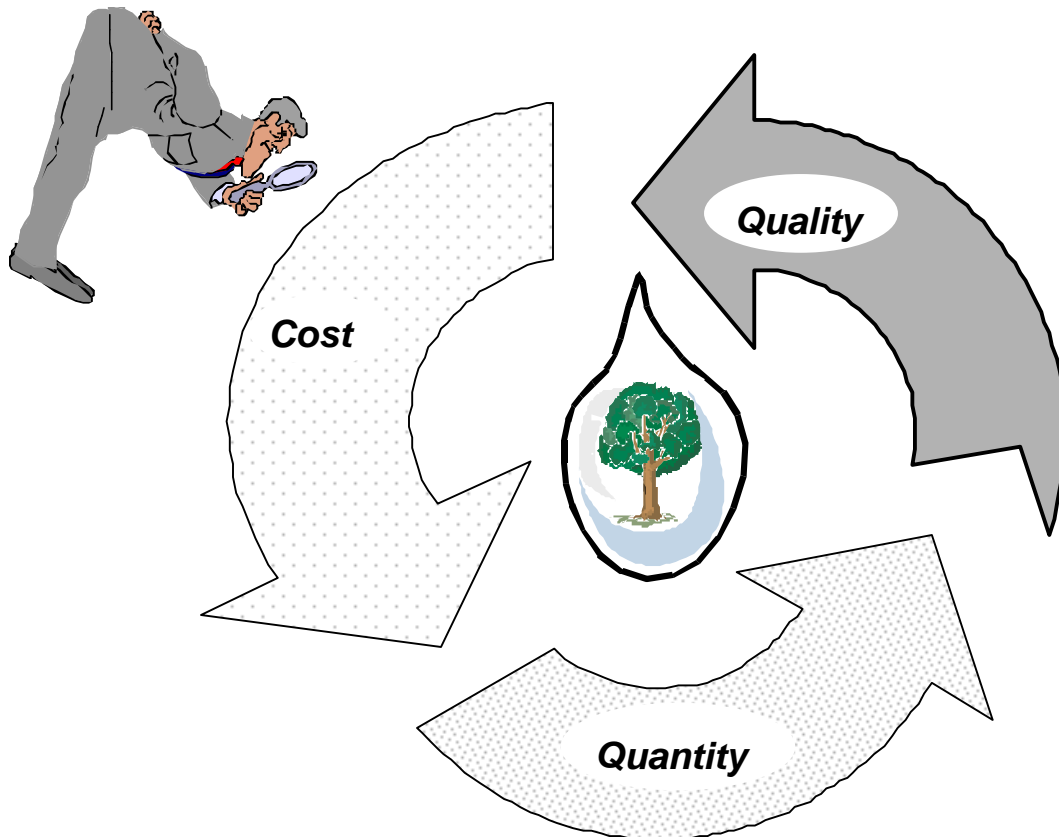


Nottingham Country Municipal Utility District
An Overview of Capital Improvement Projects (CIP)
And Financial Estimates
Necessary To Maintain and Improve
District Infrastructure Thru 2012



January, 2003

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**Nottingham Country Municipal Utility District Capital Improvement Projects
and Long Term Plan ***

Project Descriptions and Cost Estimates:

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Ray Pavlovich, President
Nancy Howard, Vice President
Chuck Garibay, Assistant Vice President
Midge Zak, Secretary
Phillip Irvin, Assistant Secretary

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1. INTRODUCTION

Over the past twenty years, Nottingham Country Municipal Utility District (the “District” or “MUD”) has expended about \$25 million to construct water, sanitary sewer, and drainage facilities and about \$3 million to acquire and partially develop greenbelt park facilities to serve the needs of its residents. The purpose of this report is to evaluate the status of these facilities and to provide a plan for their future development, rehabilitation, repair, and replacement in order to maintain a viable and responsive District for the residents. By focusing on both short-term and long-term maintenance and development of the facilities, the District will be able to identify potential sources of revenue and plan for necessary expenditures, thus avoiding potential financial surprises. This report will help the District ensure the continued provision of consistently high quality utilities to its customers and maintain stable tax rates and water and sewer charges.

A long-term plan cannot accurately predict all future events, and thus this report is intended to serve as a living document subject to amendment as circumstances and priorities change. The information contained in this report represents the current best estimates of the District’s Board of Directors and its consultants. Unforeseen circumstances such as unanticipated equipment or system malfunctions or natural events may necessitate the revision of priorities. Such unforeseen events may also result in financial expenditures in excess of those considered in this report.

* This document is a planning tool. It is subject to change at the discretion of the District’s Board of Directors.

2. THE DISTRICT

A. Creation

The District is a conservation and reclamation district created pursuant to Article XVI, Section 59 of the Texas Constitution operating under Chapters 49 and 54 of the Texas Water Code. The District was created on 24 February, 1981 by the Texas Department of Water Resources (a predecessor to the Texas Commission on Environmental Quality (“TCEQ”) and is subject to the continuing oversight of TCEQ.

B. Purposes of the District

The principal functions of the District include the financing, construction, ownership, and operation of waterworks, wastewater and drainage facilities to serve the District. In addition, the District is authorized to oversee development and maintenance of parks and recreational facilities to serve the residents of the District.

C. Amount Spent to Date

To date, the District has issued \$24,690,000 in unlimited tax bonds through which it has financed the construction of infrastructure including two groundwater wells, water storage facilities, a water plant, a water distribution system, a wastewater collection system, a wastewater treatment plant, and a storm sewer system. In addition, the District has utilized approximately \$3,000,000 in system revenues to finance the acquisition and development of a greenbelt park to serve the residents of the District.

D. Status of Development

The District currently contains 1,010.4384 acres within its boundaries and serves approximately 2,000 households. According to the Harris County Appraisal District, the taxable value of property within the District was \$454,795,540 for fiscal year 2002. When fully developed, the District will serve between 2200 and 2300 households.

As the District approaches full development, it will face new financial constraints and challenges. In the past, new development in the District has provided for a steady flow of income in the form of tap fees. However, as the District matures, this revenue stream will disappear. This report will assist the District in planning for that eventuality. An additional challenge is presented by the age of portions of the District’s infrastructure. Some of the mechanical infrastructure is nearing its expected design life of approximately twenty years. The District will be required to make substantial expenditures in the coming years to maintain the high quality of water and sewer services that District residents have come to expect.

E. Surface Water

The District must also prepare to address the challenges presented by the surface water conversion requirements imposed by the Harris-Galveston Coastal Subsidence District. The District is a member of the West Harris County Regional Water Authority (WHCRWA), which has developed a Groundwater Reduction Plan that converts the District's region to thirty percent surface water by 2010. Surface water will be purchased from the City of Houston, and the City of Houston will provide treatment facilities and some transmission lines. The cost of the surface water and facilities will be charged to the WHCRWA and, in turn, to the individual participating MUDs and their customers.

F. Revenue Sources and Financing

The primary sources of District revenue are property taxes and fees for water and sewer service. The District's property taxes are divided into two parts, a debt service tax and a maintenance and operations tax. The District may finance the development of infrastructure with bonds that are repaid with property taxes dedicated to debt service. Through a series of bond elections, voters in the District authorized the issuance of \$29,250,000 of unlimited tax bonds for the acquisition, construction, and improvement of the District's systems. As discussed above, the District has issued \$24,690,000 in unlimited tax bonds to date, leaving \$4,560,000 of authorized but unissued unlimited tax bonds for future development.

The maintenance and operations of the District may be financed with water and sewer revenue and with revenue from the maintenance and operations tax. The District has total annual revenues of approximately \$1.8 million and operating expenses of \$1.1 million without consideration of the depreciation, repair, or replacement of District facilities. The District intends to use the remaining fund balance for capital improvements and the long-term maintenance of District infrastructure.

3. WATER SUPPLY

A. General.

Water capacity from a groundwater aquifer is, essentially, a function of height of the water column over the submersed pump; this distance from the pump to the groundwater level is referred to as "head." This is the reason that the well is drilled as deep into the aquifer as possible, and the pump is placed as low as economically feasible. The Gulf Coast Aquifer which underlies the District is a tilted clay, sand and gravel bed that is recharged upstream, generally, by rainfall. If water is removed from the aquifer at a rate greater than recharge, the water table is lowered reducing head over the pump and well production.

In the District, water levels over the pump are severely reduced during high water use months of the summer and, as a result, the pump at one well has been lowered in order to restore production from the well.

Total pumping capacity required by TNRCC is 2100 gallons per minute (gpm) for optimum system performance. Well No. 1 was designed for 2250 gpm and Well No. 2 was designed for 1500 gpm.

B. Rehabilitation of Well No. 2.

Rehabilitation of Well No. 2 is expected to follow the procedure that was followed for Well No. 1 that includes lowering the pump into the aquifer as far as possible with installation of appropriate power systems. Timing of this rehabilitation will be based on extraction of water from the aquifer by districts that tap the aquifer and upstream recharge rates; neither of which are precisely known. It is assumed that this will likely be required within the next five years at an estimated cost of \$400,000.

C. Development of a Third Well.

It is possible that extraction from the Evangeline Aquifer, one of the three aquifers that make up the Gulf Coast Aquifer, will severely exceed recharge, especially if the present growth pattern north and west of the District continues. If this occurs, a third well should be considered. Information is that this well should penetrate below the Evangeline to the Jasper Aquifer formation and will likely need treatment in excess of that given to the present water supply.

It is estimated that this probably will need to be implemented in the second five year period at an estimated cost of \$1 million. Costs to provide additional treatment will be discussed later.

4. PLANT SECURITY

District plants (water supply and wastewater treatment facilities) have been audited to determine necessary but reasonable improvements in security for all systems. While security has become more important since the September 11, 2001 actions of terrorists, audits to determine where nominal improvements are necessary for protection from vandalism and naturally occurring events such as tropical storms, hurricanes, and tornadoes have been conducted.

Emphasis is placed on prevention of damage where possible, detection of events or damage, and planned response to these events. Available and reasonable measures include:

- Improvements to plant fencing.
- Better control of plant access.

- Possible installation of motion detectors.
- Restrictions on access to ground storage tanks.
- Operations staff training.
- Response plan coordination with local authorities.
- Enclosures at wells.
- Increased frequency of water sampling.

Full implementation of these measures is estimated at \$250,000 in the first five year period.

5. WATER PLANT

A. Data System and Analyzers.

Most functions of the operating system are presently monitored and controlled manually by the District's Operator. Such operations include monitoring of water levels in the ground storage tanks, pump operating times, water levels in the wells, and chlorine dose rates. New technology is available that will obtain operating data, transmit the data to a central computer, and process the data to make information available to the Operator. Uses of the information include:

- (1) Determination of ground water level. During periods of high water usage, the water table may be lowered to the level that a well can no longer produce to the rated capacity. In such a situation, it is possible that a well will be rendered unable to produce an adequate amount of water to provide for normal or fire demand. This reduced production along with finite storage capacity may require modification of the production schedule, through procedures such as water production from more than one well.
- (2) Additionally, the information can alert the Operator to equipment malfunctions, or to the need to impose usage restrictions in a timely manner so as to prevent or mitigate potentially dangerous water shortages during fires or other emergencies.
- (3) Information generated by the data system can be used for engineering analyses to determine modifications or addition to the water system such as well improvement, increased storage, and the need for development of additional water sources.

Estimated costs for hardware, software, and housing for the data system is estimated at \$35,000, and installation of the system should be started in the short term.

B. Storage.

Water storage for the District consists of three ground storage tanks. Two of the tanks are 620,000 gallon capacity and one is 320,000 gallons for a total of 1,560,000 gallons.

Tank No. 1 (620,000 gallons) was demolished and reconstructed in 2001; Tank No. 2 (320,000 gallons) was constructed in 1996, and Tank No. 3 (620,000 gallons) was constructed in 1999.

Given the existing storage capacity of 1.56 million gallons, fill time for the three tanks by well No. 1 at 2250 gallons per minute is about 11.5 hours. Fill time by well No. 2 at 1500 gallons per minute is about 17 hours. If both wells could pump at capacity and if, in an emergency, water quality were not an issue, all tanks could be filled in about 4.5 hours. Note these calculations assume all water flows to the ground storage tanks with none flowing directly into the distribution system.

It is recommended that the District provide storage capacity of 400 gallons per day per connection. For 2300 connections, 1 million gallons of storage capacity is suggested which is considerably less than the 1.56 million provided. Fire requirements are recommended at 2200 gallons per minute for three hours or 396,000 gallons which is also well within present storage capacity.

Each tank should be recoated externally in the 2002 to 2012 period at an estimated cost of \$100,000. For purposes of this study, consider Tank No. 1 to be recoated in the first five year period and Tanks Nos. 2 and 3 recoated in the second five year period.

C. Convert to Bleach for Water Disinfection.

Present disinfection of water is by conventional chlorination in which gaseous chlorine is injected into the water prior to placement in the distribution system. While this method is generally adequate, chlorine gas is a hazard to handle and store. It is expected that, in the near future, it will be in the District's best interest to change to a less hazardous method such as use of liquid chlorine bleach. It is estimated that this change-over will cost \$30,000 and will be necessary in the short term.

D. Rehabilitate Gravity Filters.

Existing filters were installed in 1993 with an expected service life of 8-10 years. The present filters have functioned well but are nearing the time for rehabilitation that will include replacement of the underdrain system and filter media, replacement of flow control valves and operators, structural reinforcement of the

steel tanks in select areas, and recoating of the tanks inside and out to protect the steel.

Due to the required capacity and length of time needed to rehabilitate the existing filter modules, a third rack of three new modules should be in operation prior to the start of rehabilitation of the existing modules.

This rehabilitation should be implemented in the first five year period at an estimated cost of \$500,000.

E. Additional Filters.

If the additional well is constructed and also if it is desired to mix water from wells 1 and 2, additional filters will be required. In order to be able to work on a portion of the filter bank and not interrupt water service when filters are out of service, a bank of filters (“three-pack”) should be installed in the first five year period and an additional bank installed in the second five year period. Each bank is estimated to cost \$600,000.

F. Filter Back-Wash Tanks.

Tanks used for back-wash should not require rehabilitation in the short or long term. However, the tanks of the system are in need of maintenance by internal and external recoating within the next five years at an estimated cost of \$200,000.

G. Replace Booster Pumps.

Pumps used at the water plant have an expected life of five to eight years. Small pumps will be replaced in the short term at an estimated cost of \$50,000 and large pumps will require replacing after five years at an estimated cost of \$150,000.

H. Replace Clear Well Pumps.

Clear well pumps downstream from the sand filters and upstream from storage tanks at the water treatment plant have an expected life of five to eight years and will need to be replaced twice (once in short and once in long term) at an estimated cost of \$30,000 for each replacement.

I. Add Hydropneumatic Tank.

The District has two hydropneumatic tanks (HPT) located at the water plant site. These work in tandem with the booster pumps to maintain water system pressure under widely varied demand conditions. With the anticipated 2300 connections, an additional 20,000 gallon HPT should be added as the District nears build-out. This third tank is budgeted at \$60,000 in the second five year period.

6. WATER DISTRIBUTION

A. General.

Without a description of the entire District, Nottingham MUD consists, broadly, of two “zones” separated by Mason Creek. The south zone includes the water treatment plant, sewage treatment plant, and both wells along with associated distribution piping. The north zone is supplied by a single water line suspended below the bridge over Mason Creek at Fry Road.

B. System Interconnections.

Most districts, including Nottingham, are a self sustaining unit in as much as each provides water supply (wells or surface water), and each operates water and sewage systems independently of other surrounding districts. In the event of a system-wide failure that would cause a loss of water supply to the entire district, outside water sources are desirable and necessary. The only way to provide this very short term emergency supply is to have “interconnections” with adjacent or neighboring districts. Nottingham Country MUD is bounded by five other districts (Mason Creek, Green Trails, Memorial, Harris County 81, and Cinco 6 MUDs). Negotiations are in progress to develop interconnections with at least two neighboring districts in order to have emergency service for the zones both north and south of Mason Creek.

While interconnections are a benefit to both interconnected districts, some of the surrounding districts are reluctant to participate in cost sharing. This means, of course, that Nottingham may need to bear full costs of the interconnection in order to be able to have benefits of this emergency water source. Furthermore, the water supply axiom that a district cannot have too many interconnections, requires that the District should enter into at least two interconnection agreements (one each for the north and south zones), and perhaps, a third, if costs are reasonable.

These interconnections are necessary immediately and are estimated to cost \$75,000.

C. Mason Creek Undercrossing.

The north zone of the District is served by a single 12-inch line that is suspended under the Fry Road bridge at Mason Creek. This crossing is vulnerable in the event the bridge is damaged by tornado, floods, etc. While the District intends to provide very short term emergency water supply with appropriate interconnections for the north side, a more positive supply system is desirable.

It is proposed to provide a second supply line to this area or zone by building a crossing under Mason Creek and looping the line appropriately in the zone. This

additional feed line will provide a positive supply in case of damage to the bridge line as well as ensure adequate supply and pressure on the north end of the zone in the event of a major fire or other emergency that requires capacity in excess of short term supplies via the interconnect.

This loop should be implemented in the short term at an estimated cost of \$95,000.

D. Valve Survey and Map.

The District has recently had maps of water and sewer lines developed in order to provide better and more timely information for the District and to comply with new governmental accounting standards. Additional work should be conducted to locate all valves and map locations of these valves. This will allow development of zones within the District that will allow quick isolation of breaks, insure circulation for back flushing and fires, and allow direction of all District water to a specific zone in case of major emergencies such as major fires or local line contamination.

This survey should be undertaken as soon as possible at an estimated cost of \$15,000.

E. Meter Replacement.

Water meters lose accuracy with use. Replacement of meters is, therefore, based on the amount of water metered and not, particularly, a direct function of time. It is estimated that meters should be replaced after about 1 million gallons of throughput. With a typical usage of 20,000 gallons per month, District meters may need replacement after about five years of service since planned replacement will increase metering accuracy, accountability, and billing. The District should budget to replace 20 percent of meters annually at a cost of about \$70 per meter for an annual budgeted amount of \$30,000. Therefore, estimated costs for each five year period are \$150,000.

7. WASTEWATER COLLECTION

A. Manhole Survey / Inspection / Map.

In order to survey the collection system and determine if lines or manholes need repair or to locate sources of inflow and infiltration, a survey of the system manholes (somewhat the same as was started for water distribution and sewage collection lines) is necessary. This survey should be started and completed in the near term at an estimated cost of \$50,000.

B. Closed Circuit Television Survey of Collection System.

This survey should be conducted for the entire collection system every 10 years in order to determine condition of the system and determine if repairs are necessary before failures occur. To date, only spot recordings have been made in order to investigate specific problems on an as-needed basis, and 10 years have passed since the major trunk line was surveyed. It is recommended that the entire collection system should be televised on a 10-year cycle. Since the system consists of approximately 100,000 linear feet of sewer pipe, 10,000 feet per year should be televised at an estimated cost of \$40,000 per year or \$200,000 per five-year period.

C. Inflow and Infiltration (I/I).

Storm water that enters the sanitary sewer system is called "inflow and infiltration." Inflow is the entry of surface water directly into the system, usually through faulty manholes and infiltration is storm water that enters the system after soaking through the surrounding soil. This additional flow travels to the treatment plant and is needlessly treated with associated costs and, in some cases, can cause overload of the treatment plant.

Inflow is the largest source, and is most cost effectively corrected by means of manhole repairs including installation of inflow preventers, resetting of manhole rings and covers, and lining of manholes. Following the manhole survey and inspection, it is recommended that \$75,000 per year be allocated to the effort or \$375,000 per five-year period.

D. Pump Replacement.

The District pumps wastewater from the south portion of the District to the wastewater treatment plant. Pumps used for this purpose have an expected life of 10-12 years and were last replaced or installed in 1993 and, therefore are expected to require replacement within the next five years at an estimated cost of \$50,000.

The wastewater treatment plant influent lift station is equipped with four raw sewage pumps. Like the pumps in the remote lift station, these pumps will need to be replaced in the second five year period at an expected cost of \$100,000.

8. WASTEWATER TREATMENT PLANT

A. Provide Plant Water System.

The wastewater plant uses 30,000 to 50,000 gallons per day of water for chlorination, dechlorination, and belt filter cleaning. Currently this water is furnished by the District water system. Effluent from the wastewater treatment plant can be used for these purposes, and a plant reuse water system should be

installed in the near future to remove this demand from the water system in the first five year period at an estimated cost of \$50,000. With a usage fee of \$1.90 per 1,000 gallons, present use reflects an indirect cost of about \$2,800 per month. Thus, through water savings, the re-use system could pay for itself in about 18 months.

B. Fine Bubble Aeration System.

The present aeration system utilizes air drops or “bubblers” that are a constant source of costs to replace broken or malfunctioning units. Newer technology uses “fine bubble aeration” that is more reliable and reduces plant power requirements by an estimated 25 percent. This plant improvement and update should be implemented in the short term at an estimated cost of \$250,000.

C. Clarifier Mechanism Replacement.

The existing clarifier was designed to act as a circular system in a rectangular tank that requires a substantial mechanical system to prevent build-up of solids in the corners. The mechanism is 20 years old and frequently requires a system shut down, drainage of the clarifier to repair the mechanism with consequent manual cleaning of the clarifier. The system should be updated in the second five year period at an estimated cost of \$250,000.

D. UV Disinfection.

Presently, disinfection is completed with the use of chlorine to disinfect followed by treatment to remove the excess chlorine. New regulations will require replacement of this system with an ultraviolet system. This is expected to be required in the second five year period at an estimated cost of \$125,000.

E. Operations Building.

A temporary building is used to house testing equipment and certain records for the District. The frame building has reached the end of useful life and is too small for present requirements. A new building to house both water and sewage treatment functions of the District is recommended to be constructed in the next five year period at an estimated cost of \$155,000.

F. Blower Replacement.

The centrifugal blowers that supply air to the wastewater treatment process are 25 years old. Low flows to the plant to date have reduced wear on these units which are expected to last 20 years. These blowers will be used on a more continuous basis as the District grows and will need to be replaced in the second five-year period at an estimated cost of \$175,000 for blowers and controls.

G. Replace Polymer Feed.

The existing belt press dries sewage sludge to a point that the material can be hauled away for disposal. Polymers are added to increase process efficiency and the present polymer system requires replacement within the next five years at an estimated cost of \$25,000.

H. Data Collection System.

Operations at the plant require a monitoring system to document flows, air use, and power use. If reclaimed water is used, a monitoring system to determine actual use will be an advantage for providing information for design and operation and will help to limit liability of the District.

This system should be installed within the next five years at an estimated cost of \$45,000.

9. RECLAIMED WATER SYSTEM

A. General.

The District presently uses about 10 percent of water production to irrigate the greenbelt park and esplanades on Fry Road and Highland Knolls (a complete study is underway and will provide more exact figures). With the possibility of water shortages, as was the case with considerable aquifer draw-down in 2000, and with increased costs for surface water conversion, alternate sources of water are being considered. The most obvious source is to reclaim treated sewage effluent that now goes unused down Mason Creek, by further treating the water to meet TCEQ requirements for irrigation and safe use, and to use this water for irrigation.

Cost estimates and estimates of costs to convert to surface water, along with a surface water credit for use of reclaimed wastewater, indicate that, with time, reclaimed water will probably pay for itself.

B. Treatment.

In order to meet safety and health requirements for use of reclaimed wastewater, effluent will be filtered at the plant. Construction of the treatment facility should be completed within five years at an estimated cost of \$450,000.

C. Storage and Pumping.

The initial construction for reclaimed water use may include an amenity lake located in the park. If the lake is built, it will provide adequate storage for the first phase of the proposed reclaimed water system to irrigate the park and

surrounding esplanades. If the park does not include the lake, reclaimed water storage will be needed at the wastewater plant to allow production of reclaimed water throughout the day (application of reclaimed water can, by regulation, take place only at night). As the reclaimed water system expands to serve more users such as independent irrigation of lawns, additional storage and pumping will be needed. In the event the lake is not constructed in the park, it is estimated that \$200,000 will be required in the first five-year period. An additional \$200,000 is estimated to be used for system expansion in the second five-year period.

D. Transmission Lines.

Since reclaimed water cannot be transmitted in lines used for potable water, additional lines from the treatment plant to the proposed storage lake at the park will be necessary. In addition, lines along the esplanades will need to be converted to transmit reclaimed water.

These lines should be constructed along with the reclaimed water treatment facility within five years at an estimated cost of \$200,000.

E. Connections at Esplanades and Park and Service Connections.

These will be part of the overall development in the next five years at an estimated cost of \$50,000.

10. DISTRICT IMPROVEMENTS AND DEVELOPMENT

A. Park Development.

Park development is planned for the first five-year period at an estimated cost of \$1.111 million and is presently envisioned to be completed in three phases:

Phase 1 (\$593,000)

- Global Site Grading/Drainage/Seeding
- Rear Walkway Installation
- Rear Line Planting, Accent Group Planting, Site Furniture
- Playground Area Parking

Phase 2 (\$285,000)

- Playground
- Irrigation Pond

- Baseball Backstop/Field Preparation
- Fitness Stations
- Sand Volleyball Courts

Phase 3 (\$233,000)

- Fruit Tree Orchards
- Upgrade Planting/Irrigation @ Monuments
- Flagpoles and Plaques
- Purple Martin Houses
- Walkway Lighting @ Rear Walk
- Additional Parking

B. New Land Development.

The District has six tracts available for development totalling 45 acres more or less. The developer will pay for 100 percent of the construction cost of all improvements and the District will reimburse the developer up to 70 percent of the cost of water, sewer, and drainage improvements after the development provides additional taxable value to the District in the form of new homes or commercial structures built that is sufficient to support the reimbursement. The District will need as much as \$800,000 to make the anticipated reimbursement payments. It is estimated that \$300,000 will be required in the first five-year period with \$500,000 required for the second five-year period.

11. SURFACE WATER CAPITAL ASSESSMENT

The District is a member of the West Harris County Regional Water Authority (WHCRWA) which is viewed by subsidence legislation as a “super MUD.” The WHCRWA has developed a Groundwater Reduction Plan that converts the District’s region to 30 percent surface water by 2010. Surface water will be purchased from the City of Houston and the City of Houston will provide treatment facilities, and some transmission lines. The cost of the surface water and facilities will be charged to the WHCRWA and, in turn, to the individual participating MUDs.

The 30 percent conversion requirement applies to the WHCRWA as an entity. Under the WHCRWA’s Groundwater Reduction Plan, Districts close to the transmission lines will probably be converted to surface water and MUDs away from transmission lines (probably including Nottingham Country) will continue to use some or all groundwater at rates that will insure that the WHCRWA meets surface water conversion requirements as a region. Costs for development are borne by all participants on a proportionate share of costs basis. In other words,

while the District may not actually use surface water, a proportionate share of costs to pay for the surface water purchased from the City of Houston by WHCRWA are assessed to the District because the District receives the benefit of other Districts' conversion to surface water. Presently, these costs are included as a separate line item on the water bill and is paid by the user as part of the bill. Assessments for initial development are billed at a rate of \$0.20 per 1,000 gallons of water used. However, costs will rise to an estimated \$0.53 per 1,000 gallons in January, 2003 and will rise to an estimated \$1.35 per 1,000 gallons as the conversion process and development proceeds.

If the assessment is paid as part of the water bill, the costs are clearly not deductible from personal income taxes. If, on the other hand, the District can fund any of these costs with a bond issue payable from ad valorem tax revenue, a portion of the costs to the residential user may be tax deductible. This is under consideration by the District and will be acted on in the future. If the tax route is desired, the following calculation is applicable. Annual water production will be on the order of 500,000 thousand gallons. At an anticipated rate of \$1.35 per thousand gallons, the annual assessment is estimated at about \$675,000 (at 2200 connections, the average annual cost per connection is \$306.82 or an average monthly tax increase of \$25.57 per connection. At 2300 connections, average annual cost is \$270.00 and \$22.50 monthly per connection).

It should be understood that these numbers are estimates based on the best information available at the time of this writing and will, probably, require adjustment as better information becomes available. The District does not make any representations as to a resident's ability to deduct all or a portion of the resident's ad valorem taxes. Residents should consult a tax advisor.

12. COST SUMMARY

See Appendix A.

13. PROJECT PRIORITIZATION

Appendix A is constructed to allow for the prioritization of projects with the understanding that input from the Board and consultants will be used to develop a system to review project costs and to develop finance options for the projects. The prioritizations reflected in the Appendix are subject to change at the discretion of the board as circumstances require.

14. FINANCIAL OVERVIEW (30 SEPTEMBER, 2001 AUDIT)

Three areas will be discussed followed by several alternatives for financing.

- District Revenue
- District Expenditures
- District Bond Maturities and Payment Obligations

15. DISTRICT REVENUES

Major sources of revenue are water and sewer service charges, property taxes allocated for maintenance and operations (“M & O”), and property taxes allocated for debt service on bonds issued for capital improvements.

A. Water and Sewer Services.

Monthly water rates are \$16.00 minimum for the first 8,000 gallons; \$1.60 per 1,000 gallons from 8,000 to 20,000 gallons, and \$1.90 per 1,000 gallons for use above 20,000 gallons.

Wastewater disposal and treatment is billed at a flat rate of \$16.00 per month per connection.

Commercial water rates are the same as for residential users and wastewater rates are \$16.00 for the first 15,000 gallons of metered water, \$1.60 per 1,000 gallons of metered water from 15,000 to 20,000 gallons, and \$1.90 per 1,000 gallons of metered water for use over 20,000 gallons per month.

Additionally, a surcharge for surface water conversion is added directly to water charges. At the time of this writing a surcharge of \$0.20 per 1,000 gallons of metered water is added and remitted to the West Harris County Regional Water Authority. These charges, as discussed previously, will rise to an estimated \$1.35 per 1,000 gallons pumped by the District with time and at a rate to be determined by progress on development of surface water treatment and distribution alternatives. Additional discussion of the costs of surface water conversion with alternatives will follow.

The last audit showed annual revenue from water services as \$674,659 (average of \$1.98

per thousand gallons) and a sewer service revenue of \$330,801 (average of \$0.97 per thousand gallons of metered water, although all metered water does not reach the sewage treatment plant, especially during heavy irrigation periods).

B. Property Tax Rate.

For fiscal year 2002, the rate is \$0.550 per \$100 of property evaluation. The tax rate includes \$0.420 for debt service which can only be used to retire bonded indebtedness and \$0.130 for maintenance and operations (“M & O”). The maximum M & O tax authorized by the voters in the District is \$0.25 per \$100 valuation. District taxable property valuation for fiscal year 2002 is \$454,795,540.

Property tax rate for the audited fiscal year 2001 was \$0.580 per \$100 of property evaluation. Tax rate of \$0.580 includes \$0.490 for debt service which can only be used to retire bonded indebtedness and \$0.090 for M & O.

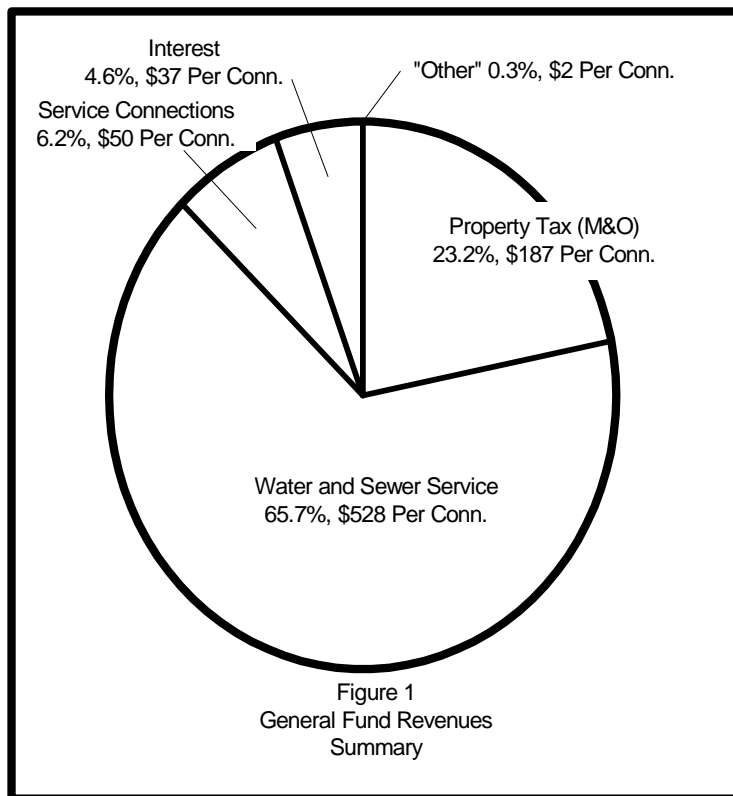
C. Revenue Summary.

Table 1. Revenues for FY 2001

General Fund ⁽¹⁾				
	<u>Income, \$</u>	<u>% Sub Total</u>	<u>% Grand Total</u>	<u>Average Per Connection</u> ⁽⁴⁾
Property Tax (M & O)	355,704	23.2	9.6	187
Water Service	674,659	44.1	18.1	354
Sewer Service	330,801	21.6	8.9	174
Regional Water Fee	4,710	0.3	0.1	2
Penalty and Interest	20,752	1.4	0.6	11
Tap Conn. and Inspection	94,521	6.2	2.5	50
Interest on Deposits	49,532	3.2	1.3	26
Sub Total	1,530,679	100.0	41.1	804
Debt Service ⁽²⁾				
	<u>Income, \$</u>	<u>% Sub Total</u>	<u>% Grand Total</u>	<u>Per \$100 Value</u> ⁽⁵⁾
Property Tax	1,942,267	91.4	52.2	0.484
Penalty and Interest	38,089	1.8	1.0	0.009
Interest on Deposits	134,480	6.3	3.6	0.034
Accrued Interest on Bonds	10,679	0.5	0.3	0.003
Sub Total	2,125,515	100.0	57.1	0.530
Capital Projects ⁽³⁾				
	<u>Income, \$</u>			
Interest on Deposits	66,009		1.8	
Grand Total	3,722,203		100.0	

- (1) General revenue funds available for M&O. Funds for Park not available from property tax.
- (2) Debt service revenues limited to service on bonds (debt).
- (3) Capital projects funds reserved for specific projects (ex., water tank renovation, etc.)
- (4) Based on estimated 1905 connections.
- (5) Based on 2001 valuation of \$4,011,443 (100's).

C. Revenue Summary, Cont'd.



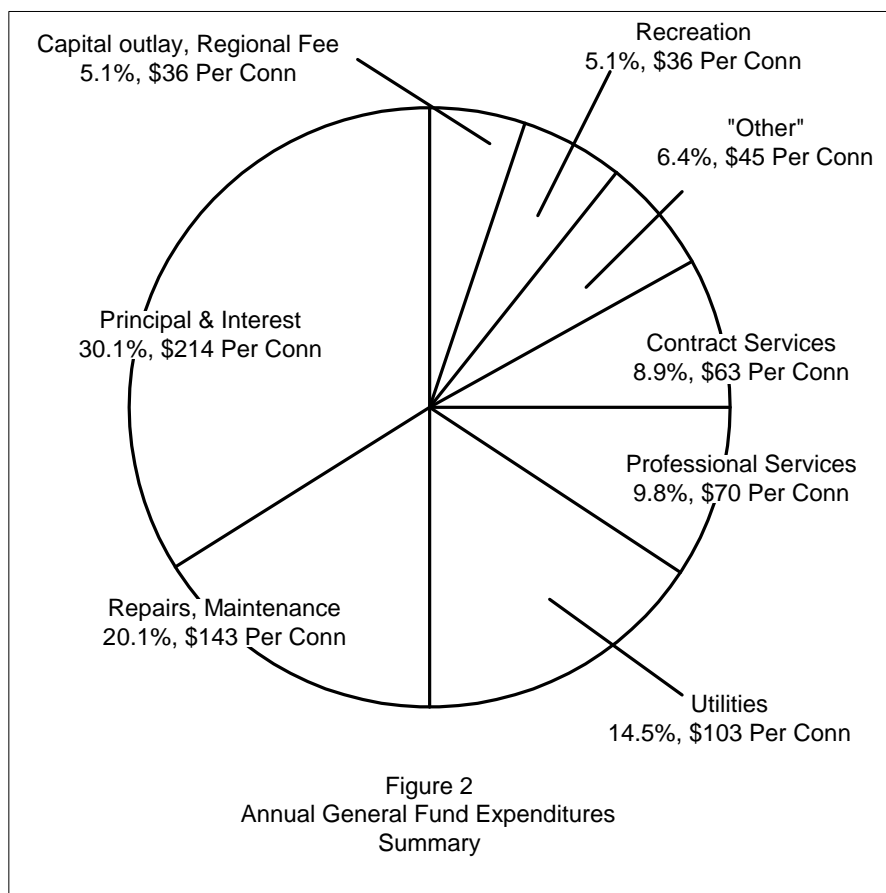
16. DISTRICT EXPENDITURES

Table 2. Expenditures for FY 2001

General Fund ⁽¹⁾	Expenditure, \$	% Sub Total	% Grand Total	Average Per Connection ⁽⁴⁾
Regional Water Fee	22,249	1.6	0.5	12
Professional Fees	133,332	9.8	3.0	70
Contract Services	120,526	8.9	2.7	63
Utilities	196,155	14.5	4.3	103
Recreation Facilities	68,927	5.1	1.5	36
Repairs and Maintenance	272,257	20.1	6.0	143
Other Expenditures	86,118	6.4	1.9	45
Capital Outlay	46,405	3.4	1.0	24
Principal Retirement	395,670	29.2	8.8	208
Interest	12,516	0.9	0.3	7
Sub Total	1,354,155	100.0	30.0	711
Debt Service ⁽²⁾	Expenditure, \$	% Sub Total	% Grand Total	Per \$100 Value ⁽⁵⁾
Professional Services	14,281	0.7	0.3	0.004
Contract Services	38,550	1.8	0.9	0.010
Principal Retirement	1,225,000	57.3	27.1	0.305
Interest	856,252	40.1	19.0	0.213
Other Expenditures	2,264	0.1	0.1	0.001
Sub Total	2,136,347	100.0	47.3	0.533
Capital Projects ⁽³⁾	Expenditure, \$			
Capital Outlay	1,025,497	100.0	22.7	0.256
Grand Total	4,515,999		100.0	1.126

- (1) General funds available for M&O. Funds for Park not available from property tax.
- (2) Debt service expenditures limited to service on bonds (debt).
- (3) Capital projects funds reserved for specific projects (ex., water tank renovation, etc.)
- (4) Based on estimated 1905 connections.
- (5) Based on 2001 valuation of \$4,011,443 (100's).

16. DISTRICT EXPENDITURES, CONT'D.



17. REVENUE COMPARED WITH EXPENDITURES

Table 3. Revenue / Expense Summary for FY 2001

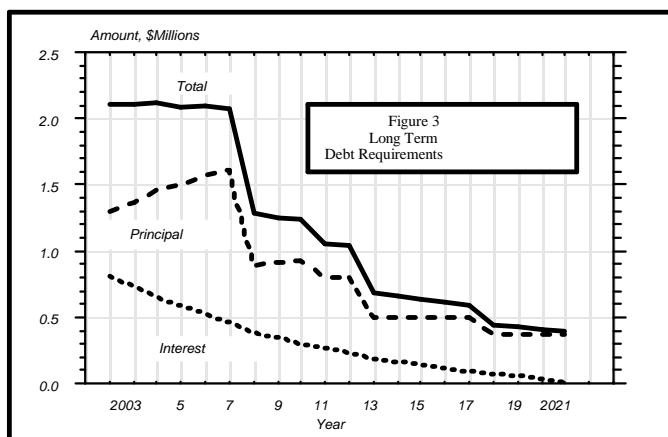
	<u>General</u>	<u>Capital</u>	<u>Debt Service</u>
Income	1,530,679	66,009	2,125,515
Expenditures	1,354,155	1,025,497	2,136,347
Difference	176,524	(959,488)	(10,832)

Note: Bond sale proceeds and excess water and sewer service fund balances accumulated in prior years offset this deficit

18. LONG TERM DEBT SERVICE REQUIREMENTS

The District has eight bond issues outstanding (series 1991, 1992, 1992-A, 1996, 1997, 1998, 1991, and 2001). Financing through September, 2001, shows scheduled obligations through the year 2021.

Total long term debt requirements are shown in Appendix B. A graphical depiction of requirements is shown on Figure 3.



19. PROJECTED EXPENDITURES AND REQUIRED REVENUE; “DO NOTHING” OPTION (EXAMPLE WITH ASSUMPTIONS AND CALCULATION RATIONALE) – (APPENDIX D).

A. Connections.

Based on 1950 connections in 2002 with an increase of 50 connections per year for five years to an assumed maximum of 2200 connections in 2007.

Table 4. Connections Projections

<u>Year</u>	<u>Number of Connections</u>
2001	1905
2002	1950
2003	2000
2004	2050
2005	2100
2006	2150
2007	2200
2008	2200
2009	2200
2010	2200
2011	2200
2012	2200

B. District Valuation.

For 2002 is based on data from Tax Assessor/Collector at \$454,795,540 (\$4,547,955 \$100's). It is assumed annual increases of 4% will exist throughout the analysis period.

C. Debt Service and M&O Tax Rates.

Rates for 2002 are from the present tax rate order. Note that rates can be adjusted if necessary to accommodate capital improvement options.

D. General Fund Revenue.

(1) Property Tax Calculation. (Value in 100s)x(M&O Rate) = (\$4,011,443)(0.09) = \$361,030. The audit shows \$355,704 with the difference attributed to less than 100% collection. Calculations are based on 99% collection.

(2) Water and Sewer Service. Collected value of \$1,005,460 divided by 1903 connections = \$528.36 per connection. \$528 per connection will be used for projected sewer and water service charges. It should be noted that this revenue can be changed with a change in the Rate Order.

(3) Regional Fee for the audit year was \$4,710 that represented "start-up" charges for The West Harris County Regional Water Authority (WHCRWA). Presently, the Authority assesses the District \$0.18 per 1,000 gallons of water produced and \$0.20 is passed on to users with the difference to account for water that is produced but not billed such as wash water at the sewage treatment plant, etc.

(WHCRWA, which includes the District, expects final surface water conversion charges to be on the order of \$1.35 per 1,000 gallons produced. It is estimated that the District uses approximately 500 million gallons (500,000 thousand gallons) per year which amounts to \$675,000 when the full assessment is applied in the year 2010. For this study, it was assumed that WHCRWA would assess the District \$90,000 for the year 2002. Subsequent surface water assessments were based on straight-line proportioning between 2003 and 2010.

$$(\$675,000 - \$90,000) \div 8 \text{ years} = \$73,125 \text{ increase per year.}$$

Note that this value will be shown as both revenue and expenditures since the assessment is assumed to be passed on to

the user as part of the normal water bill. However, it should also be noted that actual amount of the assessment may change as the surface water conversion procedure more fully develops and it is also possible that the Board will decide upon a different method of assessing these charges to the user such as a tax assessment that can be deducted from the user's federal taxes.

(4) Penalties and Interest revenues are derived from late fees from delinquent users. This amounts to $\$20,752 \div 1903 =$ about \$11.00 per connection.

(5) Tap and Connection fees are charged for new connections. The audit shows 77 new connections for an average fee of $\$94,521 \div 77 =$ about \$1,225 per new connection.

(6) Interest on Deposits is derived from water and sewer collection deposits and interest on investments. This amounts to $(\$49,532 \div 1903) =$ approximately \$26 per connection for the audited year with the understanding that for projection purposes, this value may require changes appropriate with other assumptions.

E. General Fund Expenditures.

(1) Professional Fees. $\$133,332 \div 1905 =$ about \$70 per connection.

(2) Contract Fees. $\$120,576 \div 1905 =$ about \$63 per connection.

(3) Utilities. $\$196,155 \div 1905 =$ about \$103 per connection.

(4) Regional Fee. This is approximately the same fee used for revenues (with minor adjustment to compensate for unbilled water) and is passed from the user to WHCRWA.

(5) Recreation (Park). This is shown as \$68,297 for the audit year. Present budgets estimate \$30,000 per year and are used in Appendix C with the understanding that this could be a variable charge if the Board so decides.

(6) Repairs and Maintenance. $\$272,257 \div 1905 =$ about \$143 per connection.

(7) "Other Expenditures." $\$86,118 \div 1905 =$ about \$45 per connection.

(8) Capital Outlay. This is understood to be used primarily to purchase and install meters and is based on \$645 per new connection.

(9) Principal Retirement, Park Improvements, Etc. Costs estimated for park improvements discussed in Section 9 with the note that tax revenues (debt service and maintenance and operations taxes) cannot be used for park improvements.

(10) Principal Retirement. It is understood that this value (\$395,670) was used to retire a bank loan for Park purchase and development. This item is open as a variable in projected revenue / expenditures and could, conceivably, be used to establish a sinking fund to finance additional projects.

F. Debt Service Revenue.

(1) Property Tax. (Value in 100s) (Debt Rate) = (\$4,011,443) (0.49) = \$1,965,607. The audit shows \$1,942,267 with the difference attributed to less than 100% collection.

(2) Penalty and Interest. Assessed for delinquent payments of property tax. $\$38,089 \div 1905 =$ about \$20 per connection.

(3) Interest on Deposits. Assume \$1,942,267 deposited at 7% rate = approximately \$136,000. Use 7% on tax revenue.

(4) Accrued Interest. Interest accrued on deposits of bonds at date of sale. For the audit year assume bond value of \$2,270,000. Interest = about 0.5%. Not significant to be used in projections.

G. Debt Service Expenditures.

(1) Professional and Contract Services. This is about 5% of capital project expenditures and includes delinquent tax attorneys and tax collector fees.

(2) Principal Retirement. Based on data from audit as shown in Appendix B. Note that this number will need to be modified if projections show additional bond issues. It is suggested that annual costs of proposed bond issues be estimated based on principal times the capital recovery factor (CRF) for 20 years at 5% interest where $CRF = 0.080243$. This value should be entered in the row, "New Capital Project Service" for each year for each new project to be financed with property tax funds.

- (3) Interest (like Principal Retirement) is based on Appendix B.
- (4) “Other” is assumed to be a constant \$2,500.

H. Capital Projects.

- (1) Finance Method. Bond proceeds repaid by taxes.
- (2) Expenditure is capital cost which could be financed with tax or revised water rates. If a bond issue and Property tax is used, enter the estimated annual debt service in the “New Capital Projects” row.
- (3) Interest. If the capital project is financed with a bond issue, this value for unexpended funds can be calculated as 3% of the bond issue.

I. Balances.

Placed in the worksheet as a summary for information that can be used for “what-if” calculations for water and sewer services and tax rates.

20. FINANCIAL MODEL, APPENDIX D WORKSHEET

The financial model in Appendix D was developed to provide a basis for “what-if” calculations for proposed capital project costs and consideration of financial methodologies such as variable tax and service rates.

The worksheet is in Microsoft Excel 98 ® and is locked in order to prevent unwanted changes in calculation algorithms but can be easily revised if necessary. The present form shows cells outlined in red that require input and will automatically calculate balances for General Fund, Debt Service, and Capital Projects.

21. AN EXAMPLE ON USE OF THE FINANCIAL MODEL (APPENDIX D)

- A.** Projects from Appendix A are summarized in Tables 1 and 2 of Appendix C.
- B.** Table 2 of Appendix C sorts the projects by year. This uses a Microsoft Excel® spreadsheet and after sorting, was “fine tuned” to provide an approximate cost balance per year through year 10.

C. Worksheet 1 (Appendix D), year 1 assumed to be 2003.

(1) It is assumed that some combination of M&O, bond sales financed with a debt service tax and excess general funds could be used to finance the projects. However, the model, as developed, assumes that debt service will not be used to finance any of the projects.

(2) Capital improvement project total costs from Table 2, Appendix C (\$500,000) was entered on line 43 and park improvement costs of \$593,000 was entered on line 23.

Note that with no entries for debt service and M&O tax (lines 4 and 5), Balance for Debt Service is negative \$2,095,147 (line 39) and Balance for Capital Projects is negative \$465,000 (line 46). Likewise, Grand Balances (lines 49 and 50) are negative.

However, debt retirement obligations of \$2,135,147 (line 36) must, by law, be met with a debt service tax. With trial and error entries in line 4, it was found that a debt service tax of 0.399 will approximately balance the obligation (line 40).

If a total tax rate of \$0.520 is desired, M&O of \$0.121 will result (line 5). This will generate a M&O revenue of \$600,410 (line 42).

Note that while a 2003 deficit of \$137,993 exists (line 49), a cumulative unallocated balance of \$1,269,196 exists.

D. Worksheet 2 (Appendix D) is used to formulate “what-if” evaluations of Capital Improvement Project costs through 2012 balanced with appropriate tax rates.

Note that this example shows a consistent tax reduction, completion of all projects, and pay-off of all debt obligations by 2012.

End.

APPENDICES

Project Group	Ref	Description	Prior-ity	1 to 5 Years		Prior-ity	5 to 10 Years	
				Cost, \$	% Total		Cost, \$	% Total
Water Supply	3B	Rehabilitation of Well No. 2		400,000				
	3C	Well No. 3					1,000,000	
		<i>Sub-Total</i>		400,000	6.8		1,000,000	24.9
Plant Security	4	All Plants		250,000	4.2			
Water Plant	5A	Data System/Analyzers		35,000				
	5B	Storage Tanks					100,000	
	5C	Convert to Bleach for Disinfection		30,000				
	5D	Rehabilitate Gravity Filters		500,000				
	5E	Additional Filters		600,000			600,000	
	5F	Rehabilitate Backwash System		200,000				
	5G1	Replace Small Booster Pump		50,000				
	5G2	Replace Large Booster Pumps					150,000	
	5H	Replace Clearwell Pumps		30,000			30,000	
	5I	Add Hydropneumatic Tank					60,000	
		<i>Sub-Total</i>		1,445,000	24.5		940,000	23.4
Water Distribution	6B	System Interconnects		75,000				
	6C	Mason Creek Undercrossing		95,000				
	6D	Valve Survey and Map		15,000				
	6E	Meter Replacement		150,000			150,000	
		<i>Sub-Total</i>		335,000	5.7		150,000	3.7
Wastewater Collection	7A	Manhole Survey/Inspection/Map		50,000				
	7B	CCTV Survey		200,000			200,000	
	7C	I/I Reduction		375,000			375,000	
	7D	Pump Replacement					100,000	
		<i>Sub-Total</i>		625,000	10.6		675,000	16.8

Project Group	Ref	Description	Priority	1 to 5 Years		Priority	5 to 10 Years	
				Cost, \$	% Total		Cost, \$	% Total
Wastewater Treatment	8A	Provide Plant Water System		50,000				
	8B	Fine Bubble Aeration		250,000				
	8C	Replace Clarifier Mech.					250,000	
	8D	UV Disinfection					125,000	
	8E	Operations Building		155,000				
	8F	Replace Blowers					175,000	
	8G	Replace Poly-Feed		25,000				
	8H	Data Collection System		45,000				
		<i>Sub-Total</i>		525,000	8.9		550,000	13.7
Reclaimed Water System	9B	Treatment		450,000				
	9C	Storage & Pumping		200,000			200,000	
	9D	Transmission		200,000				
	9E	Meters/Service Connections		50,000				
			<i>Sub-Total</i>		900,000	15.3		200,000
District Improvements	10A	Park Development w/ Lake		1,111,000				
	10B	New Developments		300,000			500,000	
			<i>Sub-Total</i>		1,411,000	24.0		500,000
Totals		Total		5,891,000	100.0		4,015,000	100.0
Surface Water Capital Assessment				\$3,380,000			\$3,380,000	

Appendix B. Long Term Debt Requirements in \$

Due Fiscal Year (30 Sept.)	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2002	1,300,000	811,740	2,111,740
2003	1,370,000	737,647	2,107,647
2004	1,460,000	658,500	2,118,500
2005	1,495,000	593,133	2,088,133
2006	1,570,000	528,034	2,098,034
2007	1,610,000	458,217	2,068,217
2008	895,000	386,525	1,281,525
2009	910,000	346,364	1,256,364
2010	930,000	305,267	1,235,267
2011	795,000	262,848	1,057,848
2012	815,000	226,692	1,041,692
2013	500,000	189,444	689,444
2014	500,000	165,718	665,718
2015	500,000	141,907	641,907
2016	500,000	118,093	618,093
2017	500,000	94,282	594,282
2018	375,000	70,250	445,250
2019	375,000	52,688	427,688
2020	375,000	35,125	410,125
2021	375,000	17,562	392,562

**Appendix C. Table 1.
Capital Improvement Projects From Appx. A Prioritized**

Ref	Description	Priority/Year	Cost, \$	Total, \$
3B	Rehabilitation of Well No. 2	2	400,000	
3C	Well No. 3	6	1,000,000	1,400,000
4A	All Plants	2	250,000	250,000
5A	Data System/Analyzers	2	35,000	
5B	Storage Tanks	7	100,000	
5C	Convert to Bleach for Disinfection	2	30,000	
5D	Rehabilitate Gravity Filters	1	500,000	
5E	Additional Filters	4	600,000	
5E	Additional Filters	7	600,000	
5F	Rehabilitate Backwash System	2	200,000	
5G1	Replace Small Booster Pump	2	50,000	
5G2	Replace Large Booster Pumps	7	150,000	
5H	Replace Clearwell Pumps	2	30,000	
5H	Replace Clearwell Pumps	7	30,000	
5I	Add Hydropneumatic Tank	7	60,000	2,385,000
6D	Valve Survey and Map	3	15,000	
6E	Meter Replacement	4	150,000	
6E	Meter Replacement	8	150,000	315,000
7A	Manhole Survey/Inspection/Map	2	50,000	
7B	CCTV Survey	3	200,000	
7B	CCTV Survey	8	200,000	
7C	I/I Reduction	4	375,000	
7C	I/I Reduction	8	375,000	
7D	Pump Replacement	8	100,000	1,300,000
8A	Provide Plant Water System	3	50,000	
8B	Fine Bubble Aeration	3	250,000	
8C	Replace Clarifier Mech.	9	250,000	
8D	UV Disinfection	9	125,000	
8E	Operations Building	3	155,000	
8F	Replace Blowers	10	175,000	
8G	Replace Poly-Feed	3	25,000	
8H	Data Collection System	3	45,000	1,075,000
9B	Reclaimed Water Treatment	5	450,000	
9C	Reclaim. Storage & Pumping	5	200,000	
9C	Reclaim. Storage & Pumping	9	200,000	
9D	Reclaim. Transmission	5	200,000	
9E	Reclaim. Meters/Service Conn.	3	50,000	1,100,000
10A	Park Improvements Phase 1	1	593,000	
10A	Park Improvements Phase 2	3	285,000	
10A	Park Improvements Phase 3	5	233,000	
10B	New Land Development	4	300,000	
10B	New Land Development	10	500,000	1,911,000

Totals >>>

9,736,000

9,736,000

**Appendix C. Table 2.
Capital Improvement Projects From Appx. A; Prioritized and Sorted**

Ref	Description	Priority/Year	Cost	Total, \$
5D	Rehabilitate Gravity Filters	1	500,000	
10A	Park Improvements Phase 1	1	593,000	1,093,000
3B	Rehabilitation of Well No. 2	2	400,000	
4A	All Plants	2	250,000	
5A	Data System/Analyzers	2	35,000	
5C	Convert to Bleach for Disinfection	2	30,000	
5F	Rehabilitate Backwash System	2	200,000	
5G1	Replace Small Booster Pump	2	50,000	
5H	Replace Clearwell Pumps	2	30,000	
7A	Manhole Survey/Inspection/Map	2	50,000	1,045,000
6D	Valve Survey and Map	3	15,000	
7B	CCTV Survey	3	200,000	
8A	Provide Plant Water System	3	50,000	
8B	Fine Bubble Aeration	3	250,000	
8E	Operations Building	3	155,000	
8G	Replace Poly-Feed	3	25,000	
8H	Data Collection System	3	45,000	
9E	Reclaim. Meters/Service Conn.	3	50,000	
10A	Park Improvements Phase 2	3	285,000	1,075,000
5E	Additional Filters	4	600,000	
6E	Meter Replacement	4	150,000	
10B	New Land Development	4	300,000	1,050,000
7C	I/I Reduction	5	375,000	
9B	Reclaimed Water Treatment	5	450,000	
9C	Reclaim. Storage & Pumping	5	200,000	
9D	Reclaim. Transmission	5	200,000	1,225,000
3C	Well No. 3	6	1,000,000	1,000,000
5B	Storage Tanks	7	100,000	
5E	Additional Filters	7	600,000	
5G2	Replace Large Booster Pumps	7	150,000	
5H	Replace Clearwell Pumps	7	30,000	
5I	Add Hydro-Pneumatic Tank	7	60,000	
10A	Park Improvements Phase 3	7	233,000	1,173,000
6E	Meter Replacement	8	150,000	
7B	CCTV Survey	8	200,000	
7C	I/I Reduction	8	375,000	
7D	Pump Replacement	8	100,000	825,000
8C	Replace Clarifier Mech.	9	250,000	
8D	UV Disinfection	9	125,000	
9C	Reclaim. Storage & Pumping	9	200,000	575,000
8F	Replace Blowers	10	175,000	
10B	New Land Development	10	500,000	675,000

Totals >>>

9,736,000

9,736,000

Remarks: Appendix D, Worksheet 2

1	Year	2001 Audit	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2	Connections	1,905	1,950	2,000	2,050	2,100	2,150	2,200	2,200	2,200	2,200	2,200	2,200
3	\$ Value (100s)	4,011,443	4,771,219	4,962,068	5,160,550	5,366,972	5,581,651	5,804,917	6,037,114	6,278,599	6,529,743	6,790,932	7,062,570
4	Debt Service Tax \$/100	0.490	0.420	0.395	0.395	0.370	0.360	0.340	0.250	0.190	0.180	0.150	0.140
5	M&O Tax	0.090	0.130	0.155	0.155	0.150	0.160	0.180	0.190	0.200	0.150	0.100	0.070
6	Total Tax	0.580	0.550	0.550	0.550	0.520	0.520	0.520	0.440	0.390	0.330	0.250	0.210
7	General Fund Revenue, \$												
8	Water/Sewer Service	1,005,460	1,029,600	1,056,000	1,082,400	1,108,800	1,135,200	1,161,600	1,161,600	1,161,600	1,161,600	1,161,600	1,161,600
9	Regional Fee	4,710	90,000	163,000	236,000	309,000	382,000	455,000	528,000	601,000	675,000	675,000	675,000
10	Penalty/Interests	20,752	21,450	22,000	22,550	23,100	23,650	24,200	24,200	24,200	24,200	24,200	24,200
11	Tap Connect.	94,521	55,125	61,250	61,250	61,250	61,250	61,250	0	0	0	0	0
12	Interest on Deposits	49,532	48,750	50,000	51,250	52,500	53,750	55,000	55,000	55,000	55,000	55,000	55,000
13	Sub Total	1,174,975	1,244,925	1,352,250	1,453,450	1,554,650	1,655,850	1,757,050	1,768,800	1,841,800	1,915,800	1,915,800	1,915,800
14	General Fund Expenditures, \$												
15	Prof. Fees	133,332	136,500	140,000	143,500	147,000	150,500	154,000	154,000	154,000	154,000	154,000	154,000
16	Contract Fees	120,526	122,850	126,000	129,150	132,300	135,450	138,600	138,600	138,600	138,600	138,600	138,600
17	Utilities	196,155	200,850	206,000	211,150	216,300	221,450	226,600	226,600	226,600	226,600	226,600	226,600
18	Regional Fee	22,249	90,000	163,000	236,000	309,000	382,000	455,000	528,000	601,000	675,000	675,000	675,000
19	Recreation	68,927	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
20	Repairs / Maint.	272,257	278,850	286,000	293,150	300,300	307,450	314,600	314,600	314,600	314,600	314,600	314,600
21	"Other"	86,118	87,750	90,000	92,250	94,500	96,750	99,000	99,000	99,000	99,000	99,000	99,000
22	Capital Outlay	46,405	29,025	32,250	32,250	32,250	32,250	32,250	0	0	0	0	0
23	Principal Retirement, Park, Etc.	395,670	0	593,000	285,000	285,000	285,000	285,000	233,000	233,000	233,000	233,000	233,000
24	Sub Total	1,341,639	975,825	1,666,250	1,167,450	1,546,650	1,355,850	1,450,050	1,490,800	1,796,800	1,637,800	1,637,800	1,637,800
25	General Fund Balance, \$	(166,664)	269,100	(314,000)	286,000	8,000	300,000	307,000	278,000	45,000	278,000	278,000	278,000
26	Cum. General Fund Balance, \$	NA	975,825	661,825	947,825	955,825	1,255,825	1,562,825	1,840,825	1,885,825	2,163,825	2,441,825	2,719,825
27	Debt Service Revenue, \$												
28	Property Tax (Debt Service)	1,942,267	1,983,873	1,940,417	2,018,033	1,965,922	1,989,301	1,953,935	1,494,186	1,181,004	1,163,600	1,008,453	978,872
29	Penalty & Interest	38,089	39,000	40,000	41,000	42,000	43,000	44,000	44,000	44,000	44,000	44,000	44,000
30	Interest on Deposits	134,480	138,871	135,829	141,262	137,615	139,251	136,775	104,593	82,670	81,452	70,592	68,521
31	Accrued Interest	10,679	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
32	Sub Total	2,125,515	2,161,744	2,116,246	2,200,296	2,145,537	2,171,552	2,134,711	1,642,779	1,307,675	1,289,052	1,123,045	1,091,393
33	Debt Service Expenditures, \$												
34	Prof. / Contract Services	52,831	0	25,000	52,250	39,500	52,500	61,250	50,000	47,000	41,250	28,750	33,750
35	Principal Retirement	1,225,000	1,300,000	1,370,000	1,460,000	1,495,000	1,570,000	1,610,000	895,000	910,000	930,000	795,000	815,000
36	Interest	856,252	811,740	737,647	658,500	593,133	528,034	458,217	386,525	346,364	305,267	262,848	226,692
37	Other	2,264	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
38	Sub Total	2,136,347	2,114,240	2,135,147	2,173,250	2,130,133	2,153,034	2,131,967	1,334,025	1,305,864	1,279,017	1,089,098	1,077,942
39	Debt Service Balance, \$	(10,832)	47,504	(18,901)	27,046	15,404	18,518	2,744	308,754	1,811	10,035	33,947	13,451
40	Cum. Debt Service Balance, \$	(10,832)	36,672	17,771	44,816	60,220	78,737	81,481	390,235	392,046	402,081	436,028	449,479
41	Capital Projects, \$												
42	M&O Revenue	361,030	620,258	769,121	799,885	805,046	893,064	1,044,885	1,147,052	1,255,720	979,461	679,093	494,380
43	Expenditure	1,025,497	0	500,000	1,045,000	790,000	1,050,000	1,225,000	1,000,000	940,000	825,000	575,000	675,000
44	Interest	66,009	0	15,000	31,350	23,700	31,500	36,750	30,000	28,200	24,750	17,250	202,500
45	Sub Total Capital Expenditure	959,488	0	485,000	1,013,650	766,300	1,018,500	1,188,250	970,000	911,800	800,250	557,750	472,500
46	Capital Proj. Balance, \$	(598,458)	620,258	284,121	(213,765)	38,746	(125,436)	(143,365)	177,052	343,920	179,211	121,343	21,880
47	Cum. Capital Proj. Balance, \$	(598,458)	21,800	305,921	92,156	130,902	5,466	(137,899)	39,153	383,073	562,284	683,627	705,507
48	Grand Balances: \$												
49	Current Year	(775,954)	327,572	9,692	422,972	199,122	384,204	250,583	707,388	820,118	1,242,365	1,397,655	1,432,987
50	Cumulative	1,099,617 *	1,427,189	1,436,881	1,859,853	2,058,975	2,443,179	2,693,762	3,401,150	4,221,268	5,463,633	6,861,288	8,294,275

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