insufficient; additional information was requested. Response was still insufficient and it appears that additional units would be required to meet design criteria.

G. Sludge Thickening

Discussion between WKUD staff and GRW in recent months has prompted the evaluation of thickening the sludge wasted from the recommended biological process prior to storing the sludge in a holding tank. The existing Karns WWTP has a wide range (0.5 to 0.75%) of solids concentrations being sent to the existing belt presses. The inconsistent and relatively "thin" nature of the waste sludge has caused operational and process efficiency problems with the existing dewatering equipment in that full solids loading to the units cannot be achieved.

The proposed SBR units will automatically waste sludge from the basins at the decant stage of each cycle. During normal operation, each basin will have 4 cycles per day when sludge is discharged from all four (4) basins (total of 16 times per day) for about 30 minutes at a time. Due to the periodic nature of sludge wasting, thickening the sludge to a preferred concentration of 2% to 3% solids as it is discharged from the SBR tanks will require the use automatic thickening units which can operate in an on/off manner without operator input or will require the addition of a tank for holding the sludge prior to thickening; this holding tank would then require mixing, aeration and pumping equipment.

Normally, wasted sludge would be sent to a tank that is large enough to hold the sludge until it can be dewatered. If sludge is to be thickened to the concentration discussed above, most thickening units require polymer to condition the sludge prior to thickening. Once polymer is used for thickening, the sludge would need to be held in a second holding tank for several days prior to conditioning the sludge with another polymer for dewatering. The primary option for thickening without using a polymer would be the use of a centrifuge; a centrifuge thickener was pilot tested at the Karns WWTP and was able to thicken the sludge to 3 to 4% without the use of any polymer. However, the installation of this type of equipment (2 centrifuges, feed pumps, etc.) and the supporting facilities for pre-thickening adds approximately $2,000,000 to the construction costs of the facility.

For this reason, the recommendation for this proposed facility is to construct a two compartment sludge holding tank with mixing, aeration (to keep the dissolved oxygen (D.O.) in the range of 0.5 to 2 mg/l), and decanting equipment to allow for holding and concentration of the solids to a consistent level. The decanting equipment should allow the operator to maintain a minimum sludge concentration of 0.8% (8,000 mg/l) to 1.5% (15,000 mg/l) solids. During the detailed design process, an evaluation will be made to possibly include an additional dewatering equipment unit to account for increased volume of water if the desired solids concentration cannot be reached. This alternative would be more economical than the option of separate thickening equipment and facilities.

H. Sludge Dewatering and Disposal

One of the primary goals of a WWTP is the removal of solids (both organic and inorganic) from the influent flow and the discharge of clean and NPDES permit compliant water into the receiving stream. Inorganic solids in the influent flow stream, approximately 2 mm or larger, are removed by the influent screening equipment with the remaining solids continuing on to the grit removal and biological processes for further treatment and removal. The biological process provides an environment for microorganisms to remove the organic content of the waste stream by utilizing it as the “food” needed for their growth and reproduction. The solids in the SBR tanks are a mixture of microorganisms, organic solids and inorganic solids and are referred to as mixed liquor suspended solids (MLSS). The organic material that is part of this mixture is called MLVSS (the V = volatile). The biological process is operated by maintaining a fixed amount of MLVSS and MLSS and wasting the excess solids from the basins. These excess solids (referred to as “waste sludge”) are wasted from this process into a holding tank or digester for additional treatment and disposal.

The sludge dewatering equipment and process is an integral part of the total treatment system for a WWTP and can consume a large portion of the operations staff time and efforts. Therefore, it is imperative for this component of the treatment facility to be operator friendly and have adequate capacity.

Requests for proposals on this process include four (4) different types of sludge dewatering equipment. Each type is discussed below followed by a table summarizing the construction and annual costs and present worth rankings.

1. Belt Filter Press: This equipment is similar to the equipment presently in use at the Karns WWTP which uses polymer to condition the sludge and then squeezes the sludge cake between two (2) belts to press out the excess water from the sludge.

   Five (5) different manufacturers submitted proposals for dewatering with belt presses. The comparative installation costs for these units ranged from $1.14 million to $1.76 million. The main advantages of using this type of equipment are the familiarity that the WKUD staff has in operating them and that the initial construction costs are typically lower than some of the other types of equipment.

   The disadvantages are:

   a. Must be manned when operating;
   b. Not enclosed so odor can be an issue as well as wet areas around the unit;
   c. Safety concerns since the unit is not enclosed;
   d. Belt replacement approximately every 2,000 to 2,500 hours of operation;
   e. Continuous non-potable water usage is needed with the belt press to clean belts after the sludge is discharged; and
   f. The sludge cake is normally between 16% and 18% dry solids or having a volume of approximately 6.7 cu yd. to 6.26 cu yd. per ton.

2. Centrifuges: This equipment also takes conditioned sludge (by adding polymer) and then spins the sludge in a high speed bowl to separate the water from the solids using centrifugal force.

   Five (5) different manufacturers proposed centrifuges for sludge dewatering. These units ranged from approximately $1.51 million to $2.46 million comparative construction costs to dewater the amount of sludge expected to be generated by the proposed facility. The main advantages for using this type of dewatering process are:

a. The unit is fully enclosed so no splash on the floor and surrounding areas would be present;

b. The sludge cake discharged from a centrifuge is normally in the 20% to 23% dry solids range; this reduces the volume of sludge to approximately 5.64 to 4.9 cu. yd. per ton which allows more tonnage to be hauled per truck load than with the dewatered product produced by the belt press;

c. Minimal use of non-potable water for cleaning the centrifuges during and after use; and

d. Once unit is in operation, the equipment can operate without continuous manning by WKUD operations staff.

The main <u>disadvantages</u> for using the centrifuges are:

a. The units must be elevated above sludge conveyor requiring special structural considerations for weight and vibration (due to high speeds needed by the centrifuge to work properly);

b. Large horsepower (increase in power cost) is needed to turn the bowl and scrolls used in the units; and

c. Special hoists must be designed over the centrifuges to allow for maintenance and replacement of units.

3. <u>Fan Press:</u> This equipment also takes polymer conditioned sludge and compresses it in a dewatering channel between two parallel stainless steel wedge wire filter plates. One (1) proposal from a manufacturer with this type of dewatering equipment was received. This proposal had the highest comparative construction cost ($2,541,825) of all the types of units evaluated. However, an evaluation of the operating costs placed it in the middle of all the proposals based on total comparative present worth costs. This proposal did not indicate the percent solids that the sludge cake would discharge. Pilot testing will need to be done for further consideration of this unit.

4. <u>Screw Press:</u> This equipment also takes conditioned sludge and passes it through a conical cylinder (or volute) with a screw shaft and cylindrical sieves

with stainless steel wedge wire. The excess water is filtered out through the wedge wire as the screw shaft pushes the thickened solids through the unit.

Three (3) different manufacturers presented proposals with this type of equipment. All three (3) of these units indicated that the sludge cake will be drier than that produced by the belt presses. One of these units has already been piloted at the existing Karns WWTP and the other two units have been scheduled for piloting during the spring of 2014. The units have comparative construction costs ranging between $1.83 million and $2.54 million. Operating costs with these units rank at or near the lowest (1, 2 and 4) of all the dewatering proposals.

The main <u>advantages</u> for using this type of dewatering process are:

a. The unit is fully enclosed so no splash on the floor and surrounding areas would be present;
b. The sludge cake discharged from a screw press is normally in the 18% to 22% dry solids range (depending on polymer usage and throughput). This reduces the volume of sludge to approximately 6.26 to 5.13 cu. yd. per ton. This drier product allows more tonnage to be hauled per truck load than with the dewatered product produced by the belt press;
c. Minimal use of non-potable water for cleaning the screw press during and after use; and
d. Once unit is in operation, the equipment can be operated without continuous manning by WKUD operations staff; maximum labor required per day is estimated at less than an hour per day.

Based on the proposal evaluations, piloted equipment, and operational history with the existing belt filter press equipment, the screw press type of dewatering equipment was considered to be worth further study and consideration. Installation of screw press equipment will provide for a cleaner, safer area and require less operator attention than belt filter press equipment. The screw press operates at a much lower speed than the centrifuges and requires considerably less horsepower;

thus, operating costs are lower than the centrifuge. The equipment produces a drier sludge cake than the belt press even though possibly less than the centrifuge when all equipment is operating under optimal conditions.

Design of this project will proceed based on the use of screw press type equipment. The building layout will be designed such that any of the three manufacturers (two under further investigation) might be supplied, with sufficient space allowance for any additional units required for the future organic design capacity of 10 MGD.

Present Worth Ranking	Process	Comparative Construction Costs	Compar. Construct. Ranking	Annual Costs	Present Worth of Annual Costs	Annual Costs Ranking	Total Comparative Present Worth
1	Screw Press A	$1,833,563	8	$17,904	$254,455	1	$2,088,018
2	Belt Press A	$1,137,500	1	$90,740	$1,289,627	8	$2,427,127
3	Centrifuge A	$1,507,500	4	$72,157	$1,025,529	6	$2,533,029
4	Belt Press B	$1,243,750	2	$103,056	$1,464,668	11	$2,708,418
5	Screw Press B	$2,405,000	10	$23,888	$339,503	2	$2,744,503
6	Belt Press C	$1,428,500	3	$102,086	$1,450,891	10	$2,879,391
7	Fan Press	$2,541,825	13	$23,894	$339,584	3	$2,881,409
8	Screw Press C	$2,537,500	12	$26,329	$374,201	4	$2,911,701
9	Centrifuge B	$1,705,000	5	$89,641	$1,274,014	7	$2,979,014
10	Centrifuge C	$2,458,750	11	$45,297	$643,782	5	$3,102,532
11	Belt Press D	$1,764,500	6	$98,004	$1,392,878	9	$3,157,378
12	Centrifuge D	$1,830,000	7	$104,685	$1,487,827	12	$3,317,827
13	Centrifuge E	$2,057,600	9	$157,501	$2,238,462	13	$4,296,062

III. TRANSPORTATION FACILITIES

A. General Discussion

The proposed Melton Hill WWTP will be located on land previously purchased by the District in the far western portion of the District's boundary. The acreage of the property (approximately 150 acres) will allow for the new treatment facilities to be laid out with a buffer zone from existing residents in the area. The proposed plant will be located on property between Hickory Creek Road and Buttermilk Road.

The existing Karn's WWTP is located in the Westbridge Industrial Park off Hardin Valley Road adjacent to Beaver Creek. Presently all flow to the Karn's wastewater treatment plant must be pumped by the main pump station located at the existing site into the headworks structure. This existing pump station will be modified for pumping the wastewater to the proposed treatment plant site. Recent flow monitoring performed for WKUD indicates that the peak flows coming to the existing Karn's WWTP are over 12.0 MGD during peak wet weather conditions. Limitations in the pumping capacity of the existing main pump station and screening facilities have resulted in surcharged manholes in the collection system during these conditions. Increasing the pumping capacity to 15 MGD to handle these wet weather peak flow was deemed necessary by WKUD staff to help prevent surcharging and possible overflowing manholes.

The force main size required for pumping up to 15 MGD peak flows from the existing site to the new WWTP site was evaluated. A proposed force main route was prepared using the elevations shown in KGIS database for the Hardin Valley area. This information shows that Hardin Valley Road has a peak high point elevation of 1,024 feet MSL approximately 10,600 feet from the existing pump station along the anticipated route. The wet well liquid level in the existing pump station is approximately 901 feet MSL; therefore, the static head that the pumps will see to get it to this high point is approximately 123 feet. Another high point (954 feet MSL) along the anticipated route is located on Hickory Creek Road approximately 36,200 feet from the existing pump station.

The total head seen by the pump is called the total dynamic head (TDH), which includes the static head, the pipe friction loss and the minor losses from required fittings. The friction headloss in the force main (FM) is dependent on the pipe size, pipe material, pipe length and the flow passing through the pipe. As the flow increases through a pipe, the friction and minor head losses in the pipe will increase and thus require higher horsepower pumps in the pumping station.

B. Force Main Sizing

Three (3) different size force mains were evaluated for transporting the expected flow to the new treatment plant. The table below shows the TDH for expected flows and different pipe sizes:

Pipe Diameter Size (inch)	Flow (MGD)	TDH (In Feet)	Velocity in Pipe (feet per sec)
24	6	140	2.96
24	10	200	4.92
24	15	365*	7.39
30	6	132	1.89+
30	10	145	3.15
30	15	171	4.73
36	6	129	1.31+
36	10	138	2.19
36	15	156	3.28

* The TDH of the 24" FM only requires 219 feet to get over the first high point (10,600 feet from the Karn's pump station), but an additional 146 feet to get to the proposed elevation of the onsite main pump station.

\+ Velocity below 2.0 feet per second (fps) (undesirable); velocity in 30" above 1.5 fps.

Although the velocity of the wastewater going through the 24-inch force main (FM) is over 2.0 feet per second (fps) to prevent solids from settling at low flows slightly over 4 MGD, the headloss at the peak flow of 15.0 MGD is much higher and would require approximately 1500 HP (3 pumps at 500 HP each) to move the wastewater through the force main. Thus a larger diameter FM should be used and the 30-inch and 36-inch diameters were evaluated. The velocity of the wastewater going through the 30-inch diameter pipe is below 2.0 fps at flows less than 4,400 GPM (6.33 MGD). The pumps required for the 30-inch pipe will be approximately 250 HP each which is about half of that required for a 24-inch pipe. The TDH shown in the table above for the 30-inch FM at the design flow rate of 6.0 MGD is 132 feet. The static head (difference in elevations) as previously shown is 123 feet, thus the friction head is only (132 – 123) 9 feet. At a flow of 10.0 MGD (6,950 GPM), the TDH increases to 145 feet (another 13 feet) which is not considered to be a significant increase. However, the friction head increases to 48 feet at the design peak flow of 15.0 MGD (an increase of approximately 39 feet from the flow rate of 6.0 MGD) for a TDH of 171 feet. The velocities in the 36-inch diameter force main are significantly lower at all flows but the differences in headloss are relatively minor in comparison to the 30-inch diameter force main and do not justify the additional costs of the larger diameter pipe. Ductile iron pipe (DIP) is the currently recommended pipe material for the force main. DIP is produced with standard sizes of 24-inch and 30-inch diameters with no sizes in between; therefore, the currently recommended FM is 30-inch diameter DIP with special corrosion resistant coatings required in areas which, at lower flows, may be subject to the pipe not flowing full. The possibility of using pipe made of other corrosion resistant materials will continue to be evaluated during the detailed design process.

C. <u>Pumps Evaluated</u>

1. Karn's WWTP Main Pump Station

The existing pumps at the Karn's main pump station are insufficient to handle the expected flows and heads to pump to the new WWTP site. There are two small pumps with 100 HP motors rated at 2,700 GPM at a TDH of 100 feet and two larger pumps with 200 HP motors rated at 4,200 GPM at a TDH of 119 feet. As shown above, the static head is 123 feet and the friction head will add another 48 feet (using the 30-inch diameter FM) to pump the maximum peak wet weather flow of 15.0 MGD. Evaluation of the pumps indicated that if the two larger existing pumps were upgraded with different volutes and impellers, each pump could handle the design flow of 6.0 MGD. The two existing small pumps would need to be replaced with 650 HP pumps to handle a flow of 15.0 MGD. Using variable speed pumps, the larger pumps could handle the flows between 6.0 and 15.0 MGD.

Another option considered is to replace all four existing pumps with 250 HP pumps sized so that three pumps running together will handle the peak flow rate of 15 MGD; one pump running should be capable of pumping up to 4,200 GPM or 6.05 MGD at 1,785 rpm (full speed). The pump was evaluated for operating using a variable speed motor (manufacturer recommended minimum flow of 2,000 GPM or 2.88 MGD). Operating two (2) of these pumps at a time would pump flows of up to 7,800 GPM or 11.2 MGD at full speed (1,785 rpm). Pumping the peak flow of 15.0 MGD will require using a third pump at full speed. The maximum horsepower required for each pump at full speed is approximately 202 which will save on power versus a large pump to pump the entire peak flow and lower flows down to 6 MGD (one small pump running). The larger pump (650 HP) would require using approximately 397 HP to pump a flow of 6.0 MGD; using the smaller equally sized pumps results in a savings of approximately 195 HP or 145 KW per hour at the 6.0 MGD rate. Therefore, the recommended arrangement for the pump station upgrade is for the installation of four 250 HP pumps and increasing the size of the discharge manifold, or adding a parallel second discharge line inside the dry well (further evaluation will be done during detailed design).

2. Hardin Valley Pump Stations (west of Parkway)

Presently there are three (3) pump stations located on the west side of the Pellissippi Parkway along the proposed force main route.

a. The Pellissippi Sewage PS (PPS) located at the community college;
b. Hardin Valley (at Steele Road) pump station (HVPS);

c. The third pump station, Covered Bridge PS (CBPS), presently pumps to the Hardin Valley PS, where it is then pumped to the gravity line going to the existing WWTP.

Both the PPS and the HVPS have sufficient head to pump directly into the proposed 30-inch FM coming from the Karns main pump station and going to the new proposed WWTP. The CBPS existing pumps have a recommended minimum flow rate of 400 GPM at a TDH of 130 feet. The hydraulic grade line of the proposed 30-inch diameter FM near this pump station is 977 feet MSL when pumping at the 15.0 MGD flow rate. The water level in the CBPS wet well is 821.4 feet MSL (155.6 feet below the hydraulic grade). This difference is approximately 25 feet higher than the TDH of the pump station. Thus, the CBPS is not capable of pumping directly into the FM if the Karn's main pump station is operating at the peak design flow rate. Therefore, the CBPS should continue discharging to the HVPS in the foreseeable future. As development continues in the Hardin Valley area near the CBPS and the flow increases, the pump station may need to be upgraded with larger pumps and motors so that the CBPS force main could be connected directly to the new 30-inch FM and removed from the HVPS.

The flow from these pump stations is presently estimated at approximately 1.0 MGD during peak flow conditions. The PPS and HVPS force mains can be intercepted and connected to the proposed 30-inch force main to allow direct pumping to the new WWTP site without having to be re-pumped at the Karn's pump station. This will serve to reduce the flow to be handled at the Karns facility.

D. Outfall Line to Clinch River

After the wastewater is treated at the new treatment plant site, the effluent will be transported to the Clinch River at River Mile 28 and discharged at the bottom of the main river channel with submerged diffusers through an outfall pipe. This outfall line will be designed to function as a gravity line that can handle flows from the initial plant size and expected future increases that might occur over the next 40 years. This design will be based on gravity flow from the treatment plant site into the river without any pumping. The proposed outfall route is approximately 6,900 feet in length and will flow as a gravity line until the lake level plus any accumulated pipe friction loss is reached in the pipe. At that point the line will act as a force main (flowing full).

The normal water level in Melton Hill Lake varies between elevation 793 and 795 MSL. The maximum elevation of the lake is 796 feet MSL (top of gates – emergency spillway overflow would begin if this is reached). Therefore the water level in the outfall pipe must be greater than 796 feet MSL plus the gravity head necessary to push the water through the pipe and discharge diffusers. Hydraulic equations used to determine headloss in a pipe is different for a gravity line (approximately 1,700 feet in length) than a force main (approximately 5,200 feet in length). The empirical equation normally used to determine headloss in a force main is the Hazen and Williams formula as shown below:

$$H_f = 0.002083\ L\ (100/C)\ ^\wedge{}^{1.85}\ [gpm^\wedge{}^{1.85} / D^\wedge{}^{4.8655}]$$

Where;
H_f = headloss due to friction (in feet of liquid)
L = length of pipe in feet
C = friction factor for Hazen & Williams for pipe material
D = diameter of pipe (in inches)
gpm = flow in gallons per minute

Assuming that the pipe will be filled with water for approximately 5,200 feet, the headloss can be estimated (C = 130) as shown in the table below.

Flow MGD	Flow GPM	Head-loss in feet			
	Pipe Diameters:	18”	24”	30”	36”
6.0	4,167	25.9	6.4	2.2	0.9
10.0	6,944	66.6	16.4	5.5	2.3
15.0	10,417	141.0	34.8	11.7	4.8
20.0	13,889	240.1	59.2	20.0	8.2
25.0	17,361	362.7	89.5	30.2	12.4

In addition to the headloss in the outfall line, the diffusers will create an additional pressure drop (headloss). The diffuser headloss can be estimated using the empirical formula:

$H_f = K\,[V^2/2g]$ + Fitting Headloss (pipe)
where;
H_f = head-loss in feet
V = velocity of the wastewater in feet per sec = Q (flow in ft/ sec) /A (area in sq ft)
g = gravitational constant – 32.174 ft/sec^2
K = resistant coefficient – for exit pipe K = 1.0
Diffuser piping length = 4 ft plus 45^{o} elbow

Flow MGD	Flow (Cu Ft/sec)	Head-loss in feet Assuming 4 outlets or diffusers			
	Pipe Diameters:	8”	10”	12”	15”
6.0	9.284	0.687	0.282	0.136	0.056
10.0	15.473	1.909	0.783	0.377	0.154
15.0	23.21	4.296	1.762	0.849	0.349
20.0	30.947	7.637	3.132	1.510	0.618
25.0	38.683	11.933	4.893	2.359	0.965

The proposed treatment plant is being designed with an organic capacity of 6.0 MGD with a future expansion of another 4.0 MGD for a total organic capacity of 10.0 MGD. The State of Tennessee Design Criteria recommends that pumping stations be sized to handle peak hydraulic daily flows of 2.5 times the average daily flow, thus, the outfall discharge line will be designed for a future peak daily hydraulic flow of (10 x 2.5) 25.0 MGD.

The anticipated elevations of the treatment facilities should provide sufficient head for the outfall and diffusers to be sized to provide peak flow capacity up to 25 MGD under gravity flow conditions. Recommendations for sizing are presented later in this report; however, these will be reviewed once the final design elevations are established and adjustments will be made if required.

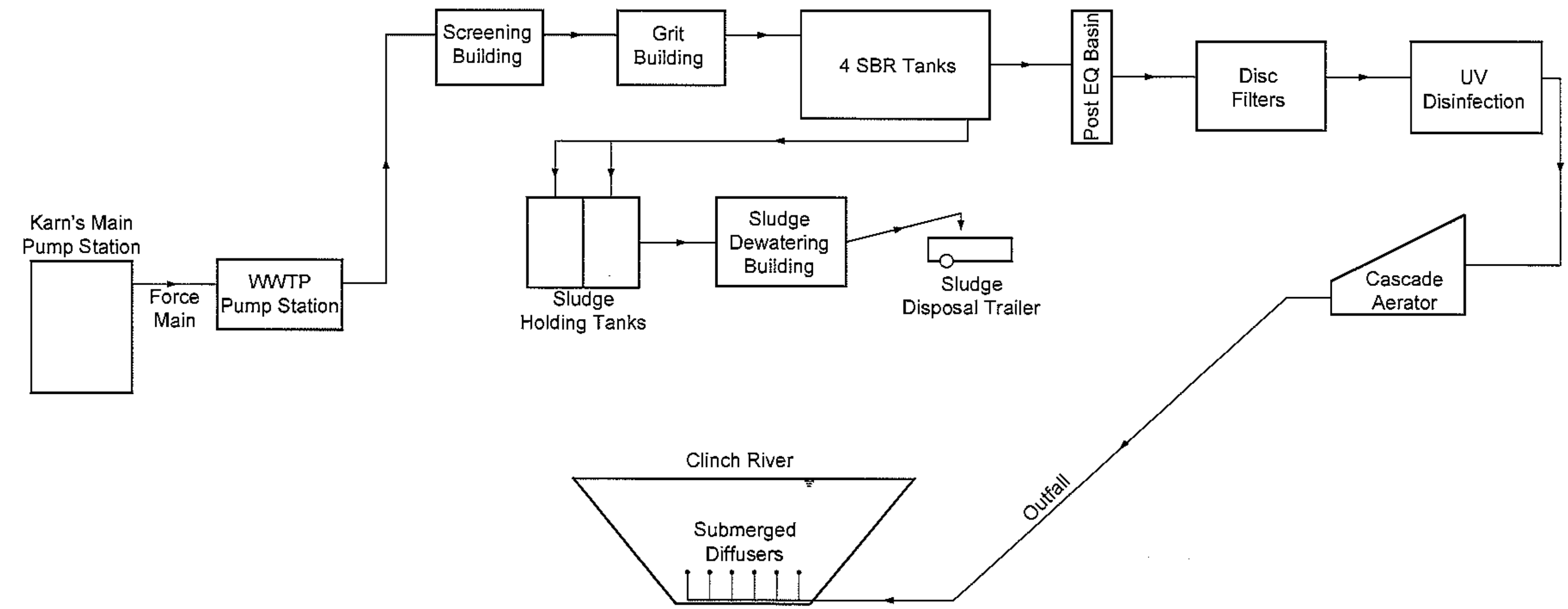
IV. PROPOSED TREATMENT PLANT

A. General Discussion

Evaluations of existing and anticipated conditions result in the recommendation for the proposed treatment facility to be designed for an organic capacity of 6.0 MGD initially and have the capability of handling peak hydraulic flows up to 15.0 MGD during extreme wet weather conditions to account for the extraneous water entering the collection system during these conditions. The plant will be designed to allow for a 4.0 MGD expansion of the plant up to an organic design loading capacity of 10.0 MGD (the NPDES permit) in the future. The proposed treatment plant site is such that all flow must be pumped to the new treatment facilities. Initial evaluations have shown that the pumped flow will be able to hydraulically exit at the treatment plant site at an elevation of approximately 950 feet MSL without increasing the head on the Karns pumping facilities. The top of the new site is at approximate elevation 1,100 feet MSL. Therefore a pump station at the new site will be required to lift the wastewater another 150 to 170 feet.

A flow diagram is included on the following page of this report which shows the proposed unit processes described below in schematic form.

A new headworks structure will be constructed near the top of the site incorporating drum screens to remove trash greater than 2 mm in size and then followed by mechanical vortex grit removal units. The wastewater will then be transported by piping and a splitter box to one of four (4) SBR units for biological treatment. Treated and clarified effluent decanted from the SBR units into an equalization basin will then be transported to disk filters to remove additional small suspended solids that may still be contained in the effluent. After filtration, the effluent will be disinfected using inline UV units mounted in the piping system. Finally, the effluent will be diverted to a cascade aerator to increase the dissolved oxygen level before it is transported through an outfall line to submerged diffusers located in the Melton Hill Reservoir at the bottom of the Clinch River main channel (at approximate river mile 28).



MELTON HILL WWTP FLOW DIAGRAM

MELTON HILL WWTP

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MARCH 2014

NTS

FIGURE IV-1

Solids (sludge) wasted from the SBR's will be pumped to an aerated holding tank and held until dewatered. Dewatering equipment (screw presses) will be sized to allow for five (5) days per week operations followed by hauling to a landfill for final disposal.

Estimates of the probable construction costs will be presented in Section V later in this report.

B. Plant Pump Station

A pump station will be constructed on the new treatment plant site at a location approximately 94 feet above Hickory Creek Road (center of road at approximate elevation of 856 feet MSL). The station will be provided with four (4) pumps using 300 HP motors to lift the pumped flows up to the new headworks structure approximately 167 feet above this structure. This pump station will be designed with a wet well to hold the flow pumped to the site and a dry well to house the pumps. Space for a 5th pump will be incorporated in the structure design for possible future growth. A building will be constructed over the top of the structure to house the mechanical ventilation equipment, electrical controls, hoists and miscellaneous equipment.

The structure will be approximately 23 to 25 feet in depth and have a footprint with an area of approximately 1032 square feet. The flow from the pump station will be pumped through a minimum 18 to 24-inch force main approximately 600 feet to the new headworks structure.

C. Headworks Structure

The new headworks structure will be designed to house new internally fed drum screens to handle the current design peak flow of 15.0 MGD (with one unit out of service) with room for additional units in the future to handle peak wet weather hydraulic flows of up to 25 MGD (10 MGD facility with TDEC recommended peaking factor of 2.5). The different screens evaluated normally can handle peak flows up to 7.5 MGD each, but one had a capacity of 5.0 MGD. The structure therefore will be designed to mount up to six (6) units (initially with up to four (4) units installed) and room for two (2) additional units in the future as the demand may require.

Grit removal will also be part of the headworks structure, but in separate buildings. The screened flow will be transported through the discharge channel to the grit removal inlet channel(s). The grit treatment system will reduce the flow velocity to approximately 1.0 fps which will keep the organic solids suspended but allow the heavier grit to settle in the chamber. The grit collected in the these units will be pumped to classifiers to clean the grit before it is dewatered and discharged into trash bins. This grit will be disposed of by hauling to the landfill.

D. <u>Sequencing Batch Reactors (SBR)</u>

The evaluation indicated that the most cost effective alternative for the biological treatment of the wastewater was the SBR process. The SBR process eliminates the need for separate clarification structures by incorporating different treatment phases in a common tank and decanting the supernatant from the tanks after a settling phase in each cycle. Under normal flow conditions, each tank will have 4 or 5 cycles per day (depending on the manufacturer’s standard design).

The new treatment plant will be provided with four (4) SBR tanks that provide biological treatment and physical settling of the suspended solids in the tanks. The tanks will probably be designed in rectangular common wall design where the wastewater enters the tankage at one end and is removed in batches (by means of decanter mechanisms) at the other end of the tanks.

The reactors (or tanks) will have several different phases in each cycle that will allow nutrient removal (nitrogen and phosphorus) as well as the standard BOD removal. This type of treatment unit will allow for compliance with the permit limits established by TDEC for this facility.

The decanted wastewater will discharge into an equalization basin (EQ) that will allow the flow going to the filters and disinfection system to be buffered and prevent peak decant flow conditions except in the most extreme conditions. This tank will be sized to handle the high batch decant flows from the SBR tanks (reactors) with provisions to feed the filters and disinfection units at a more constant rate. Flow control valve(s) will be incorporated into the design to regulate these flows. Air/mixing will also be provided in the EQ Basin.

E. <u>Disk Filters</u>

The SBR tanks will discharge, using decanters, into an equalization basin and then the flow will be piped to disk filters where suspended and/or settleable solids remaining in the decanted liquid will be filtered (treated) to remove additional solids. The number of disk filter units installed will depend on the final manufacturer selected; however, a standby unit will be installed so that one unit can be taken out of service while still handling the peak wet weather hydraulic flow of 15.0 MGD. The building will be sized to allow for the number of units required for the maximum daily future peak wet weather hydraulic flow of 25.0 MGD.

The disk filters were chosen over sand filters since their present worth costs were less than the sand filters, they have a smaller footprint and can be installed on slab inside a building. The disk filters are furnished by the manufacturers in stainless steel tanks and only require mounting on the concrete slab, connecting inlet and outlet piping. Controls are furnished that must be mounted near the tanks and electrical power connected to both. The disk filters will be enclosed inside a building to protect them from freezing conditions and direct sunlight which promotes algae growth.

F. <u>UV Disinfection</u>

After the effluent is filtered, it must be disinfected prior to discharge into the outfall line going to the Clinch River. The disk filters will treat the discharged effluent to a total suspended solids (TSS) content of less than 5.0 mg/l.

The required inline UV units (connected directly to the piping) will be housed in a small building following the disk filters. During detailed design, incorporation of these units into the same building as the disk filters will be evaluated to help reduce costs. The number of inline UV units installed will depend on the final manufacturer selected; a standby unit will be installed so that one unit can be taken out of service while still handling the peak wet weather hydraulic flow of 15.0 MGD. The layout will account for the number of units required for a future peak wet weather hydraulic flow of 25.0 MGD.

G. Post Aeration

The effluent standards set by the State for the new treatment plant requires a dissolved oxygen content of 6.0 mg/l prior to discharging into the Clinch River. Adding oxygen to the effluent can be accomplished by several methods, but one of the most cost effective is cascading the flow over a series of concrete steps to create a splash of water to naturally oxygenate the water. No mechanical equipment is required to accomplish this, only 10 or more feet of elevation drop to saturate the water content with atmospheric oxygen. Since UV disinfection of the effluent does not leave any disinfectant residual, the cascade aerator will be covered with a roof canopy to prevent direct sunlight which promotes the growth of algae on the concrete.

The outfall sewer will be connected to the lowest portion of the cascade aerator (presently anticipated at an elevation of about 1040 feet MSL) where the flow would be piped through the gravity outfall to the submerged diffusers in the Clinch River.

H. Outfall

The hydraulics associated with the outfall has indicated that the line should be sized at approximately 24-inches in diameter to provide sufficient velocity to prevent stagnation. The hydraulic head needed to move water through the line and discharge into the river has been estimated using 4-10 inch diffuser outlets to be approximately 10 feet at the design flow of 6.0 MGD. At the current peak wet weather design flow of 15.0 MGD, the head needed will increase to approximately 43 feet.

The maximum water elevation of Melton Hill Lake is shown to be 796 feet MSL, thus, the water level in the outfall would backup to an elevation of approximately (796 feet MSL+ 43 feet) 839 feet MSL during the peak wet weather flow of 15.0 MGD. If the flow increases in the future to 20.0 MGD, a fifth diffuser outlet would need to be added to the submerged outfall. Using five (5) diffuser outlets prevents the head from increasing significantly, but it does increase the headloss to approximately 68 feet. The water level in the outfall would therefore back up to an elevation of approximately 864 feet MSL.

If the treatment plant peak wet weather flow increases to 25.0 MGD in the future, a sixth diffuser outlet would need to be installed to handle the flows through the 10-inch outlets (maximum of 3000 GPM each). The headloss in the outfall using six (6) diffuser outlets is approximately 99 feet. The water level in the outfall would therefore back up to an elevation of approximately 895 feet MSL.

Based on the above discussion, to prevent having to pump the WWTP effluent into the Clinch River during peak flow conditions, all treatment processes (except sludge treatment) need to be constructed at an elevation greater than 900 feet MSL. As the plant layout is now envisioned, all treatment structures should be above elevation 1030 feet MSL.

I. <u>Sludge Holding, Dewatering and Disposal</u>

1. Sludge Holding

The sludge produced by the settling and biological treatment of the wastewater in the SBR tanks will require wasting sludge from each tank once per cycle per tank. The sludge dewatering equipment will be sized to allow for an operating schedule of approximately 6 to 7 hours per day, 5 days per week. Sludge wasting will occur throughout the day, every day; therefore sludge storage facilities must be provided with sufficient volume for holding until operating staff are ready to dewater the sludge.

A holding tank will be part of this design sized to hold up to ten (10) days of sludge that is produced without any dewatering operations taking place. This is considered sufficient storage for maintenance on the dewatering equipment, bad weather, hauling equipment problems and holidays. The holding tank will be constructed with a center wall which allows sludge to be pulled from one side for dewatering while all the wasted sludge is pumped to the other side. A floating decanter will be provided in each side of the tank to allow the solids to settle with all mixing and aeration equipment turned off, and decant the supernatant from the tank to help concentrate the sludge prior to sending it to the dewatering equipment. The tank will also be provided with mixing equipment and aeration equipment to prevent the sludge from going septic. This tank sizing will be for the 10 MGD facility to accommodate future flows without requiring additional sludge holding tanks.

2. Sludge Dewatering

As previously discussed, the selected means of dewatering the sludge will be with screw press type equipment. One screw press manufacturer has been piloted at the Karn's WWTP and two (2) others are scheduled for piloting in the spring of 2014. The number of dewatering units installed will depend on the final manufacturer selected; a standby unit will be installed so that one unit can be taken out of service while still handling the facility requirements. The building will be sized to allow for the number of units required for a 10 MGD facility. The screw press building will be provided with ventilation system which will include air scrubbing for odor control prior to releasing to the atmosphere.

Conveyors will be provided to transport the dewatered sludge to dumpsters similar to those presently used at the Karn's WWTP or dumping type trailers. The hauling method used for transporting the dewatered sludge to the landfill is still under consideration by WKUD staff. A final decision will be made prior to final design.

3. Sludge Disposal

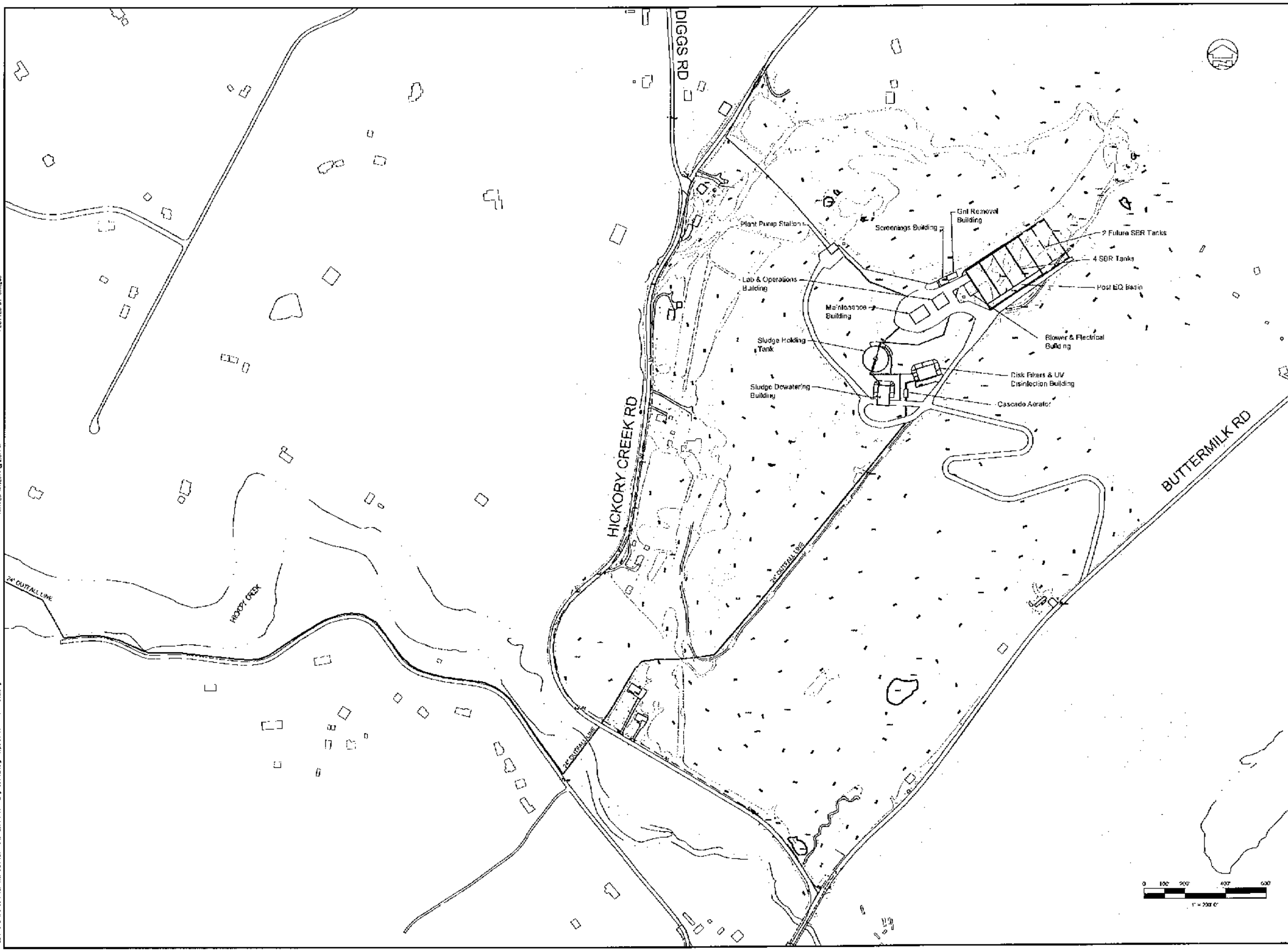
   Sludge is presently hauled to a landfill approximately 51 miles from the existing Karn's WWTP, so the roundtrip distance is approximately 102 miles. Dewatering the sludge to reduce the volume transported is an important issue and the minimum sludge solids content should be 20% which is about 4 to 5% drier than the existing belt presses can achieve (unless excessive polymer is used). The existing rolloff dumpster holds approximately 40 cubic yards of sludge or about 7.2 tons. Sludge production at the WWTP will create approximately 7.2 tons per day (at design capacity) of dewatered sludge with a content of 20% solids. Therefore, one trip per day should be needed using this type of dumpster. A large dump trailer (duel tandem axles) that can hold 30 or 45 cubic yards could also be purchased by WKUD and used to transport the sludge to the landfill. The final decision on the method of sludge transportation will be made by WKUD staff during the design of this facility.

V. PROBABLE CONSTRUCTION COSTS

The schedule below presents the estimates of probable construction costs for the various proposed components required for this facility. Three exhibits are also attached to this report showing a proposed layout on the WKUD property and the outfall to the river. Exhibit 1 shows the proposed layout of the new treatment plant and a portion of the outfall line with contours. Exhibit 2 is a blowup of the treatment units on the site with contour lines and Exhibit 3 is an aerial view of the proposed treatment plant site and the outfall to the Clinch River.

A. Karn's Main Pump Station		**$ 1,100,000**
B. 30" Force Main to new WWTP		**$ 8,200,000**
C. WWTP		
1. Main Pump Station	$ 1,729,000	
2. MPS Force Main	$ 163,000	
3. Headworks Structures w/buildings	$ 2,331,000	
4. SBR Tanks & Post Equalization	$ 8,934,000	
5. Effluent Disk Filters w/building	$ 3,435,000	
6. UV Disinfection w/building	$ 1,305,000	
7. Cascade Aeration	$ 366,000	
8. Sludge Holding Tank	$ 2,030,000	
9. Sludge Dewatering Units w/building	$ 4,191,000	
10. Operations/Lab Building w/SCADA	$ 1,397,000	
11. Maintenance Building	$ 778,000	
12. Blower & Electrical Power Bldg. (eqpmt. included in other items)	$ 342,000	
13. Sitework (grading, sidewalks, landscape, roadways, fencing, etc.)	$ 3,930,000	
14. Electrical power, generator, outdoor lighting	$ 804,000	
15. General Conditions/Supervision	$ 900,000	
16. Mobilization	$ 400,000	
17. Permits, Bonds and Insurance (2.5%)	$ 794,000	
18. Odor Control Equipment	$ 671,000	
Subtotal		**$ 34,500,000**
D. Outfall from Cascade Aerator to Clinch River		
1. Piping on land	$ 850,000	
2. Piping in Water (submerged)	$ 3,350,000	
Subtotal		**$ 4,200,000**

Total Probable Construction Cost:	**$ 48,000,000**
Contingencies, Developmental Costs, etc.:	**$ 10,000,000**
Total Project Costs:	**$ 58,000,000**



MELTON HILL WWTP & OUTFALL LINE
OVERALL VIEW
MELTON HILL WWTP
WEST KNOX UTILITY DISTRICT

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GRW PROJECT NO. 7567-01
CLIENT PROJECT NO. ____

REVISIONS

JANUARY 2014
AS NOTED
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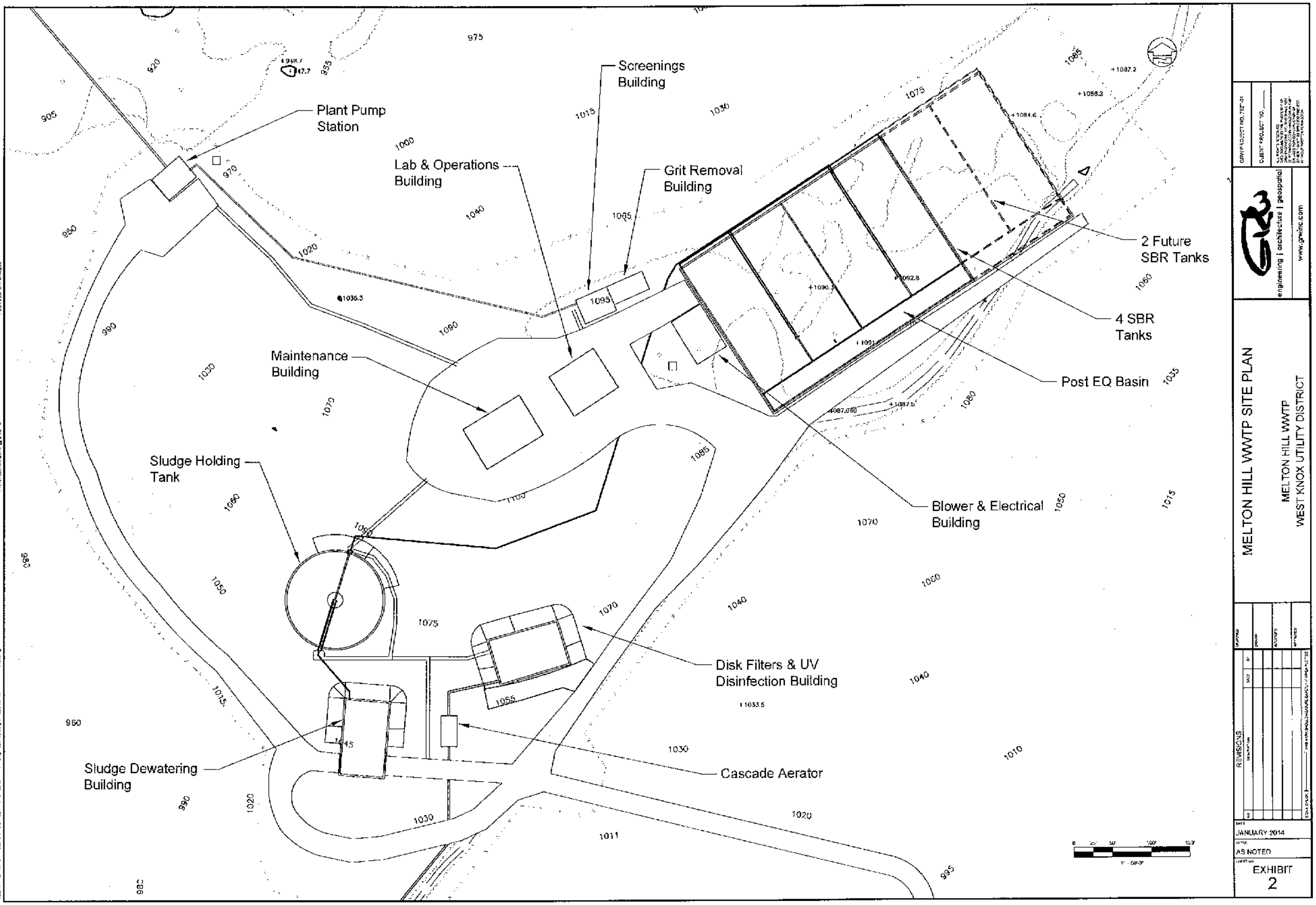

Plant Pump Station
Screenings Building
Lab & Operations Building
Grit Removal Building
2 Future SBR Tanks
4 SBR Tanks
Maintenance Building
Post EQ Basin
Sludge Holding Tank
Blower & Electrical Building
Disk Filters & UV Disinfection Building
Cascade Aerator
Sludge Dewatering Building
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MELTON HILL WWTP SITE PLAN
MELTON HILL WWTP
WEST KNOX UTILITY DISTRICT
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JANUARY 2014
AS NOTED
EXHIBIT
2

MELTON HILL WWTP & OUTFALL LINE
AERIAL VIEW

MELTON HILL WWTP
WEST KNOX UTILITY DISTRICT

GRW PROJECT NO. 7827-01
CLIENT PROJECT NO.____

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REVISIONS

DATE: JANUARY 2014
SCALE: AS NOTED
SHEET NO. EXHIBIT 3

APPENDIX F

BOOK-ENTRY SYSTEM

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INFORMATION RELATED TO THE DEPOSITORY TRUST COMPANY

1. The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the securities (the "Securities"). The Securities will be issued as fully registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully registered Security certificate will be issued for the Securities, in the aggregate principal amount of such issue, and will be deposited with DTC.

2. DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation, and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

3. Purchases of Securities under the DTC system must be made by or through Direct Participants, which will receive a credit for the Securities on DTC's records. The ownership interest of each actual purchaser of each Security ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Securities are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Securities, except in the event that use of the book-entry system for the Securities is discontinued.

4. To facilitate subsequent transfers, all Securities deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Securities with DTC and their registration in the name of Cede & Co. or such other nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Securities; DTC's records reflect only the identity of the Direct Participants to whose accounts such Securities are credited, which may or may not be the Beneficial Owners. The Direct and Indirect

Participants will remain responsible for keeping account of their holdings on behalf of their customers.

5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Securities may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Securities, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Securities may wish to ascertain that the nominee holding the Securities for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

6. Redemption notices shall be sent to DTC. If less than all of the Securities within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Securities unless authorized by a Director Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Distict as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Securities are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Redemption proceeds, distributions, and dividend payments on the Securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from the Distict or Agent on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Agent, or the Distict, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividends to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Distict or Agent, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

9. DTC may discontinue providing its services as securities depository with respect to the Securities at any time by giving reasonable notice to the Distict or Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Security certificates are required to be printed and delivered.

10. The Distict may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Security certificates will be printed and delivered.

11. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Distict believes to be reliable, but the Distict takes no responsibility for the accuracy thereof.

WEST KNOX UTILITY DISTRICT OF KNOX COUNTY, TENNESSEE • WATER AND SEWER REVENUE IMPROVEMENT AND REFUNDING BONDS, SERIES 2016

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