water system, water main locations and sizes, contour elevations, service lines, valves and fire hydrant locations. For wastewater, the utility master plan must also show the boundary of the wastewater system, wastewater main locations and sizes, external collection system mains, other wastewater facilities as required, elevation contours and the wastewater service area. For properties that have areas of unplanned use, the demand must be calculated at **four EDU's** per acre unless the engineering report specifies otherwise.

## 5.5 PHASED UTILITY MASTER PLANS

If the developer customer's water or wastewater system is to be installed in phases or units, the developer customer must submit an overall utility master plan to BMWD for review and approval.

The overall utility master plan must be submitted before the first construction phase is submitted for plat approval. The overall utility master plan must show the development phases or units including the sequence and a timetable for build-out. The developer customer applicant must also provide BMWD with a digital version of the proposed recorded plat, as submitted for plat recordation and in a format acceptable to BMWD, for each phase or unit of the development project.

## 5.6 CONFORMANCE OF PLANS TO UTILITY MASTER PLAN

All water and wastewater system facilities to serve a proposed development must be designed and constructed in conformance with the approved utility master plan. Changes in the water and wastewater system design must be resubmitted to BMWD for approval.

## 5.7 TIMING REQUIREMENTS FOR SUBMISSION OF PLANS

Upon approval by BMWD of a utility service agreement, the developer customer has 36 months to complete the required utility master plan and to start construction. If the developer customer fails to complete these requirements within the 36-month period, the utility service agreement expires and a request for a new agreement must be submitted to BMWD. BMWD will enter into a new utility service agreement based on then-current regulations.

## 5.8 UTILITY SERVICE AGREEMENT REVIEW AND MAXIMUM TERM

Upon the initiation of construction of local or general benefit facilities, the utility service agreement will remain in effect for seven years from the date the agreement was issued. By the end of the seventh year, a revised utility master plan must be submitted to BMWD identifying any increase or decrease in planned EDU's within the project. If the revised utility master plan indicates a substantial increase in the EDU's for the tract, the developer must agree to develop the project in accordance with the then-current Utility Service Regulations or else the utility service agreement terminates. A substantial increase in EDU's is an amount that requires an increase in pipe size, the construction of a parallel main, the use of unanticipated package wastewater treatment plants or the development of additional production facilities, provided that these consequences are not the result of BMWD's borrowing of capacity designated for the developer customer's tract pursuant to the original approved utility master plan. If the developer customer meets the requirements set out herein and any additional requirements set out in the

utility service agreement, the utility service agreement will extend beyond the seven year period for a total period not to exceed 15 years from the effective date of the utility service agreement.

### 5.9 PROVISION OF SERVICE AFTER EXPIRATION OF 15-YEAR TERM

### 5.10 DEVELOPMENT LARGER THAN 1000 ACRES REQUIRING MORE THAN 15 YEARS TO DEVELOP

For developments greater than 1000 acres requiring more than 15 years to develop, the expiration date of the Utility Service Agreement can be extended beyond 15 years. The expiration date of the Utility Service Agreement for those qualifying as large developments will be determined prior to the issuance of the Utility Service Agreement.

### 5.11 WATER COMMITMENTS AND SEWER CONTRACTS WITHOUT EXPIRATION DATES

Water commitments and sewer contracts issued prior to the effective date of these regulations that do not have an expiration date remain valid for a period of 15 years from the effective date of these regulations.

## 6 PROCEDURES FOR WATER SERVICE AND WASTEWATER LATERAL CONNECTIONS

### 6.1 SERVICE REQUIREMENTS

The customer's contractor must install new water service lines and wastewater lateral connections. A customer requesting water or wastewater service must:

1. Obtain a BMWD connection or permit and execute an agreement for meter and service line installation or wastewater lateral connection.
2. Provide BMWD with acceptable documentation that the property is a properly platted lot.
3. Pay a pro-rata charge, if applicable.
4. Pay all applicable impact fees.
5. Pay a customer account deposit when required.
6. Pay other fees as required.

### 6.2 AUTHORIZED APPLICANTS

The property owner or the owner's authorized agent may make the application for installation or relocation of a water service line or private fire protection service line or installation or relocation of a wastewater lateral connection. A tenant, not acting as an agent for the owner of the property, may sign a contract for water or wastewater service only.

### 6.3 REQUIRED INFORMATION ON CUSTOMER APPLICATION

The customer must provide the service address, street name, legal description of the property to be served, the purpose for which the service is required, the service requirements, the size of the service line or wastewater lateral connection desired, the size of the meter desired, the projected water demand and/or wastewater discharge, and such other information as BMWD may reasonably require.

### 6.4 CUSTOMER'S RESPONSIBILITIES

BMWD will consider the information from the customer in the application for service as reliable. If there is an error in the application that causes improper size or location of a service line connection or wastewater lateral or improper meter installation, the customer must bear the cost of all required changes. As a condition of receiving service, the customer must pay any expense incurred by BMWD as a result of incorrect information received from the customer.

### 6.5 CONNECTION OR ADJUSTMENT PERMITS

A private contractor who meets BMWD insurance requirements may install or relocate a water service line, private fire protection service line or wastewater lateral and related appurtenances if BMWD approves the customer's request for a permit. The permit is conditioned upon the customer's compliance with all applicable service conditions and payment of all applicable fees.

### 6.6 RESPONSIBILITIES FOR CUSTOMER YARD PIPING

BMWD will maintain, repair and replace water service lines and meters from the distribution main to the outlet side of the meter, including the outlet side meter coupling. BMWD will maintain, repair and replace the wastewater laterals from the wastewater main to the property line or wastewater easement line. The customer is responsible for maintenance, repair and replacement of the yard piping extending from the outlet side of the meter coupling and from the property line or wastewater easement line throughout the remainder of the customer's property.

### 6.7 USE OF FIRE HYDRANTS PROHIBITED

Use of water from fire hydrants is prohibited except for the following:

- Fire protection
- City of San Antonio street sweepers
- Contractors working directly for BMWD, when the exception is part of the contract.
- Customers and their contractors who have obtained a fire hydrant meter as provided in section 8.9.

## 7 WATER SERVICE LINES

### 7.1 INSTALLATION AND LOCATION

In new residential subdivisions, each lot must be provided with a water service line when the subdivision's water system is constructed. Installation of service lines may be delayed for nonresidential lots until development occurs. BMWD must approve the location of all service lines.

Service lines may not be extended to lots on the opposite side of the street from a water distribution main if the street right-of-way exceeds 85 feet unless BMWD determines that no other line routing is feasible. In this case, a main extension may be required across the street before the service line starts.

### 7.2 SERVICE LINES ON LARGE DIAMETER MAINS

A customer service line smaller than six inches in diameter may not be connected to a transmission or distribution main exceeding 16 inches in diameter. The customer must pay the cost of any local benefit main extension that is required to connect the service line to a main of appropriate size. BMWD will determine the main from which service may be extended and

whether the local benefit main will be extended from the transmission main or from the nearest existing local benefit main. BMWD staff may approve an exception to this policy if it determines that unusual conditions, use, or location make extending a local benefit main infeasible. Any exceptions must be in writing and approved by both parties.

### 7.3 REQUIREMENT FOR MAIN EXTENSIONS

In order to provide water service to a property, the customer is required to construct an approach main from the nearest available main to their property, and a border main across the entire frontage of their property if:

1. The property in not fully fronted by an existing water distribution main 16-inches or less in diameter, or
2. The nearest water main is on the opposite side of the street and the street right-of-way exceeds 85-feet.

BMWD may waive the requirement for a border main across the entire frontage of the tract if the customer can provide documentation that extension of the main beyond the customer's property will not be required to serve future customers.

### 7.4 VALVE REQUIREMENTS FOR LARGE SERVICE LINES

Valve requirements for four-inch and larger service lines on mains 16 inches and larger will be determined by BMWD on a case-by-case basis.

To meet the requirements of this section, valves will be placed in the water main on each side of the service outlet whenever service lines are being installed, re-laid or reconnected. If there is an existing valve that adequately isolates the service, then it can be used in lieu of installing a new valve.

### 7.5 EFFECT OF CHANGED USE CONDITIONS

BMWD may review changed circumstances pertaining to the use, occupancy, or ownership at any time after service lines are installed. After reviewing the changes BMWD will determine if one or more additional service lines are required. The customer must pay the cost to install the additional line(s) or appurtenances required by the changes.

### 7.6 CHARGES FOR SERVICE LINE INSTALLATION

Service line charges are assessed according to BMWD's charge schedule unless the service line is installed by a private contractor. The customer must pay all charges and applicable impact fees at the time the application for service line installation is made. A customer may request a particular size of service line and meter with appropriate documentation, but BMWD will make the final determination of the size of the service line and meter required for each customer.

### 7.7 CHARGES FOR ADDITION OR REMOVAL OF SERVICE LINES

If a property owner requests additional service lines, BMWD may issue a water connection permit for the work. If the property owner requires fewer service lines than presently exist, BMWD may disconnect the unused lines without cost or impact fee credit to the property owner. The request to disconnect a service line must be submitted in writing.

Item 31
25 Oct 04

## 7.8 REQUESTS FOR LARGER SERVICE LINES

A customer may request a permit to replace a service line if a larger size service line is necessary to serve the customer. BMWD will review such requests prior to installation to determine if the requested service line size meets the revised requirements. The customer's contractor may install the new service lines upon the customer's payment of applicable impact fees. BMWD may relocate or install a larger service line for any customer, as it deems necessary to provide service.

## 7.9 PRIVATE FIRE PROTECTION SERVICE LINES

A contractor approved by BMWD may install a private fire protection service line under a water connection permit. Approval of an application for connection of a private fire protection service line to a BMWD main smaller than 12 inches in diameter is discretionary to BMWD. The diameter of the private fire protection service line may be determined by the customer to serve the fire protection requirements of the customer's property, subject to BMWD approval. Depending upon the fire protection requirement, a backflow prevention assembly may be required. The backflow prevention assembly must be installed, maintained and tested annually at the customer's expense. A customer's request to install a combination domestic and fire protection service line with a fire flow type meter may be approved at BMWD's discretion. If approved, then the customer must bear the cost difference between the flow type meter and a turbine type meter with strainer. A customer may obtain a larger fire flow meter at the customer's expense if the meter is not provided by BMWD.

## 7.10 TEMPORARY SERVICE LINES

The procedures, rules and rates for temporary service lines are the same as those for permanent service lines, except that temporary service is for a maximum of one year. BMWD will determine at its discretion whether a temporary service line may be installed. BMWD will evaluate all applications for temporary service lines as to the need for backflow prevention protection. For temporary services resulting from a plat deferral, only ¾" services will be allowed. The customer is responsible for installation and removal of temporary services.

## 7.11 SERVICE LINE RECONNECTION TO NEW MAINS

If BMWD replaces or relocates a water main, or if street reconstruction requires replacement or relocation of a water main, existing service lines will be extended and reconnected by BMWD without expense to the property owner.

## 7.12 IRRIGATION SERVICE LINES

All irrigation service lines must have a backflow prevention assembly on the customer side of the meter, installed, maintained and tested at the customer's expense. The customer is responsible for payment of the applicable charges and fees and must have an irrigation contractor confirm the required service line size. A customer may request that an existing service line be branched for an irrigation line. BMWD may allow installation of dual meters on a single service line. Allowable service lines for dual metering are 1-inch lines with two ¾ inch branches or 1½ inch lines with two 1-inch branches.

## 7.13 CROSS-CONNECTION AND BACKFLOW PREVENTION

No water may be returned to BMWD's potable water distribution system. BMWD will immediately discontinue service to any customer with an unapproved connection or a cross-

connection, and service will not be re-established until BMWD determines that the condition is corrected.

### 7.13.1 INDIVIDUAL CUSTOMERS

To protect BMWD's distribution system from contaminants associated with cross-connections and backflows, a connection between BMWD's distribution system and a customer's service line is not allowed if an unprotected cross-connection exists. A BMWD-approved backflow prevention assembly must be installed, maintained and tested annually by the customer before a connection is made to BMWD's distribution system. Customers outside the San Antonio city limits or in areas not under the control of a plumbing inspection process must have a TCEQ-approved Customer Service Inspection performed before a meter is set or water service is provided. BMWD-approved backflow protection must be installed on all internal cross-connection hazards. Additionally containment backflow protection will be required on designated facilities when necessary in the judgment of BMWD staff.

### 7.13.2 WHOLESALE WATER CUSTOMERS

Wholesale water customers must have approved backflow prevention assemblies installed at all BMWD service connections. Any required air gap separation must be at least two times the diameter of the supply pipe, measured vertically above the top rim of the vessel, and in no case less than one inch.

### 7.13.3 TYPE OF PROTECTIVE DEVICES

The selection of an appropriate backflow protection device will be based on the degree of hazard involved. BMWD will make the final decision in individual cases.

## 8 WATER METERS

### 8.1 SEPARATE METERED SERVICE REQUIRED

Each parcel, lot, tract, or separate property to be served by BMWD shall have an individually metered service line connection from a public water main. These services can not cross private lot lines.

### 8.2 WATER METERS FOR SINGLE-FAMILY RESIDENTIAL CUSTOMERS

Each single-family residential lot may be provided with up to two meters, located inside of the right-of-way or in a minimum 5 foot by 5-foot water easement.

### 8.3 WATER METERS FOR MULTI-FAMILY AND OTHER CUSTOMERS

1. Each individual dwelling unit in a new duplex, triplex, quadraplex must have a separate meter. BMWD staff may approve an exception to this rule if it is warranted by unusual conditions and necessary to provide efficient service to the end users. A secondary irrigation meter may also be used.

2. In every new multi-family residential development, separate meters must be used for the common areas, irrigation systems and any other outdoor uses of water.

3. All new non-residential buildings that have a floor area of more than 10,000 square feet

must have separate meters for irrigation and any other outdoor use of water.

4. All new multi-family residential developments, manufactured home rental communities, and multiple-use facilities must provide for the measurement of the quantity of water consumed by the occupants of each dwelling unit or rental unit through the installation of either a separate BMWD water meter for each unit or a sub-meter for each unit, owned by the property owner or facility manager. Water meters owned by BMWD must be located inside of the right-of-way.

5. Service size and meter size should be determined by the number of units for each building. Guidelines for the service/meter sizes are shown in the table below specific requirements should be verified by BMWD:

**BexarMet Water District**
**Service / Meter Size for Multi-Family Apartment Buildings**

**Note:** These numbers are based on Standard Engineering Practices, Uniform Plumbing Code fixture unit count, TCEQ Regulations, and Flow Rate Tables:

| No. of Units | Required Service Line Size | Required Meter Size |
|---|---|---|
| 6 | 2" | 1 ½ " |
| 8 | 2" | 1 ½ " |
| 10 | 2" | 1 ½ " |
| 12 | 4" | 2" |
| 16 | 4" | 2" |
| 20 | 4" | 2" |
| 24 | 4" | 2" |
| 28 | 4" | 2" |

6. Combination domestic and fire protection service line and fire-flow meters may be used when a private fire protection service line is required and the domestic meter size is two inches or larger.

### 8.4 WHOLESALE MASTER METERING

BMWD staff will determine whether master metering may be permitted for a wholesale water customer in order to provide the most efficient service to the end users.

### 8.5 LOCATION OF WATER METERS

Water meters must be located in areas with easy access and with protection from traffic and within or adjacent to public rights-of-way whenever possible. Meters may not be located in areas enclosed by fences. Meters two inches and smaller must be located in a public right-of-way, a water line easement, or a minimum five-foot by five-foot separate water meter easement. Meters three inches and larger must be located at least one foot, but not more than 50 feet, outside of the public right-of-way,

in a water line easement or a minimum ten-foot by twelve-foot water meter easement, and is subject to approval by BMWD.

## 8.6 REQUESTS FOR LARGER METERS

BMWD will replace a meter at a customer's request if a larger meter is necessary to serve the customer. BMWD will review such requests to determine if the requested meter installation meets the revised requirement. BMWD will install the larger meter at no charge to the customer if the size of the existing service line can accommodate the new meter and the customer's use warrants the replacement. Thereafter the customer must pay the water rates associated with the larger meter. BMWD may also install a larger or a different type of meter at BMWD's initiative and expense. The customer must pay all applicable charges and fees including additional impact fees.

## 8.7 REQUESTS FOR SMALLER METERS

A customer may request a smaller meter if the customer's use is not expected to cause excessive wear on the new meter. BMWD will install the smaller meter at BMWD's cost providing the size of the existing service line can accommodate the new meter. However, if excessive wear is detected, the meter will be replaced with a larger one. The customer will be informed and billed the cost for making the second replacement. BMWD may, at its initiative and expense, replace an existing meter with a smaller one if the current meter exceeds the customer's demand. If the customer's water needs subsequently increase and if the size of the existing service line can accommodate the larger meter, BMWD will install an adequate size meter at BMWD's cost.

## 8.8 TEMPORARY CONSTRUCTION METERS

Upon a customer's request, BMWD will install a smaller temporary construction meter on a permanent service line of one inch or larger for the customer's convenience during construction. The customer must pay the cost of the temporary meter installation according to the charge schedule at the time the customer makes this request. BMWD will render water bills in accordance with the established rate for the smaller meter until the permanent meter is installed. BMWD will install the permanent meter upon the request of the customer or the customer's contractor, or the customer may have a contractor install the permanent meter under a service adjustment permit. The property must meet all City platting requirements, where applicable, and all impact fees and installation charges for the larger service line must be paid prior to installation of the permanent meter. Water bills will then reflect the rate for the permanent meter.

## 8.9 FIRE HYDRANT METERS

BMWD may authorize a meter to be connected temporarily to a fire hydrant during construction operations in lieu of installing a temporary service line provided the customer:

- Executes a contract for a meter on a fire hydrant,
- Pays a customer account deposit,
- Assumes responsibility for the safekeeping of the meter, fitting and fire hydrant,

- Pays the charges set out in the charge schedules, and
- Complies with BMWD backflow prevention requirements.

## 8.10 METERED BILLING OF DOMESTIC AND IRRIGATION SERVICE LINES

### 8.10.1 GENERAL CLASS CUSTOMERS WITH ONE METER

### 8.10.2 GENERAL CLASS CUSTOMERS WITH TWO METERS

### 8.10.3 RESIDENTIAL CUSTOMERS WITH ONE METER

A residential customer with one-meter serving both domestic use and an in-ground irrigation system will have one billing statement. All water consumption, including the in-ground irrigation system, will be billed at the Residential Class rate for water. Wastewater charges will be billed at the Residential Class rate for wastewater service, based on the average water consumption during the winter months through the domestic meter.

### 8.10.4 RESIDENTIAL CUSTOMERS WITH TWO METERS

A residential customer with two meters where one is domestic and one is for irrigation will have a separate line item for each meter on one billing statement. The domestic meter water use will be charged the Residential Class water rate.

## 8.11 ILLEGAL WATER CONNECTIONS

Any person connecting into BMWD's water system without paying the applicable fees is in violation of these Regulations and of the City of San Antonio's Unified Development Code. A water connection that results in the illegal use of BMWD's water distribution system is sufficient evidence to constitute a violation and is punishable by a fine under the Unified Development Code.

# 9 DESIGN STANDARDS FOR WATER SYSTEM FACILITIES

## 9.1 DETERMINATION OF WATER REQUIREMENTS

See BexarMet's Standards and Specifications

## 9.2 FIRE FLOW REQUIREMENTS

Fire flows required for sizing of distribution mains must be as follows.

1. Single family residential developments with an average house size of not more than 3600 square feet and with 400 or fewer lots: 1000 gpm.
2. Single family residential developments with an average house size of more than 3600 square feet or with more than 400 lots: 1500 gpm.
3. All other developments: 2,000 gpm or more as determined by the developer's engineer in accordance with the City of San Antonio Fire Code and associated rules.
4. The minimum residual pressure at any point in the affected pressure zone at peak

hourly plus fire flow may not be less than 25 psi.

5. The maximum allowable velocity in a main may not exceed 10 feet per second during the combined flow of peak hourly flow and fire flow.

## 9.3 SIZING OF WATER MAINS

A developer customer may use computer modeling to size on-site and off-site water mains. All modeling will be reviewed by BMWD. When modeling water mains, the initial static gradient shall be 15 feet below the static gradient of the pressure zone or as determined by BMWD. The main size will be the largest size as determined by comparing the service area's peak hour demand at 5 feet per second and peak hour demand plus fire flow at 10 feet per second. For transmission mains only (mains 16 inches in diameter and larger), the main size will be determined by peak daily flow with a velocity of 3 feet per second.

## 9.4 SIZING OF PRODUCTION FACILITIES

Sizing of production facilities will be done in accordance with TCEQ requirements, except that minimum pressure tank capacity will be 5,000 gallons and minimum ground storage will be 50,000 gallons.

## 9.5 STANDARD AND MINIMUM MAIN SIZES

Standard size water mains have diameters of eight inches, 12 inches, 16 inches, 20 inches, 24 inches and six-inch multiples thereafter. Six-inch diameter pipe may be used only in cul-de-sacs less than 500 feet long and with the installation of a fire hydrant or an automatic flushing device at the end. The minimum size of any water main in any street type, however, will be governed by various factors including fire protection requirements, density of land use, and considerations of general grid system layout, future transmission mains, and neighboring developments and area configuration. BMWD will determine the sizes of transmission mains on a case-by-case basis.

## 9.6 GRID SYSTEM REQUIREMENTS

Interconnections of water mains to form a grid system are preferred so that all individual water customers will have two or more potential sources. All subdivisions greater than 125 EDU's must have a dual feed system, and provisions for future interconnections. However, a developer customer may provide engineering documentation and certification that an adequate water supply and adequate pressure for domestic and fire flow will be available if a single connection to the BMWD distribution system is used for a subdivision or commercial project. BMWD approval must be obtained for any single-connection subdivision. An automatic flushing device is required at the end of each dead end main. Mains for future connections must be extended to the boundary of the tract.

## 9.7 VALVE REQUIREMENTS

1. All valves in the potable water system must open "left."
2. Valves must be located at the intersection of two or more mains and must be spaced so that no more than 30 customers will be without water during a

shutdown.

3. In mains smaller than 16 inches, valves may be no more than 1000 feet apart. In mains 20 inches and larger, the distance between valves may not exceed 2000 feet. For mains 36 inches and larger, the location and frequency of required valves may vary depending on BMWD's engineering design considerations.
4. The number of valves at each intersection shall be one less than the number of pipe extensions.
5. At dead ends, gate valves must be located one pipe length or a minimum of 10 feet from the end points of the main. The customer's engineer must provide drawings showing complete restraint for all such valves, pipe extensions and end caps.
6. Branch piping for both new and future branches must be separated from the water main by gate valves.
7. Valves at intersections must be placed at the point of curvature of the curb line.
8. In water mains 16 inches and smaller, all valves must be resilient seated gate valves.
9. In water mains 16 inches in diameter and larger, automatic combination air/vacuum valves must be placed at all high points.
10. In water mains greater than 16 inches in diameter, butterfly valves must be used.
11. All butterfly valves must have actuators enclosed in a valve box.
12. Valves at pressure zone boundaries must be equipped with a locking type debris cap.
13. Valves in fire hydrants must be resilient seated gate valves and must be restrained to the main.
14. All valves shall be mechanically restrained.

## 9.8 FIRE HYDRANT REQUIREMENTS

Fire hydrants must be installed in accordance with the local fire prevention authority or as outlined below, whichever is more stringent.

Fire hydrants must be located along public rights-of-way, preferably at street intersections. A six-inch gate valve must be installed between the water main and each hydrant. Fire hydrants must be the dry barrel type and must comply with the BMWD's current material specifications.

In single-family residential developments, fire hydrants must be located so that every building site is within 500 feet of a hydrant and so that there is no more than 500 feet distance between hydrants. In all other developments, the distance between hydrants may not exceed 300 feet or as required by the City of San Antonio Fire Code. If the type of development is unknown, the distance between fire hydrants shall be 1,000 feet. Hydrants should preferably be installed at the intersection of two streets, and normally should be installed two feet behind the curb or projected future curb and outside of the sidewalk area.

Fire hydrants must be designed to have a four-foot bury where possible. As a normal policy, bends or offsets in fire hydrant branches will not be allowed. Bends may be

used to maintain a four-foot bury or to maintain a two-foot setback from a curb with prior approval by BMWD.

### 9.9 ADDITIONAL FIRE HYDRANTS

A customer may request the installation of a fire hydrant on an existing main of adequate diameter to provide fire protection service in excess of established criteria. BMWD will install the fire hydrant when the customer agrees to pay the actual cost of the installation. A fire hydrant providing supplemental fire protection may also be installed by a contractor approved by BMWD under a water connection/adjustment permit.

### 9.10 WATER MAIN PROTECTION AT WASTEWATER CROSSINGS

All water mains must be protected at wastewater main crossings as required by the Texas Commission on Environmental Quality.

## 10 PROCEDURES FOR WASTEWATER SERVICE

### 10.1 GENERAL SERVICE PROVISIONS

### 10.2 WASTEWATER LATERALS

### 10.2.1 REGULATORY COMPLIANCE REQUIREMENTS

### 10.2.2 PERMIT REQUIREMENTS

### 10.2.3 INSTALLATION AND INSPECTION

### 10.2.4 CORRECTION OF SUBSTANDARD WORK

### 10.3 PUMP TRUCK AND HAUL

### 10.4 INDUSTRIAL WASTE

### 10.5 ILLEGAL WASTEWATER CONNECTIONS

## 11 DESIGN STANDARDS FOR WASTEWATER SYSTEM FACILITIES

### 11.1 WASTEWATER LATERALS

### 11.2 MANHOLES

### 11.2.1 TYPE

### 11.2.2 LOCATION

## 12.1 APPLICATION

An applicant for a single customer water or wastewater main extension must meet the following requirements and pay the applicable fees, charges and deposits:

- Provide a plat or Certificate of Determination of the platted property to be served.
- Provide a dedicated right-of-way or easement in which the main will be located.
- Provide the location of the service and the water and wastewater requirements to determine the size of the service line, meter and wastewater lateral.
- Provide such other information, as BMWD reasonably requires.

## 12.2 EXTENSION CHARGES

The applicant for a single customer water or wastewater main extension that is to be constructed by BMWD must execute an agreement with BMWD for the main extension and must pay the extension charges plus the applicable impact fees. The

extension charge will include all costs of the extension installation exclusive of oversizing. The main extension charge will be assessed according to the charge schedules.

### 12.3 PRO-RATA COLLECTION AND REFUND OF MAIN EXTENSION CHARGES

A single customer who contracts with BMWD for a main extension will receive an annual refund for ten years from the date of the contract for the main extension. These pro-rata refunds will be paid from the proceeds of the pro-rata charges collected from other customers who connect to the main extension as their sole source of service, according to the charge schedule in effect at the time of the original agreement. The total refund may not exceed the total amount of the customer's extension charge.

BMWD collects pro-rata charges as a courtesy to the single customer and receives no financial benefit. BMWD shall not be held liable for errors or omissions in the collection and payment of pro-rata fees.

### 12.4 HARDSHIP EXTENSION PROGRAM

### 12.4.1 PROGRAM OUTLINE

### 12.4.2 PROCEDURES

### 12.5 LOCAL BENEFIT IMPACT FEE PROGRAM

### 12.5.1 PROGRAM OUTLINE

### 12.5.2 PROCEDURE FOR DESIGNATION

### 12.5.3 REQUIREMENTS TO RECEIVE SERVICE

### 12.5.4 TIMING OF CONSTRUCTION FOR LOCAL BENEFIT IMPACT FEE MAINS

## 13 DEVELOPER EXTENSIONS OF WATER AND WASTEWATER FACILITIES

### 13.1 APPLICATION AND COMPLIANCE REQUIRED

A developer customer must apply for service according to these regulations before BMWD will extend its local and/or general benefit facilities to serve new development. BMWD is not obligated to permit the connection of any main to an existing main or to provide service or to reimburse any oversizing cost until a developer customer complies fully with these regulations.

### 13.2 DEVELOPER'S OBLIGATIONS

A developer customer's engineer must prepare detailed plans and cost estimates for

water and wastewater systems according to BMWD's design standards. The developer customer's engineer must be licensed as a professional engineer in the State of Texas. BMWD must approve the plans and cost estimates before it will issue a water or wastewater connection or adjustment permit, a general construction permit or a trilateral contract. The developer's engineer must also prepare the contract documents if the project is to be constructed under a trilateral contract. The developer customer must furnish all necessary labor, materials, and equipment for construction of the local benefit facilities according to the plans approved by BMWD.

## 13.3 WATER FACILITY DRAWINGS REQUIRED

Before a water system may be constructed and a permit issued, all construction drawings must be reviewed and approved by BMWD. These drawings must meet the following requirements:

1. Plans must be drawn on (22-inch by 34-inch) drawing paper.
2. All subdivision water plans must include a cover sheet with location map, BMWD job number, identification block, applicable general construction notes, an overall water layout sheet, and detail sheets if applicable.
3. After construction, a set of project record drawings (along with electronic backup), in accordance with BMWD current requirements, sealed by the consultant engineer, must be submitted prior to acceptance by BMWD.
4. The plan scale must be 1 inch = 50 feet.
5. The plan must show all existing and proposed street rights-of-way, lot lines, easements, utilities, and property lines. Recorded easements must be referenced with volume and page numbers. All data must be referenced with applicable names or numbers.
6. Each plan sheet must have an identification block, north arrow and scale callout.
7. All water mains must be properly identified as to size, material, class, and other pertinent data, and all appurtenances must be described and enclosed in a rectangular box.
8. The plan must show all existing and proposed utility crossings of the proposed water lines.
9. The plan must dimension each water main off a right-of-way or property line and show all lengths from fitting to fitting/appurtenance.
10. The plan must show all bores, street cuts, and sidewalk cuts.
11. Details or cross-sections, such as culvert crossings, must be shown on the same sheet if practical or referenced to the applicable sheet.
12. Plans must indicate a match-line from one sheet to the next, showing stationing and sheet number.
13. Plans must show all water service lines and describe them as to size, whether dual or single meters, domestic or irrigation use, and other pertinent information.
14. Plans must describe chlorination requirements and tie-ins. Normally, BMWD will machine chlorinate new water mains longer than 750 feet and the contractor will chlorinate by HTH mains of 750 feet or less.
15. Plans must have the engineer's seal and dated signature, the date of the plans, and dated revision notes on each plan sheet.
16. Survey and coordinate system shall be in accordance with Bexar County and City

of San Antonio grid system.

17. Protection requirements for water line and wastewater line crossings shall be in ccordance with the most recent TCEQ requirements.

## 13.4 WASTEWATER FACILITY DRAWINGS REQUIRED

### 13.4.1 GENERAL REQUIREMENTS

### 13.4.2 LAYOUT PLANS FOR WASTEWATER SYSTEMS

### 13.4.3 PLAN-AND-PROFILE VIEWS OF WASTEWATER SYSTEMS

## 13.5 EASEMENT REQUIREMENTS

### 13.5.1 QUALITY ASSURANCE

### 13.5.2 PLAT REQUIREMENTS

### 13.5.3 QUALITY ASSURANCE

Recordable plats and metes-and-bounds descriptions of easements must be prepared under the direction of a professional surveyor. The surveyor must seal, sign and date all documents prepared under his supervision.

### 13.5.4 PLAT REQUIREMENTS

BMWD must review and approve all easements to be recorded on a subdivision plat with the original engineering drawings. Where easements are to be dedicated outside the plat boundary or on property under different ownership, the following procedure must be followed:

1. Submittal to BMWD the metes and bounds descriptions, survey plats, computer closure reports, and documents showing ownership of property.
2. Preparation of easement documents by BMWD.
3. Execution of easement documents by the owners and BMWD.
4. Recordation of easement and delivery of executed easement document to BMWD.

All off-site easements necessary to serve a proposed development must be shown on the face of the plat, or an acceptable tie must be established between the plat and the easements.

Easements required for construction of a proposed project must be approved and accepted prior to issuance of a permit for the proposed construction. All easements must be recorded before BMWD accepts the facility.

Unless otherwise noted, all recorded easements by metes and bounds must be labeled "wastewater, water and recycled water easement."

### 13.5.5 EASEMENT LOCATION AND DESIGN REQUIREMENTS

### 13.5.6 WATER MAINS

When water mains are located outside a street right-of-way or overlapping public utility easement, they must be centered within easements dedicated and restricted for water facilities only.

For water mains located outside of the street right-of-way, the easement must have a minimum width of 10 feet and it should be contiguous to the street right-of-way or contiguous to a public utility easement. Where the easement cannot be located contiguous to the street right-of-way or a public utility easement, it must have a minimum width of 20 feet. In new residential developments only, water easements along side lot lines must be a minimum of 20 feet in width and located on one lot. Water easements may not be located along rear lot lines unless 24-hour paved access is provided.

For water mains located less than five feet within right-of-way lines, a five-foot water easement must be located adjacent to the right-of-way line.

The centerline of any water main may be no closer than 20 feet to a commercial building, foundation or building slab.

### 13.5.7 WATER METERS

Two-inch and smaller meters must be set within public rights-of-way if possible. Otherwise, they must be set in minimum five-foot by five-foot water meter easements.

Three-inch and larger meters must be set in minimum 10-foot by 12-foot water meter easements. Meters must be located one foot inside the property line or one foot outside of the easement inside the property line.

Water meter easements must be located contiguous with public rights-of-way unless approved by BMWD. An access easement a minimum of 15 feet wide is required when the meter is not contiguous with a public right-of-way.

### 13.5.8 WASTEWATER MAINS

## 13.6 PERMIT OR TRILATERAL CONTRACT REQUIRED

Prior to any construction, BMWD must issue a general construction permit or trilateral contract to the developer customer, or a connection or adjustment permit to a developer customer's contractor. A general construction permit, connection or adjustment permit or trilateral contract becomes void if construction does not begin within 12 months from the date the permit is issued or the trilateral contract approved. Thereafter the developer customer must submit a new set of plans to acquire a new permit or contract. BMWD must review the plans again before issuing a new permit.

## 13.7 DISINFECTING OF NEW WATER MAINS REQUIRED

All newly constructed water mains must be disinfected in accordance with the ANSI/AWWA C651-92 Standard. BMWD will machine-chlorinate all newly constructed potable water mains 750 feet or more in length using the continuous feed method and will collect samples for bacteriological testing in accordance with the American Water Works Association's standard. Developer customers may opt to disinfect water mains less than 750 feet long using an approved AWWA method. However, BMWD's chlorination crew and laboratory will perform the sampling and bacteriological analysis. All new water mains must produce a negative bacteriological sample before being connected to a BMWD water main and placed into service for potable water use.

## 13.8 INSPECTIONS AND ACCEPTANCE OF FACILITIES

The developer customer must notify BMWD at least three working days prior to initiating construction. Construction and testing observation is the responsibility of the developer customer's engineer. Once the work is completed, the developer customer's engineer must certify that the work complies with BMWD-approved plans, BMWD specifications and cost estimates and applicable regulations. BMWD will accept ownership of the developer customer's facilities after receiving and approving the final project completion documentation, including the water/wastewater acceptance certificate, copies of all testing reports, the final project record drawings, warranties and affidavits. The developer customer must submit all of the project completion documentation within 45 days after the completion of construction. Failure to submit complete documentation for one project will result in denial of approvals for future projects until all earlier documentation is complete.

## 13.9 COMPLETE PROJECT RECORD DRAWINGS REQUIRED

The developer customer must furnish BMWD one set of project record drawings in both reproducible and CADD file digital form, according to current BMWD mapping standards, certified correct by the customer's engineer, within 45 days after completion of construction. The project record drawings must be in accordance with BMWD standards and must completely detail main installations, service lines and wastewater laterals, and all related appurtenances.

## 13.10 PROJECT RECORD DRAWINGS FOR PHASEDCONSTRUCTION

If construction of the facilities is to be accomplished in phases, BMWD will receive project record drawings covering each phase of the project as that phase is completed. The documentation for subsequent phases of a project will not be accepted until the project record drawings for the preceding phases have been completed and accepted by BMWD.

## 13.11 PRO-RATA COLLECTION AND REFUND OF MAIN EXTENSION CHARGES

A developer customer who obtains a general construction permit from BMWD for the construction of an approach or border main or off-site wastewater mains is eligible to receive annual pro-rata refunds of pro-rata charges for ten years from the date the

contract or permit for the main extension is executed. Refunds will be paid from the proceeds of the pro-rata charges collected from other single customer and developer customers who connect to the main extension as their sole source of service. The total refund will be in accordance with the charge schedules and may not exceed the total amount of the developer's expense, after subtracting any oversizing reimbursement and impact fee credits, for the main extension. Pro-rata charges are due prior to execution of a Utility Service Agreement for customers requiring a Utility Service Agreement, and prior to permit issuance for all other customers. BMWD collects pro-rata charges as a courtesy to the developer customer and receives no financial benefit. BMWD shall not be held liable for errors or omissions in the collection and payment of pro-rata fees.

## 14 OVERSIZING OF WATER AND WASTEWATER FACILITIES

### 14.1 OVERSIZE FACILITY REQUIREMENTS

A developer customer must pay for all mains and other facilities needed to serve a proposed development. BMWD may require the installation of oversized water mains. BMWD requirements for oversizing will be included in the utility service agreement. BMWD will execute a trilateral contract with the developer customer and a contractor for the construction of the oversize project facilities. Oversize projects must be competitively bid by BMWD. BMWD will reimburse the developer customer for the oversize construction cost differential upon completion of the approved project installation and BMWD's acceptance of the system. BMWD will determine whether to provide such reimbursement in the form of a cash reimbursement or in credit to be applied to impact fees.

### 14.2 OVERSIZE WATER SYSTEM REIMBURSEMENT

#### 14.2.1 OVERSIZE WATER MAINS

BMWD's reimbursement to the developer customer for oversize water main construction costs will be calculated based on the incremental cost of the oversize construction. The developer customer's cost sharing will be the greater of either (a) $40.00 per linear foot or (b) the developer customer's prorated share of the cost of the oversize main, excluding costs related to service connections. The developer customer's pro-rated share will be based on the ratio of the pipe area using the nominal diameter of the required standard size main to the pipe area using the nominal diameter of the oversized main installed.

Example 1:

| | |
|---|---|
| Required Standard Size Main: 8-inch | Area : 50.27 in.$^2$ |
| Oversize Main Constructed: 16-inch | Area : 201.06 in.$^2$ |
| Total Cost of Main Constructed | $158,400 |
| Length of Main Constructed | 1,980 ft |
| Cost per Linear Foot | $ 80.00 |
| Minimum Charge Per Linear Foot | $40.00 |

Pro-rated Developer Customer Share of Main Cost:

50.27 in.2/ 201.06 in.2= 0.25
0.25 x $80.00 = $20.00 per linear foot
Developer customer pays $40.00 per linear foot

Example 2:

| | |
|---|---|
| Required Standard Size Main: 24-inch Area : | 452.39 in.$^2$ |
| Oversized Main Constructed: 30-inch Area : | 706.85 in.$^2$ |
| Total Cost of Main Constructed | $301,950 |
| Length of Main Constructed | 2,013 ft |
| Cost per Linear Foot | $ 150.00 |
| Minimum Charge Per Linear Foot | $40.00 |

Pro-rated Developer Customer Share of Main Cost:
452.39 in.2 /706.85 in.2= 0.64
0.64 x $150.00 = $96.00 per linear foot
Developer customer pays $96.00 per linear foot.

If construction of a parallel main is required to conform to these regulations, the oversize area of the main will be the sum of the areas of the parallel mains. The total costs of the mains constructed will include the cost of the parallel mains.

### 14.2.2 Other Oversize Water System Facilities

Water system facilities that may require oversizing include ground and elevated storage tanks, permanent booster stations, high service pumps, and associated production equipment. BMWD will reimburse the developer customer for the differential in the cost of the oversize installation that is the result of the required oversizing. This differential will be calculated by dividing the total cost of the oversize facility between the customer and BMWD in proportion to the capacity required by the customer and the oversize capacity required by BMWD. BMWD will determine reimbursable oversizing costs on a case-by-case basis.

## 14.3 OVERSIZE WASTEWATER SYSTEM REIMBURSEMENT

### 14.3.1 OVERSIZE WASTEWATER MAINS

### 14.3.2 LIFT STATION/FORCE MAIN SYSTEMS

## 14.4 LIMITATION OF ENGINEERING FEE REIMBURSEMENTS

## 14.5 BMWD-SUPPLIED PIPE IN LIEU OF REIMBURSEMENTS

# 15 IMPACT FEES

## 15.1 IMPACT FEE FUND ACCOUNTING

### 15.1.1 FUNDS CREATED WITHIN THE RENEWAL AND

REPLACEMENT FUND

15.1.2 SERVICE RECOVERY ACCOUNT

15.1.3 DEVELOPER CUSTOMER FUND

15.1.4 INTEREST ON FUNDS

15.2 WATER IMPACT FEE FUND RESTRICTIONS

15.2.1 FLOW IMPACT FEES

Flow impact fees may be used only to fund or recoup the cost of water distribution mains and related facilities installed or expanded to serve new development.

15.2.2 SYSTEM DEVELOPMENT IMPACT FEES

System development impact fees may be used only to fund or recoup the cost of transmission mains and production and storage facilities installed or expanded to serve new development.

15.2.3 WATER SUPPLY IMPACT FEES

Water supply impact fees may only be used to fund or recoup BMWD's cost of new water supply projects developed or expanded to serve new development.

15.2.4 LOCAL BENEFIT IMPACT FEES

15.3 WASTEWATER IMPACT FEE FUND RESTRICTIONS

15.3.1 COLLECTION IMPACT FEES

15.3.2 TREATMENT IMPACT FEES

15.3.3 LOCAL BENEFIT IMPACT FEES

15.4 ASSESSMENT AND PAYMENT OF IMPACT FEES

15.4.1 ADDITIONAL REQUIREMENT

15.4.2 PAID BY NEW DEVELOPMENT

15.4.3 MUST BE PAID AT PLAT APPROVAL

Impact fees as assessed must be paid at plat approval. Under rare circumstances a customer, either single or developer, may desire service without payment in full of impact fees. That customer must pay a portion of the impact fees due and execute a development agreement with BMWD detailing when impact fees will be paid as well as the reason(s) for seeking an exception to the requirement that impact fees be paid in advance. Such development agreement shall include interest payable to BMWD

which shall not exceed the maximum allowed by law.

### 15.4.4 WHERE LAND IS NOT BEING PLATTED OR WAS PLATTED PRIOR TO NEW DEVELOPMENT

### 15.4.5 WHERE LAND IS BEING PLATTED

### 15.4.5.1 ELECTION TO BE MADE AT PLAT APPLICATION

### 15.4.5.2 FEES PAID AT TIME OF PLATTING

Impact fees are to be paid at the time of platting. The Letter of Certification issued by BMWD will state both the current impact fees and the number of EDU's to be used. The impact fees to be paid will be those in effect at the time of plat recordation and may be different from the fees shown in the Letter of Certification. BMWD will not approve the release of a plat for recordation unless all required impact fees have been paid and either (a) all required improvements have been constructed and accepted by BMWD or (b) a performance guarantee has been provided to and accepted by BMWD.

### 15.4.5.3 FEES PAID AT TIME OF APPLICATION FOR WATER METER SET OR WASTEWATER CONNECTION

### 15.4.5.4 DETERMINATION OF EDUS

The number of EDU's for assessment of water impact fees are based upon water meter size:

- Apartments are assessed 1 EDU per unit for system development impact fees.

The number of EDU's for sewer impact fee assessment will be determined as follows:

- Each individual service connection will be assessed a minimum of 1 EDU.
- Each single-family residential unit will be assessed a minimum of 1 EDU.
- Each dwelling unit in a duplex, triplex, quadraplex, townhome, condominium or multi- family residential development will be assessed 0.7 EDU per unit, for collection, and treatment impact fees.
- The number of EDU's for all other land uses will be based on projected demand, as calculated by BMWD staff or by an independent engineering study. The engineering study will determine the number of EDU's by dividing the average daily water consumption for similar facilities, using at lease two years of historical data, by the number of gallons per day currently defined as an EDU.

## 15.5 INCREASE IN WATER AND WASTEWATER DEMAND

Following impact fee assessment, additional development that increases the number of service units on a property will result in additional impact fee assessment. Such assessment may be made at any time during the development or building process, and will be limited to assessment for increased service units being developed.

## 15.6 RECOGNITION OF COMMITMENT TO PROVIDE WATER OR

## WASTEWATER CAPACITY

For a customer who has a utility service agreement, BMWD will recognize its commitment to setaside water and wastewater system capacity in infrastructure servicing the tract for the time period the agreement is in effect. System capacity is guaranteed if the developer has paid the associated impact fees at the appropriate impact fee rate either in the form of a direct payment to BMWD or by previously earning impact fee credits pursuant to sections 15.8 and 15.9 of these regulations. In addition to impact fee payments, the customer must have completed construction of all infrastructure (excluding on-site mains not required to be oversized) required in the utility service agreement and the infrastructure must have been accepted by BMWD.

### 15.7 USE OF WATER OR WASTEWATER CAPACITY

BMWD reserves the right to use set-aside water and wastewater system capacity in on-site and off-site water supply and wastewater collection systems that service existing developments regardless of whether such water supply and wastewater collection systems were oversized. However, in order to preserve the capacity that has been designated for a particular tract, BMWD will do the following:

#### 15.7.1 MAINTAIN RECORDS

BMWD will maintain records regarding a developer customer's capacity in on-site and off-site systems. In the event the developer customer exceeds the amount of set-aside capacity as a result of any subsequent development of the property, the developer customer will be required to obtain a new utility service agreement reflecting the additional EDU's required for the development.

#### 15.7.2 EXCLUSIVE OWNERSHIP OF CAPACITY

BMWD retains exclusive ownership of the capacity in all facilities under its control. However, BMWD will continue to serve a development for which capacity has been guaranteed and all requirements of the utility service agreement are being met. A development will not be denied service solely on the basis that the remaining capacity for such development is insufficient to accommodate anticipated flows to be generated by the development when such insufficiency is the result of BMWD connecting another development's flows to the system serving the initial development for which capacity was committed.

#### 15.7.3 ASSIGNMENT OF WASTEWATER SYSTEM CAPACITY

Wastewater system capacity may be assigned only as part of a real estate transaction in which the property being served is itself transferred. An assignment of wastewater system capacity may not reduce the available capacity to the remaining tract to less than four EDU's per acre unless an engineering report justifies that less than four EDU's per acre is adequate to serve the property.

#### 15.7.3.1 ASSIGNMENT OF WASTEWATER SYSTEM CAPACITY RELATING TO MULTI-FAMILY UNITS

## 15.8 WASTEWATER IMPACT FEE CREDITS

### 15.8.1 EXPIRATION OF WASTEWATER IMPACT FEE CREDITS

### 15.8.2 TRANSFER AND ASSIGNMENT OF EXCESS IMPACT FEE CREDITS

### 15.8.3 TERMINATION OF WASTEWATER IMPACT FEE CREDITS

## 15.9 AWARD OF IMPACT FEE CREDITS

A developer customer is eligible for impact fee credits for funding a project or portion of a project included in the Impact Fee Capital Improvement Plan. These credits will be earned based upon the portion of the total as-built construction cost of the project funded by the developer customer including engineering fees up to ten percent. The dollar value of these credits excludes the dollar value of any reimbursement for oversizing received by the developer customer pursuant to sections 14.2 and 14.3 of these regulations. In no event may the sum of the dollar value of the impact fee credit and the dollar value of any reimbursement for oversizing be greater than the total as-built construction cost for that portion of the project. To be awarded credits under this section, construction projects must be competitively bid by BMWD in accordance with BMWD's bid process. Impact Fee credits earned under this section will not have an expiration date, and may be transferred to another development owned by the same developer. For credits earned under this section there is not a minimum number of credits that must remain with the property. Impact fee credits must be used at the time of platting. Water impact fee credits can only be used to pay for water impact fees and wastewater impact fees credits can only be used to pay for wastewater impact fees.

## 15.10 SERVICE UNDER COMMITMENTS THAT DO NOT ADDRESS IMPACT FEES

## 15.11 VARIANCES FROM THE PAYMENT OF IMPACT FEES

### 15.11.1 SUBMITTAL OF REQUEST

### 15.11.2 SCHEDULING OF REQUEST

## 15.12 IMPACT FEE POLICY FOR ECONOMIC DEVELOPMENT

### 15.12.1 INTENT OF SECTION

### 15.12.2 DEFINITIONS

### 15.12.3 PROPERTIES ELIGIBLE FOR IMPACT FEE REDUCTIONS

### 15.12.4 TERM OF IMPACT FEE REDUCTION

**17.3 PERMIT REQUIRED FOR DRILLING OF NEW WELLS**

In order to protect the area's water resources, it is unlawful for anyone to drill, maintain, or otherwise construct or have constructed any new water well, or any injection well for the purpose of an earth-coupled heat exchange system, or to undertake any artificial excavation to explore for or produce groundwater, within BMWD's service area, without first applying for and obtaining a well drilling permit from BMWD. All drilling or construction of water wells, and injection wells for the purpose of an earth-coupled heat exchange system must be done in strict compliance with the terms of the well drilling permit and the BMWD water well permitting procedures.

**17.4 GENERAL GROUNDS FOR DENIAL OF PERMIT**

**17.5 WELL PERMIT FEES**

**17.6 ABANDONED WELLS REQUIRED TO BE PLUGGED**

**17.7 PERMIT REQUIRED FOR REPAIR OR CLOSURE OF EXISTING WELLS**

**17.8 FAILURE TO ABATE A NUISANCE**

**18 RECYCLED WATER**

**18.1 ALLOWED USES**

**18.2 PROHIBITED USES**

**18.3 CUSTOMER CONTRACTS REQUIRED**

**18.4 CONVERSION BENEFITS**

**18.5 CUSTOMER CATEGORIES**

**18.5.1 EXISTING CUSTOMERS**

**18.5.2 EDWARDS WELL OWNERS**

**18.5.3 NEW CUSTOMERS**

**18.6 BMWD'S OBLIGATION TO EXTEND THE RECYCLED WATER SYSTEM**

**18.7 RECYCLED WATER QUALITY**

**18.8 BMWD QUALITY MONITORING**

## 20. APPENDICES

## 20.1 CHARGE SHEDULES

### 20.1.1 Schedule "A" Pro-Rata Charges

**Connection to water or wastewater mains installed after 7/28/2003**
**Water Service:**
Pro-Rata charges will be collected form customers connecting to certain approach or border water mains adjacent to their tracts by multiplying the entire front footage of the connecting tract along the main by ½ of the actual cost of the project.

**Wastewater Service:**
Pro-Rata charges will be collected from customers connecting to certain existing off-site wastewater mains based upon the greater or either:

A. Multiplying the entire front footage of the connecting tract along the main by ½ or the actual unit cost per foot of the project, or

B. Multiplying the number of EDU's from the connecting tract by the unit cost per EDU (total project cost divided by the total number of EDU's of construction capacity or the total project cost divided by BexarMet's approved EDU requirements of the sewer shed, whichever is less).

**Connection to water mains installed before 7/28/2003:**
Per schedule

### 20.1.2 Schedule "B" Service Line Installation Cost Estimates

Final charge to customer will be based on the time and materials cost:

| Size of Water Service Line | Cost (Short Service) | Cost (Long Service) |
|---|---|---|
| ¾ " | $650.00 | Quoted Charge |
| 1" | $850.00 | Quoted Charge |
| 1 ½ " | Quoted Charge | Quoted Charge |
| 2" | Quoted Charge | Quoted Charge |
| Greater than 2" | Quoted Charge | Quoted Charge |

| Size of Wastewater Service Line | Cost |
|---|---|
| 6" Lateral | $800.00 |
| Greater than 6" | Quoted Charge |

### 20.1.3 Schedule "C" Single Customer Main Extension Cost Estimate

Final charge to customer will be based on time and material costs.

**20.1.4 Schedule "D" Meter on Fire Hydrant Charge**
Fee Schedule

**20.1.5 Schedule "E" Recycled Water Tracking Rates**
Fee Schedule

**RESUME**
**of**
**Samuel W. Jones, P.E.**
**Sam Jones Consulting, Inc.**
**May 17, 2005**

Samuel W. Jones received a Bachelors Degree in Agricultural Engineering from Oklahoma State University at Stillwater, Oklahoma. He received his certificate of registration as a professional engineer for the State of Texas in 1977. He was with the Texas Natural Resource Conservation Commission (now TCEQ) from 1972 until July 2000, starting with the Water Rights Adjudication program. He began working with the Water Districts program in 1981 and managed that program from1986 until June 2000. In October of 1999, Sam was named manager of the Utilities and Districts Section. That role includes the oversight of water and sewer utilities as well as the 1300 plus water districts in the state. On July 1, 2000, Sam retired from state employment and began work on his own as a consultant on utility and water district matters. On November 1, 2000, Sam joined Pate Engineers, Inc. and opened their Austin Office. Sam was named Vice-President of the Austin Division of the Civil Engineering firm which grew from one employee to 15 in February 2003. In February 2003, Sam left Pate and started his own consulting business of Sam Jones Consulting, Inc. specializing in water district and utility matters.

**Area of Expertise:**

- Water District Creations through the TCEQ under general law and the State Legislature under special law;
- Water District Financing, including issuance of bonds, levying of standby fees, impact fees and other sources;
- Water District administration, including governance, operation and management;
- Water Utility applications for approval and amendments of service areas through the TCEQ;
- Water Rights applications through the TCEQ;

**Major Accomplishments (with TCEQ):**

- Project manager for seven river basin segments during the water rights adjudication process.
- Testified as an expert witness on water rights and water district matters.
- Reviewed the engineering and feasibility of all water district bonds sold on the open market and approved by the TCEQ.
- Responsible for responding to outside requests from the public, board members and consultants for information and interpretation of state and local requirements related to water districts.
- Provided assistance to water districts by attending meetings with the districts and/or their representatives to address specific problems and provided notification to districts of new requirements.
- Oversaw the publication of an annual newsletter for water districts (*Water District Update*) plus numerous technical reports for water districts, including: *Handbook for Water Board Directors, Water District Accounting Manual, What is a Water District, Bond Application Report Format* and *Standby Fee Application Report Format.*
- Worked with members of an ad-hoc committee to draft and adopt major water district rule changes (31 TAC §293) to ensure the financial feasibility of water districts.
- Worked with members of an ad-hoc committee and members of a special legislative interim committee to draft legislation to recodify the administrative provisions of the Texas Water Code into a new Chapter 49.

- Drafted numerous revisions to the water district rules (31 TAC §293) to streamline the TCEQ application review process, including rules to provide for expedited bond reviews and rules to address endangered species permitting costs.
- While at the TNRCC, during the 1993, 1995, 1997 and 1999 legislative sessions, responsible for the review and analysis of all proposed legislation affecting water districts. This included analyzing and commenting on approximately 250 bills each session.
- Testified as expert witness before the Senate Natural Resources Committee and House Natural Resources Committee on Water District matters, including before the Senate Natural Resources Special Interim Committee on River Authorities.

**Major Accomplishments:**

- Represent 7 Municipal Utility Districts as their engineer in Travis, Williamson and Hays Counties.
- Prepared and processed numerous MUD creation applications through TCEQ.
- Prepared and processed numerous applications for contract tax approval through the TCEQ.
- Prepared and Processed Bond Applications for multiple MUDs, WCIDs and FWSDs through the TCEQ for approval.
- Prepared and processed numerous miscellaneous type applications including surplus funds, contract tax applications through the TCEQ.
- Prepared and processed numerous applications for water and sewer Certificates of Convenience and Necessity through the TCEQ.
- Represent Developers in the Creation of water districts for projects in Travis, Williamson, Hays, Denton, Collin and Rockwall Counties.
- Represent the City of Fate in processing their wastewater permit applications and CCN applications through the TCEQ.

EARL & BROWN
attorneys at law

May 29, 2001

Texas Natural Resource Conservation Commission
Water Utilities Division
Utility Rates and Services Section, MC-153
P.O. Box 13087
Austin, TX 78711-3087

*CMRRR: Z 300 178 137*

Re: Written protest and request for a hearing in relation to **Bexar Metropolitan Water District Application to Amend Water CCN No. 10675**

To Whom It May Concern:

On behalf of our client, BSR Water Company, we are hereby formally requesting a hearing with regard to the above mentioned application to amend CCN, and protest the proposed expansion of the CCN area, as requested by Bexar Metropolitan Water District. In connection with this protest and request for hearing, our client would provide you with the following information:

1. Protestant's name: BSR Water Company
12255 West Avenue, Suite 5
San Antonio, TX 78216
Daytime phone: (210) 342-5214
Legal representative: David L. Earl
Earl & Brown, P.C.
111 Soledad, Suite 1111
San Antonio, TX 78205
Daytime phone: (210) 222-1500

2. Applicant's name: Bexar Metropolitan Water District
Application for expansion to amend water CCN No. 10675

3. Description of adverse effect: Bexar Metropolitan Water District's application to amend and expand CCN No. 10675 will result in additional withdrawal of water from the Lower Trinity Aquifer. BSR Water Company holds a CCN to provide water service to property within close proximity to the proposed expansion of CCN No. 10675. BSR Water Company will serve future customers within the boundaries of its CCN, as they exist now or may be expanded, utilizing water from the Lower Trinity Aquifer. In addition, BSR Water Company has entered into a contract with the San Antonio Water System to provide wholesale water from within its CCN sourced in the Lower Trinity to the San Antonio Water System for retail sale to customers within the San Antonio Water System's CCN. Additional withdrawals on the Lower Trinity made by Bexar Metropolitan Water District may have a direct negative impact on BSR Water Company's ability to

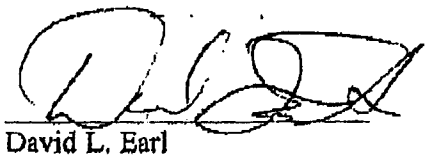
serve future customers within its CCN as it exists today or may be expanded, as well as to continue to comply with contractual requirements to provide wholesale water from the Lower Trinity to the San Antonio Water System and other potential wholesale customers. In addition to the reasons stated above, BSR Water Supply Company has plans to expand its CCN to the north, west and northwest of its current location. The proposed expansion by Bexar Metropolitan Water District may be in direct conflict to the proposed plans for expansion by BSR Water Company. For the reasons addressed above, **we request a public hearing with respect to the above referenced application of Bexar Metropolitan Water District**, and hereby formally protest same.

4. Proposed adjustment: BSR Water Company believes that there may be an equitable and reasonable adjustment which may be made to satisfy its concerns and possibly result in a withdrawal of its request for a hearing and its protest of Bexar Metropolitan Water District's application to amend its CCN. The potential agreements may include the following: 1) recognition of BSR Water Company's priority to groundwater from the Trinity during times of drought or limited rainfall, 2) cooperative agreements with respect to withdrawals from the Trinity, or contracts for Bexar Metropolitan Water District to purchase wholesale Trinity water from BSR Water Company rather than drill new wells to serve its expanded CCN area. The above may all be potential adjustments to the application or to Bexar Metropolitan Water District's existing CCN, which may satisfy BSR Water Company's concerns and potentially cause BSR Water Company to withdraw its request for a hearing and protest.

In light of the above protest and request for hearing, we respectfully request that the Executive Director of the TNRCC not issue the CCN amendment, and that the application be forwarded to the State Office of Administrative Hearings for proper action. If you have any questions or require further information or clarification with respect to the contents of this letter, please do not hesitate to contact our office at (210) 222-1500. Thank you in advance for your consideration in this matter.

I remain sincerely,

**EARL & BROWN**
**A Professional Corporation**

By: 
David L. Earl
Attorney for BSR Water Company

Cc: BSR Water Company, c/o Sunny Sneckner *Via Fax: (210) 342-1034*

F:\041\TNRCC ltr ProtestRequestHearing 052901