

Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Glenn Shankle, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 24, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 5 - Ammann Road Booster Pump Station; Located on north side of Ammann Road, approximately 1,700' west of FM 3351; Comal County, Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer, Edwards Aquifer Protection Program File No. 2115.02, Regulated Entity No. RN, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on June 24, 2004. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)(C)).

### PROJECT DESCRIPTION

The proposed project is for the construction of one booster pump station located on 2.064 acres. The total disturbed area and proposed impervious cover for the development is approximately 0.289 acres (14.0% of the total area of the site) and will include three water pumps, a pump building, two-162,000 gallon drinking water storage tanks, site piping, control valves, electrical supply and switchgear.

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210/490-3096 • FAX 210/545-4329

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)

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Mr. Gary Asbury  
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The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to roof, gravel access drive, sidewalks and a gravel parking area.

#### PERMANENT POLLUTION ABATEMENT MEASURES

The applicant requests an exception from the requirement of permanent treatment of stormwater runoff at this site which will have less than 20% impervious cover and low vehicle traffic. In addition, this site will have a small amounts of impervious cover relative to the contributing drainage areas, and the pollutant loads and required removals are very small (21 lbs/yr). While BMPs are not proposed, the design will incorporate features to reduce pollution. Driveways will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff. In addition, the site will be grassed, so as to help reduce the quantity of runoff while acting as a sediment barrier to further minimize the quantity of pollutants leaving the site.

The applicant further argues that the exception be granted under the "small business" provision because these sites will not generate significant amounts of vehicular traffic or other intensive activities that have the probability of producing unacceptable levels of pollution. The proposed land use of the site seems to fit the definition of a "small business" from a pollution perspective.

#### SPECIAL CONDITIONS

- I. On December June 24, 2004, the applicant requested a waiver to the requirement for permanent BMPs for this industrial project because the development will have less than 20% impervious cover, small vehicular traffic, and small amounts of TSS calculated to be generated. Based upon the TCEQ's review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.
- II. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

#### STANDARD CONDITIONS

1. Pursuant to Chapter 7, Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

#### Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.

Mr. Gary Asbury

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3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

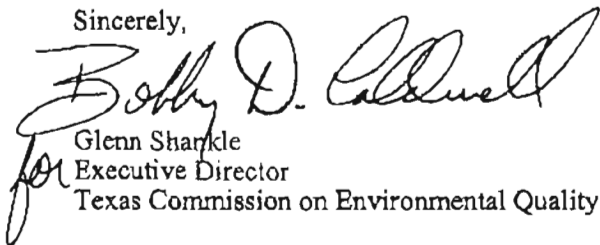
10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

Mr. Gary Asbury  
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11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,

  
Glenn Shankle  
Executive Director  
Texas Commission on Environmental Quality

GS/JKM/eg

Enclosure: Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc: Mr. Duwain Whitis, P.E., HDR Engineering, Inc.  
Mr. Tom Hornseth, Comal County  
cc: Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212



Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Margaret Hoffman, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 19, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 4 - Water Treatment Plant (WTP) & Raw Water Control Tanks (RWCT); WTP located on east side of FM 3159, approximately 5.7 miles south of FM 2673, RWCT located on east side of FM 3159, approximately 5.0 miles south of FM 2673; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
Edwards Aquifer Protection Program File No. 2141.00, Regulated Entity No. RN104161435, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Karen Pappas, P.E. of Malcolm Pirnie, Inc. on behalf of the Guadalupe Blanco River Authority on February 10, 2004. Additional information was received on May 13, 2004. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)©).

### PROJECT DESCRIPTION

The proposed commercial project will be located at two sites on 27.5 acres. The proposed impervious cover for the total development is approximately 3.3 acres (12% of the total area of the site) and will include:

1. A 27 acre raw water treatment plant (WTP), which includes a control building, membrane building, two-two million gallon treated water storage tanks, process tanks, pumps, concrete lined residual lagoons and concrete lined clean in place (CIP) lagoons, chemical storage, treatment and neutralization facilities, including a chlorine building (2, 1-ton gaseous chlorine tanks), and parking. The proposed impervious cover for the facility and access drive is 3.1 acres (11.48%). The facility will have permanent staff, and according to Permit 85051 issued by Comal County, and dated, January 5, 2004, an on-site sewage facility (OSSF) may be constructed at the site. Backwash water will be recycled and evaporated. Dried residuals will be removed from the site for appropriate disposal. Neutralized cleaning chemicals from the treatment process will be directed to the CIP lagoon for evaporation.

The facility will have the aboveground storage tanks (AST) for the process chemicals listed in the tables below. Table I lists the ASTs (1 & 6) that will have 150% controlled drainage. Table II lists the ASTs (2, 3, 4 & 5) that will be inside buildings and have 110% controlled drainage.

Table I							
AST	Gallons	Tank Material	Contents of Tank	Length (feet)	Width (feet)	Depth (feet)	Total
1	5,000	Fiberglass reinforced plastic (FRP)	Caustic (for pH adjustment)	44	26	3	1,130 ft <sup>3</sup> (8,450 gal)
6	20,000	FRP	Ferric Sulfate (Bulk)	44	26	3.5	4,244 ft <sup>3</sup> (31,749 gal)
Total	25,000	--	--	--	--	--	5374 ft <sup>3</sup> (40,199 gal)

The described ASTs (1 & 6) are to be placed within a chemical resistant coated concrete controlled drainage containment area with the dimensions listed in the table above, yielding a total containment of greater than 150% of the total storage capacity of the facility. Any spillage will be directed to a convenient point within the containment structure for collection and recovery.

For AST 1, piping to the chemical feed pumps will be within contained areas. Piping from the feed pumps exit the building underground, and are then routed to the treated water tanks.

For AST 6, piping to the day tank and feed pumps will be within the contained areas. Piping from the feed pumps exit the membrane building underground and remain underground until the feed point at the rapid mixer.

Table II							
AST	Gallons	Tank Material	Contents of Tank	Length (feet)	Width (feet)	Depth (feet)	Total
2	6,200	FRP	Empty holding tank for neutralization of membrane cleaning chemical	56	33	1.5	2,772 ft <sup>3</sup> (20,736 gal)
3	2,500	FRP	Caustic (NaOH for membrane cleaning)				
4	2,500	FRP	Acid (Citric or HCl for membrane cleaning)				
5	1,250	FRP	Ferric Sulfate (Fe <sub>3</sub> SO <sub>4</sub> ) (Day tank)	28	13	1	364 ft <sup>3</sup> (2,723 gal)
Total	12,450	--	--	--	--	--	3,136 ft <sup>3</sup> (23,459 gal)

For ASTs 2, 3 & 4, piping to equipment will remain inside the building and constructed within a trench in the building slab. PVC piping from AST #5 will exit the building underground and continue to a rapid mixer.

2. A 0.45 acre raw water control tank (RWCT) facility which includes 2-162,000 gallon, steel aboveground water tanks, related piping, and parking. The proposed impervious cover for the facility and access drive is 0.23 acres (53%).

### PERMANENT POLLUTION ABATEMENT MEASURES

The 27 acre raw water treatment plant (WTP) will treat storm water runoff from five drainage areas with vegetated filters. In lieu of storm water treatment for the 0.45 acre raw water control tank site, overtreatment will be provided by vegetated filters 2 and 3 on the 27 acre site. This information is summarized in Table 1 below.

The vegetated filter strips are designed in accordance with the 1999 edition of the TNRCC's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices." The filter strip will:

1. be contiguous with developed area,
2. be at the same elevation as the developed area,
3. have a level spreading device, and
4. be sized to filter storm water run-off from 3.50 acres of impervious cover.

Table 1					
	Area	Impervious Cover (Acres)	TSS load to be treated	Vegetated Filter (Acres)	TSS Treated
27 acre raw water treatment plant	1	0.46	348.0	0.20	376.7
	2	2.14	755.0	1.18	834.8
	3	2.36	831.5	1.14	919.4
	4	2.33	820.1	0.79	906.8
	5a	0.28	99.9	0.13	110.4
	5b	0.12	42.2	0.06	46.7
0.45 acre raw water control tank site	1	0.45	159.0	0.00	0.00
Total	-----	8.14	3,055.8	3.50	3,194.9

### SPECIAL CONDITIONS

- I. Please note that Standard Condition #10 below applies to all permanent best management practices, including vegetated filters.
- II. The vegetated filter is designed in accordance with the 1999 edition of the TNRCC's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices." The vegetated filter will be constructed as described above.

- III. All permanent storm water treatment measures must be operational prior to commencement of any commercial activity.
- IV. Intentional discharges of sediment laden storm water during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

#### STANDARD CONDITIONS

- 1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

#### Prior to Commencement of Construction:

- 2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.
- 3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
- 4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
- 5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor storm water discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.



During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to storm water shall be prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

Mr. Gary Asbury

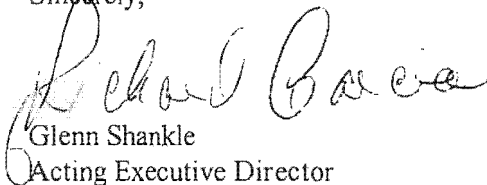
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13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,



Glenn Shankle

Acting Executive Director

Texas Commission on Environmental Quality

GS/jkm

Enclosure(s): Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

cc: Ms. Karen Pappas, P.E., Malcolm Pirnie, Inc.  
Mr. Tom Hornseth, Comal County  
Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212

Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Margaret Hoffman, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

February 19, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 1 - Raw Water Intake and Pump Station; Located on the south shore of Canyon Lake, within the US Army Corps of Engineers' Comal Park; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
Edwards Aquifer Protection Program File No. 2115.00, Regulated Entity No. RN102676814, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on December 17, 2003. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)©).

### PROJECT DESCRIPTION

The proposed commercial project will be located at two sites on 1.777 acres. The proposed impervious cover for the development is approximately 0.327 acres (18.4% of the total area of the site) and will include:



1. A 0.945 acre raw water intake facility and pump station built within the US Army Corps of Engineers' (USACE) Comal Park, which includes a vertical shaft, lake taps, wet well liner, concrete work, installation of pumps, building, site work, electrical supply and switchgear, and the raw water pipeline to the USACE property line (200 linear feet). The proposed impervious cover for the intake facility and access easement is 0.234 acres (25%), less the 2,845 ft<sup>2</sup> of roof draining to the wet well for a net impervious cover of 0.168 acres (18%).

The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to the gravel access drive, sidewalks and pavement around the building. Drainage from the roof will be directed into the wet-well where it will be pumped to the treatment plant.

2. A 0.832 acre raw water chemical feed facility which includes a building, walks and driveway, and 120 linear feet of water pipe from the intake facility. The building will house one 1,200 gallon aboveground storage tank (AST) of 12.5% sodium hypochlorite solution (disinfectant for control of microorganisms) within a 1,628 gallon reinforced concrete containment structure. The proposed impervious cover for the raw water chemical feed facility is with 0.093 acres (11.2%).

The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to the gravel access drive and the building's roof.

3. Approximately 2,870 linear feet of raw water pipeline will be constructed to connect the raw water intake facility and pump station with the raw water chemical feed facility.

#### PERMANENT POLLUTION ABATEMENT MEASURES

The applicant requests an exception from the requirement of permanent treatment of stormwater runoff at the two sites. Each of the two sites will have less than 20% net impervious cover. In addition, both sites have small amounts of impervious cover relative to the contributing drainage areas, and the pollutant loads and required removals are very small (6 lbs/yr at the raw water chemical feed facilities, and 16 lbs/yr at the raw water intake facility). While BMPs are not proposed, the design will incorporate features to reduce pollution. Driveways will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff.

The applicant further argues that the exception be granted under the "small business" provision because these sites will not generate significant amounts of vehicular traffic or other intensive activities that have the probability of producing unacceptable levels of pollution. The proposed land use of the site seems to fit the definition of a "small business" from a pollution perspective.

SPECIAL CONDITIONS

- I. On December 17, 2003, the applicant requested a waiver to the requirement for permanent BMPs for this industrial project because the development will have less than 20% impervious cover, small vehicular traffic, and small amount of TSS calculated to be generated. Based upon the TCEQ's review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.
- II. Except for the raw water intake facility and pump station owned by the US Army Corps of Engineers, within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
- III. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.
3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.



Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Margaret Hoffman, *Executive Director*



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COUNTY ENGINEER

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

February 19, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 1 - Raw Water Intake and Pump Station; Located on the south shore of Canyon Lake, within the US Army Corps of Engineers' Comal Park; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
Edwards Aquifer Protection Program File No. 2115.00, Regulated Entity No. RN102676814, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on December 17, 2003. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)(C)).

### PROJECT DESCRIPTION

The proposed commercial project will be located at two sites on 1.777 acres. The proposed impervious cover for the development is approximately 0.327 acres (18.4% of the total area of the site) and will include:

SPECIAL CONDITIONS

- I. On December 17, 2003, the applicant requested a waiver to the requirement for permanent BMPs for this industrial project because the development will have less than 20% impervious cover, small vehicular traffic, and small amount of TSS calculated to be generated. Based upon the TCEQ's review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.
- II. Except for the raw water intake facility and pump station owned by the US Army Corps of Engineers, within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
- III. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.
3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

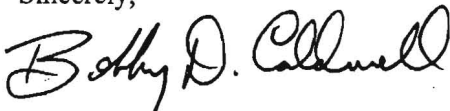


Mr. Gary Asbury  
Page 5  
February 19, 2004

12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,



for Margaret Hoffman  
Executive Director  
Texas Commission on Environmental Quality

MH/JKM/eg

Enclosure: Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc: Mr. Duwain Whitis, P.E., HDR Engineering, Inc.  
cc: Mr. Tom Hornseth, Comal County  
Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212

Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Glenn Shankle, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 24, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 5 - Ammann Road Booster Pump Station; Located on north side of Ammann Road, approximately 1,700' west of FM 3351; Comal County, Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer, Edwards Aquifer Protection Program File No. 2115.02, Regulated Entity No. RN, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on June 24, 2004. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)(C)).

### PROJECT DESCRIPTION

The proposed project is the for the construction of one booster pump station located on 2.064 acres. The total disturbed area and proposed impervious cover for the development is approximately 0.289 acres (14.0% of the total area of the site) and will include three water pumps, a pump building, two-162,000 gallon drinking water storage tanks, site piping, control valves, electrical supply and switchgear.

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210/490-3096 • FAX 210/545-4329

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Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Margaret Hoffman, *Executive Director*



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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

February 19, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 1 - Raw Water Intake and Pump Station; Located on the south shore of Canyon Lake, within the US Army Corps of Engineers' Comal Park; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
Edwards Aquifer Protection Program File No. 2115.00, Regulated Entity No. RN102676814, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on December 17, 2003. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)©).

### PROJECT DESCRIPTION

The proposed commercial project will be located at two sites on 1.777 acres. The proposed impervious cover for the development is approximately 0.327 acres (18.4% of the total area of the site) and will include:



1. A 0.945 acre raw water intake facility and pump station built within the US Army Corps of Engineers' (USACE) Comal Park, which includes a vertical shaft, lake taps, wet well liner, concrete work, installation of pumps, building, site work, electrical supply and switchgear, and the raw water pipeline to the USACE property line (200 linear feet). The proposed impervious cover for the intake facility and access easement is 0.234 acres (25%), less the 2,845 ft<sup>2</sup> of roof draining to the wet well for a net impervious cover of 0.168 acres (18%).

The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to the gravel access drive, sidewalks and pavement around the building. Drainage from the roof will be directed into the wet-well where it will be pumped to the treatment plant.

2. A 0.832 acre raw water chemical feed facility which includes a building, walks and driveway, and 120 linear feet of water pipe from the intake facility. The building will house one 1,200 gallon aboveground storage tank (AST) of 12.5% sodium hypochlorite solution (disinfectant for control of microorganisms) within a 1,628 gallon reinforced concrete containment structure. The proposed impervious cover for the raw water chemical feed facility is with 0.093 acres (11.2%).

The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to the gravel access drive and the building's roof.

3. Approximately 2,870 linear feet of raw water pipeline will be constructed to connect the raw water intake facility and pump station with the raw water chemical feed facility.

#### PERMANENT POLLUTION ABATEMENT MEASURES

The applicant requests an exception from the requirement of permanent treatment of stormwater runoff at the two sites. Each of the two sites will have less than 20% net impervious cover. In addition, both sites have small amounts of impervious cover relative to the contributing drainage areas, and the pollutant loads and required removals are very small (6 lbs/yr at the raw water chemical feed facilities, and 16 lbs/yr at the raw water intake facility). While BMPs are not proposed, the design will incorporate features to reduce pollution. Driveways will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff.

The applicant further argues that the exception be granted under the "small business" provision because these sites will not generate significant amounts of vehicular traffic or other intensive activities that have the probability of producing unacceptable levels of pollution. The proposed land use of the site seems to fit the definition of a "small business" from a pollution perspective.

SPECIAL CONDITIONS

- I. On December 17, 2003, the applicant requested a waiver to the requirement for permanent BMPs for this industrial project because the development will have less than 20% impervious cover, small vehicular traffic, and small amount of TSS calculated to be generated. Based upon the TCEQ's review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.
- II. Except for the raw water intake facility and pump station owned by the US Army Corps of Engineers, within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
- III. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.
3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

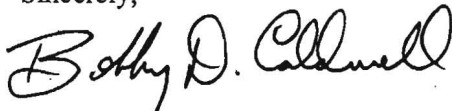
10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

Mr. Gary Asbury  
Page 5  
February 19, 2004

12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
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14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,



for Margaret Hoffman  
Executive Director  
Texas Commission on Environmental Quality

MH/JKM/eg

Enclosure: Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc: Mr. Duwain Whitis, P.E., HDR Engineering, Inc.  
cc: Mr. Tom Hornseth, Comal County  
Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212



Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Glenn Shankle, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 24, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 5 - Ammann Road Booster Pump Station; Located on north side of Ammann Road, approximately 1,700' west of FM 3351; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer, Edwards Aquifer Protection Program File No. 2115.02, Regulated Entity No. RN, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Duwain Whitis, P.E. of HDR Engineering, Inc. on behalf of the Guadalupe Blanco River Authority on June 24, 2004. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)(C)).

### PROJECT DESCRIPTION

The proposed project is for the construction of one booster pump station located on 2.064 acres. The total disturbed area and proposed impervious cover for the development is approximately 0.289 acres (14.0% of the total area of the site) and will include three water pumps, a pump building, two-162,000 gallon drinking water storage tanks, site piping, control valves, electrical supply and switchgear.

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210/490-3096 • FAX 210/545-4329

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Mr. Gary Asbury

Page 2

August 24, 2004

The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by this project. No regular activities at the site will generate any wastes, and no other hazardous materials will be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to roof, gravel access drive, sidewalks and a gravel parking area.

#### PERMANENT POLLUTION ABATEMENT MEASURES

The applicant requests an exception from the requirement of permanent treatment of stormwater runoff at this site which will have less than 20% impervious cover and low vehicle traffic. In addition, this site will have a small amounts of impervious cover relative to the contributing drainage areas, and the pollutant loads and required removals are very small (21 lbs/yr). While BMPs are not proposed, the design will incorporate features to reduce pollution. Driveways will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff. In addition, the site will be grassed, so as to help reduce the quantity of runoff while acting as a sediment barrier to further minimize the quantity of pollutants leaving the site.

The applicant further argues that the exception be granted under the "small business" provision because these sites will not generate significant amounts of vehicular traffic or other intensive activities that have the probability of producing unacceptable levels of pollution. The proposed land use of the site seems to fit the definition of a "small business" from a pollution perspective.

#### SPECIAL CONDITIONS

- I. On December June 24, 2004, the applicant requested a waiver to the requirement for permanent BMPs for this industrial project because the development will have less than 20% impervious cover, small vehicular traffic, and small amounts of TSS calculated to be generated. Based upon the TCEQ's review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the Contributing Zone Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.
- II. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

#### STANDARD CONDITIONS

1. Pursuant to Chapter 7, Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

#### Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.



Mr. Gary Asbury

Page 3

August 24, 2004

3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

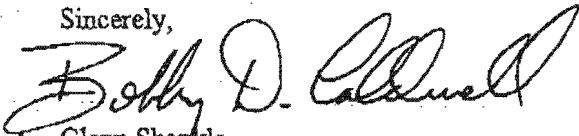
10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

Mr. Gary Asbury  
Page 4  
August 24, 2004

11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,

  
for Glenn Shankle  
Executive Director  
Texas Commission on Environmental Quality

GS/JKM/eg

Enclosure: Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc: Mr. Duwain Whitis, P.E., HDR Engineering, Inc.  
Mr. Tom Hornseth, Comal County  
cc: Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212



Tom Palmer

830-

227-5420

Gus Reitzart

Bretzke

Mike

882-9634

Brooklyn

1000

1001

22'

June 21, 2004

Ms. Lynn M. Bumgardner  
Environmental Investigator  
Texas Commission on Environmental Quality  
c/o San Antonio Regional Office, Water Section Manager  
14250 Judson Rd.  
San Antonio, TX 78233-4480

RECEIVED  
JUN 25 2004  
COUNTY ENGINEER

Reference: Edwards Aquifer Contributing Zone Plan  
for Guadalupe Blanco River Authority  
Western Canyon Regional Water Supply System  
Contract 5 – Booster Pump Stations

Dear Ms. Bumgardner:

Enclosed please find our application for an Edwards Aquifer Contributing Zone Plan for the referenced project. We request that you review and approve the application.

The application includes the following materials:

- TCEQ Core Data Form
- Contributing Zone Plan Application
- Attachment A – Road Map
- Attachment B - USGS Quadrangle Maps
- Attachment C – Project Narrative
- Attachment D – Factors Affecting Surface Water Quality
- Attachment E – Volume and Character of Storm Water
- Attachment I – 20% or Less Impervious Cover Waiver
- Attachment M – Construction Plans
- Attachment P – Measures for Minimizing Surface Stream Contamination
- Stormwater Pollution Prevention Plan (included in Attachment M, above)
- Draft Notice of Intent (NOI)
- Agent Authorization Form
- Contributing Zone Application Fee Form
- Check for \$250 payable to TCEQ.

Regarding Attachment I, the request for a waiver from construction of BMPs, the technical rationale for the request is explained in the attachment. However, we request that the waiver be granted under the “small business” provision. “Small business” is not defined, but we would interpret it to mean a business-related land use that does not generate significant amounts of vehicular traffic or other intensive activities that have the probability of producing unacceptable levels of pollution. The proposed land use of the site seems to fit the definition of a “small business” from a pollution perspective.

RECEIVED - TCEQ  
JUN 23 PM 4:42  
SAN ANTONIO REGION

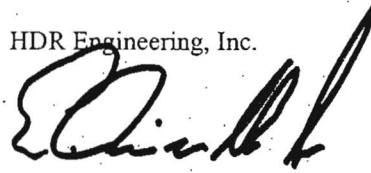
June 21, 2004  
Ms. Lynn M. Bumguardner  
Page 2

Régarding the NOI, please note that the Construction Site Operator will be the construction contractor, which will be required to submit the final NOI. The construction contractor will be selected through a public bidding process that has not yet occurred.

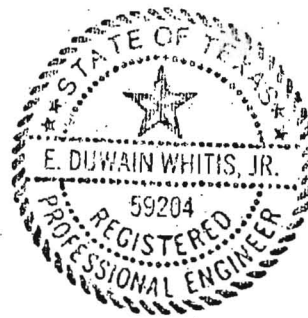
Please contact me if you have any questions or comments regarding this application by email ([duwain.whitis@hdrinc.com](mailto:duwain.whitis@hdrinc.com)) or phone (512-912-5112).

Sincerely,

HDR Engineering, Inc.



E. Duwain Whitis, Jr. P.E.  
Project Manager



copy: Gary Asbury, GBRA

attachments

# TCEQ Core Data Form

TCEQ Use Only

If you have questions on how to fill out this form or about our Central Registry, please contact us at 512-239-5175.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

## SECTION I: General Information

<b>1. Reason for Submission</b> <i>Example: new wastewater permit; IHW registration; change in customer information; etc.</i>			
New raw water intake, pipeline, water treatment plant, and treated water transmission system			
<b>2. Attachments</b>		Describe Any Attachments: (ex: Title V Application, Waste Transporter Application, etc.)	
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Edwards Aquifer Contributing Zone Plan	
<b>3. Customer Reference Number-if issued</b>		<b>4. Regulated Entity Reference Number-if issued</b>	
CN	601180565	(9 digits)	RN 102676814 (9 digits)

## SECTION II: Customer Information

<b>5. Customer Role (Proposed or Actual) -- As It Relates to the Regulated Entity Listed on This Form</b>					
Please check one of the following:		Owner	Operator	<input checked="" type="checkbox"/> Owner and Operator	
Occupational Licensee		Volunteer Cleanup Applicant		Other	
TCEQ Use Only		Superfund	PST	Respondent	
<b>6. General Customer Information</b>					
New Customer			Change to Customer Information		
Change in Regulated Entity Ownership			<input checked="" type="checkbox"/>	No Change *	
*If A No Change and Section I is complete, skip to Section III - Regulated Entity Information.					
<b>7. Type of Customer:</b>					
Individual		Sole Proprietorship - D.B.A.			
Partnership		Corporation			
State Government		Federal Government			
County Government		City Government			
Other Government		Other:			
<b>8. Customer Name (If an individual, please print last name first)</b> <i>If new name, enter previous name:</i>					
<b>9. Mailing Address:</b>					
City State ZIP ZIP + 4					
<b>10. Country Mailing Information if outside USA</b>			<b>11. E-Mail Address if applicable</b>		
<b>12. Telephone Number</b>		<b>13. Extension or Code</b>		<b>14. Fax Number if applicable</b>	
<b>15. Federal Tax ID (9 digits)</b>		<b>16. State Franchise Tax ID Number if applicable</b>		<b>17. DUNS Number if applicable (9 digits)</b>	
<b>18. Number of Employees</b>					<b>19. Independently Owned and Operated?</b>
0-20	21-100	101-250	251-500	501 and higher	Yes No

## SECTION III: Regulated Entity Information

<b>20. General Regulated Entity Information</b>			
<input checked="" type="checkbox"/> New Regulated Entity	Change to Regulated Entity Information		<input type="checkbox"/> No Change*
*If "No Change" and Section I is complete, skip to Section IV - Preparer Information.			



<b>21. Regulated Entity Name (If an individual, please print last name first)</b>					
Western Canyon Regional Water Supply System					
<b>22. Street Address</b> (No PO Boxes)					
Cranes Mill Road					
City		State	ZIP	ZIP + 4	
Canyon Lake		TX	78133		
<b>23. Mailing Address</b>		TBD			
City		State	ZIP	ZIP + 4	
<b>24. E-Mail Address:</b>		TBD			
<b>25. Telephone Number</b>		<b>26. Extension or Code</b>		<b>27. Fax Number if applicable</b>	
TBD				TBD	
<b>28. Primary SIC Code</b> (4 digits)	<b>29. Secondary SIC Code</b> (4 digits)	<b>30. Primary NAICS Code</b> (5 or 6 digits)		<b>31. Secondary NAICS Code</b> (5 or 6 digits)	
4941		221310			
<b>32. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description)</b>					
Treat water from Canyon Lake and distribute it to wholesale customers.					
<b>Questions 33 - 37 address geographic location. Please refer to the instructions for applicability.</b>					
<b>33. County</b>		Comal			
<b>34. Description of Physical Location</b>					
Plant is south east of the intersection of FM 3159 and Cranes Mill Road. Entrance is from Cranes Mill Road.					
<b>35. Nearest City</b>		<b>State</b>	<b>Nearest Zip</b>		
Canyon Lake		TX	78133		
<b>36. Latitude (N)</b>		<b>37. Longitude (W)</b>			
<b>Degrees</b>	<b>Minutes</b>	<b>Seconds</b>	<b>Degrees</b>	<b>Minutes</b>	<b>Seconds</b>
29°	49'	00"	98°	17'	30"
<b>38. TCEQ Programs In Which This Regulated Entity Participates</b> <i>Not all programs have been listed. Please add to this list as needed. If you don't know or are unsure, please mark "Unknown". If you know a permit or registration # for this entity, please write it below the program.</i>					
Animal Feeding Operation		Petroleum Storage Tank	×	Water Rights (through customer)	
Title V - Air		Wastewater Permit			
Industrial & Hazardous Waste		Water Districts			
Municipal Solid Waste		×	Water Utilities	Unknown	
New Source Review - Air		Licensing - TYPE(s)			
<b>Section IV: Preparer Information</b>					
<b>39. Name</b>			<b>40. Title</b>		
Karen Pappas			Project Engineer		
<b>41. Telephone Number</b>		<b>42. Extension or Code</b>		<b>43. Fax Number if applicable</b>	
(210) 366-8747				(210) 366-8748	
<b>44. E-mail Address:</b> kpappas@pirnie.com					

**Contributing Zone Plan Application**  
for Regulated Activities  
on the Contributing Zone to the Edwards Aquifer  
and Relating to 30 TAC §213.24(1), Effective June 1, 1999

RECEIVED  
JUN 25 2004  
COUNTY ENGINEER

Regulated Entity Name: Guadalupe Blanco River Authority

County: Comal Stream Basin: San Antonio River via Cibolo Creek

1. ☐ Regulated activities on this site will disturb at least 5 acres.  
☒ Regulated activities on this site will disturb less than 5 acres and are part of a larger common plan of development or sale with the potential to disturb cumulatively five or more acres.

2. Customer (Applicant):

Contact Person: Gary Asbury  
Entity: Guadalupe Blanco River Authority  
Mailing Address: 933 East Court Street  
City, State: Sequin, Texas Zip: 78155  
Telephone: 830-379-5822 FAX: 830-379-9718

Agent/Representative (If any):

Contact Person: Duwan Whitis, P.E.  
Title: Project Manager  
Entity: HDR Engineering, Inc.  
Mailing Address: 2211 South IH 35, Suite 300  
City, State: Austin, TX Zip: 78741  
Telephone: 512-912-5112 FAX: 512-912-5158

3. ☐ This project is inside the city limits of \_\_\_\_\_.  
☐ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of \_\_\_\_\_.  
☒ This project is not located within any city's limits or ETJ.

4. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

Contract 5 – Booster Pump Stations and Customer Delivery Facilities — Ammann Road Booster Pump Station —  
From the City of Bergheim, take FM 3351 south, turn right on Ammann Road, go approximately 1,700 LF and the booster station is on the right.

5. ☒ **ATTACHMENT A - Road Map.** A road map showing directions to and the location of the project site is found as at the end of this form.
6. ☒ **ATTACHMENT B - USGS Quadrangle Map.** A copy of the a USGS Quadrangle Map (Scale: 1" = 2000') is found at the end of this form. The map(s) clearly shows:  
☒ Project site boundaries.  
☒ USGS Quadrangle Name(s).
7. ☒ **ATTACHMENT C - Project Narrative.** A detailed narrative description of the proposed project is found at the end of this form.

8. Existing project site conditions are noted below:
- ☐ Existing commercial site
  - ☐ Existing industrial site
  - ☐ Existing residential site
  - ☐ Existing paved and/or unpaved roads
  - ☐ Undeveloped (Cleared)
  - ☒ Undeveloped (Undisturbed/Uncleared)
  - ☐ Other \_\_\_\_\_

### PROJECT INFORMATION

9. The type of project is:
- ☐ Residential: # of Lots: \_\_\_\_\_
  - ☐ Residential: # of Living Unit Equivalents: \_\_\_\_\_
  - ☐ Commercial
  - ☐ Industrial
  - ☒ Other: Booster Pump Station for Public Water Supply System
10. Total project area (size of site): 2.064 Acres (excludes pipeline easement)  
 Total disturbed area: 0.289 Acres (excludes pipeline easement)
11. Projected population: 0
12. The amount and type of impervious cover expected after construction is complete is shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	3582	÷ 43,560 =	0.082
Parking	6273	÷ 43,560 =	0.144
Other paved surfaces	2725	÷ 43,560 =	0.063
Total Impervious Cover	12580	÷ 43,560 =	0.289
Total Impervious Cover ÷ Total Acreage x 100 =			14%

13. ☒ **ATTACHMENT D - Factors Affecting Surface Water Quality.** A description of factors that could affect surface water quality is found as at the end of this form. If applicable, this should included the location and description of any discharge associated with industrial activity other than construction.
14. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

### FOR ROAD PROJECTS ONLY

Complete questions 15-20 if this application is exclusively for a road project.

15. Type of project:
- ☐ TXDOT road project.
  - ☐ County road or roads built to county specifications.

- ☐ City thoroughfare or roads to be dedicated to a municipality.  
☐ Street or road providing access to private driveways.
16. Type of pavement or road surface to be used:
- ☐ Concrete  
☐ Asphaltic concrete pavement  
☐ Other: \_\_\_\_\_
17. Length of Right of Way (R.O.W.): \_\_\_\_\_ feet.  
 Width of R.O.W.: \_\_\_\_\_ feet.  
 $L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$
18. Length of pavement area: \_\_\_\_\_ feet.  
 Width of pavement area: \_\_\_\_\_ feet.  
 $L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$   
 Pavement area \_\_\_\_\_ acres  $\div$  R.O.W. area \_\_\_\_\_ acres  $\times 100 = \text{_____ \%}$  impervious cover.
19. ☐ A rest stop will be included in this project.  
☐ A rest stop will **not** be included in this project.
20. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

#### STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

21. ☒ **ATTACHMENT E - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is found at the end of this form. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. The runoff coefficient of the site for both pre-construction and post-construction conditions is included.

#### WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

22. Wastewater will be disposed of by: **PROJECT WILL NOT GENERATE WASTEWATER**

☐ On-Site Sewage Facility (OSSF/Septic Tank):

**ATTACHMENT F - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's written approval is provided at the end of this form. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities, or it identifies those areas that are not suitable for the use of private sewage facilities. The system will be designed by a licensed professional engineer or a registered sanitarian and installed by a licensed installer in compliance with 30 TAC §285.

☐ Sewage Collection System (Sewer Lines):

Wastewater is to be disposed of by conveyance to the \_\_\_\_\_ (name) treatment plant for treatment and disposal. The treatment facility is :

- ☐ existing.  
☐ proposed.



- \_\_\_ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

**FOR PERMANENT ABOVEGROUND STORAGE TANKS (ASTs) > 500 GALLONS**

**Complete questions 23-29 if this project includes the installation of AST(s) with volume(s) greater than 500 gallons.**

23. Tanks and substance stored:

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1			
2			
3			
4			
5			
Total		x 1.5 =	gallons

24. \_\_\_ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.
- \_\_\_ **ATTACHMENT G - Alternative Secondary Containment Methods.** Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are found at the end of this form.

25. Inside dimensions and capacity of containment structure(s):

Length (L) (Ft.)	Width (W) (Ft.)	Height (H) (Ft.)	L x W x H = (Ft <sup>3</sup> )	Gallons
Total				

26. \_\_\_ All piping, hoses, and dispensers will be located inside the containment structure.
- \_\_\_ Some of the piping to dispensers or equipment will extend outside the containment structure.
- \_\_\_ The piping will be aboveground
- \_\_\_ The piping will be underground
27. \_\_\_ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of \_\_\_
28. **ATTACHMENT H - AST Containment Structure Drawings.** A scaled drawing of the containment

structure is found at the end of this form that shows the following:

- ☐ Interior dimensions (length, width, depth and wall and floor thickness).
- ☐ Internal drainage to a point convenient for the collection of any spillage.
- ☐ Tanks clearly labeled
- ☐ Piping clearly labeled
- ☐ Dispenser clearly labeled

29. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

- ☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.
- ☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

## SITE PLAN

Items 30 through 41 must be included on the Site Plan.

30. The Site Plan must have a minimum scale of 1" = 400'.  
Site Plan Scale: 1" = 100'.

31. 100-year floodplain boundaries

- ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
- ☒ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):

FEMA FIRM PANEL, 4854630005E

32. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
- ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
33. ☒ A drainage plan showing all paths of drainage from the site to surface streams.
34. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
35. ☒ Areas of soil disturbance and areas which will not be disturbed.
36. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

37. ☐ Locations where soil stabilization practices are expected to occur.
38. ☐ Surface waters (including wetlands).
39. ☒ Locations where stormwater discharges to surface water.  
☐ There will be no discharges to surface water.
40. ☐ Temporary aboveground storage tank facilities.  
☒ Temporary aboveground storage tank facilities will not be located on this site.
41. ☐ Permanent aboveground storage tank facilities.  
☒ Permanent aboveground storage tank facilities will not be located on this site.

**Permanent best management practices (BMPs) and measures that will be used during and after construction is completed.**

42. ☐ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
43. ☐ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
- ☐ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.
- ☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is provided below
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
44. ☐ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.
45. ☐ Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
- ☐ This site will be used for low density single-family residential development and has 20% or less impervious cover.
- ☐ This site will be used for low density single-family residential development but has more than 20% impervious cover.
- ☒ This site will not be used for low density single-family residential development.

46. ☒ The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
- ☒ **ATTACHMENT I - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.
- ☐ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
- ☐ This site will not be used for multi-family residential developments, schools, or small business sites.
47. **ATTACHMENT J - BMPs for Upgradient Stormwater.**
- ☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is provided as **ATTACHMENT J** at the end of this form.
- ☐ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT J** at the end of this form.
- ☐ If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT J** at the end of this form.
48. **ATTACHMENT K - BMPs for On-site Stormwater.**
- ☐ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is provided as **ATTACHMENT K** at the end of this form.
- ☐ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT K** at the end of this form.
49. ☐ **ATTACHMENT L - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams is provided at the end of this form.
50. ☐ **ATTACHMENT M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ Construction Notes, all proposed structural measures, and appropriate details must be shown on the construction plans.
51. ☐ **ATTACHMENT N - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and



measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

52. ☐ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.  
☐ Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.  
☐ **ATTACHMENT O - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.
53. ☒ **ATTACHMENT P - Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided at the end of this form. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increase erosion that results in water quality degradation.

**Responsibility for maintenance of permanent BMPs and measures after construction is complete.**

54. ☐ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
55. ☐ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

**ADMINISTRATIVE INFORMATION**

56. ☒ One (1) original and one (1) copy of the complete application has been provided.
57. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
58. ☒ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

To the best of my knowledge, the responses to this form accurately reflect all information requested

concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **CONTRIBUTING ZONE PLAN APPLICATION** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

DUWAIN WHITIS, P.E.

Print Name of Customer/Agent



Signature of Customer/Agent

6/21/04

Date

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.



P:\07081-4913\Contract-5-Boosters\DWG-CIVL\TCEQ - CZP Att A.dwg  
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BAR LENGTH ON ORIGINAL  
ADJUST SCALE ACCORDINGLY

**MALCOLM  
PIRNIE**

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF REVIEW  
UNDER THE AUTHORITY OF  
E. DUNWAIN WHITIS, JR.  
TEXAS P.E. NO. 58204  
DATE: JUNE 11, 2004  
  
IT IS NOT TO BE USED  
FOR CONSTRUCTION OR  
ANY OTHER PURPOSE.

**HDR**  
HDR Engineering, Inc.

REVISIONS					REMARKS
ISSUE	BY	DATE			

PROJECT MANAGER  
E. D. WHITIS  
DESIGNED  
S. D. BEROSET  
DESIGNED  
E. D. WHITIS  
CHECKED  
DRAWN  
M. E. WAUER

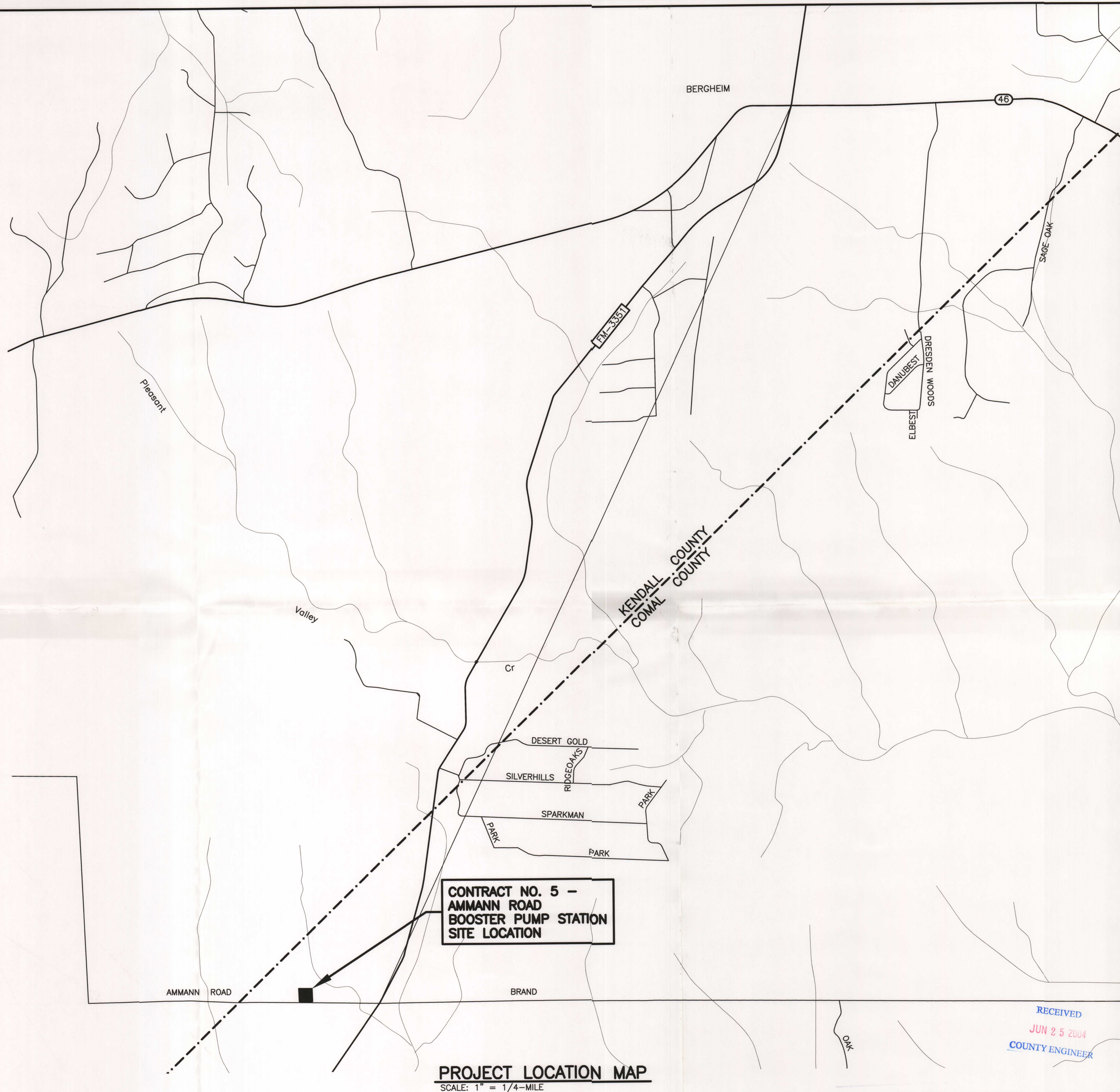
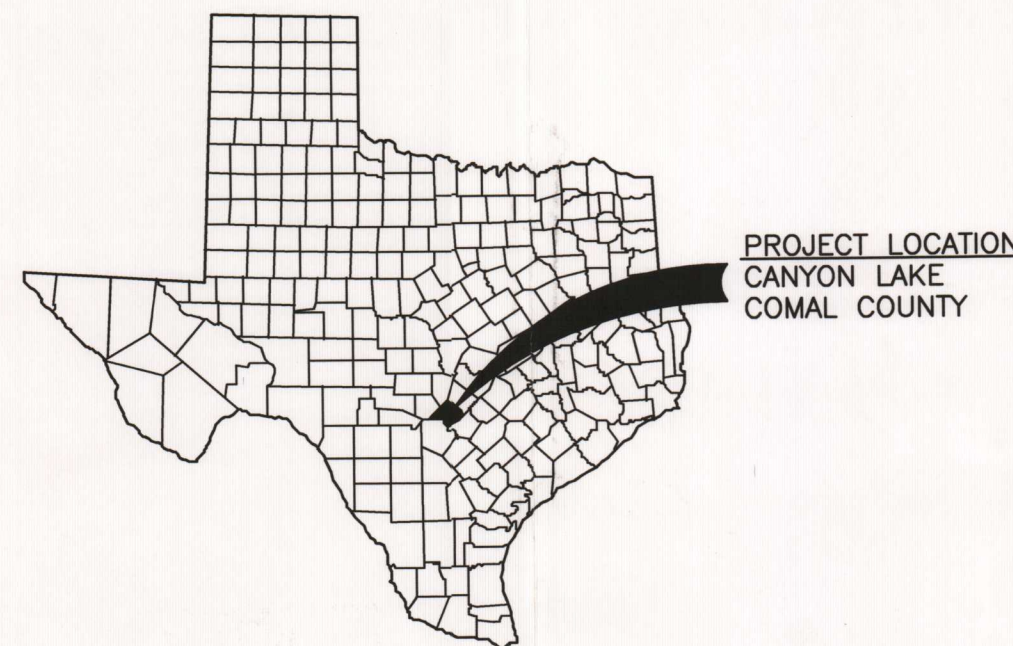
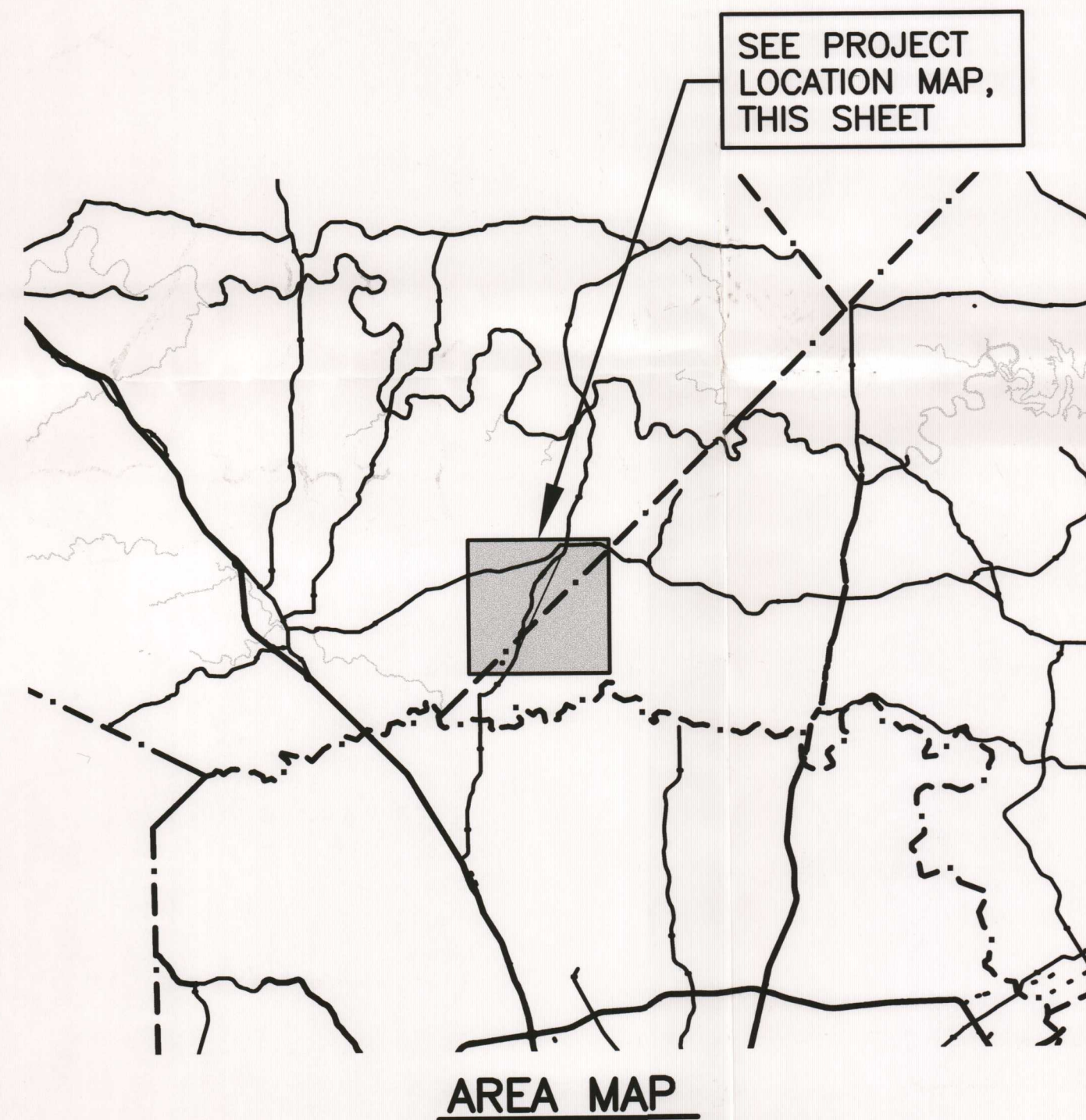


**GUADALUPE-BLANCO RIVER AUTHORITY**  
WESTERN CANYON REGIONAL WATER SUPPLY PROJECT  
  
CONTRACT NO. 5  
BOOSTER PUMP STATIONS AND  
CUSTOMER DELIVERY FACILITIES

**ATTACHMENT A  
ROAD MAP**

SAN ANTONIO REGION  
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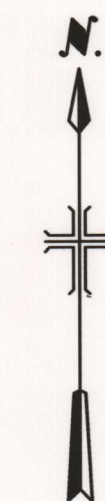
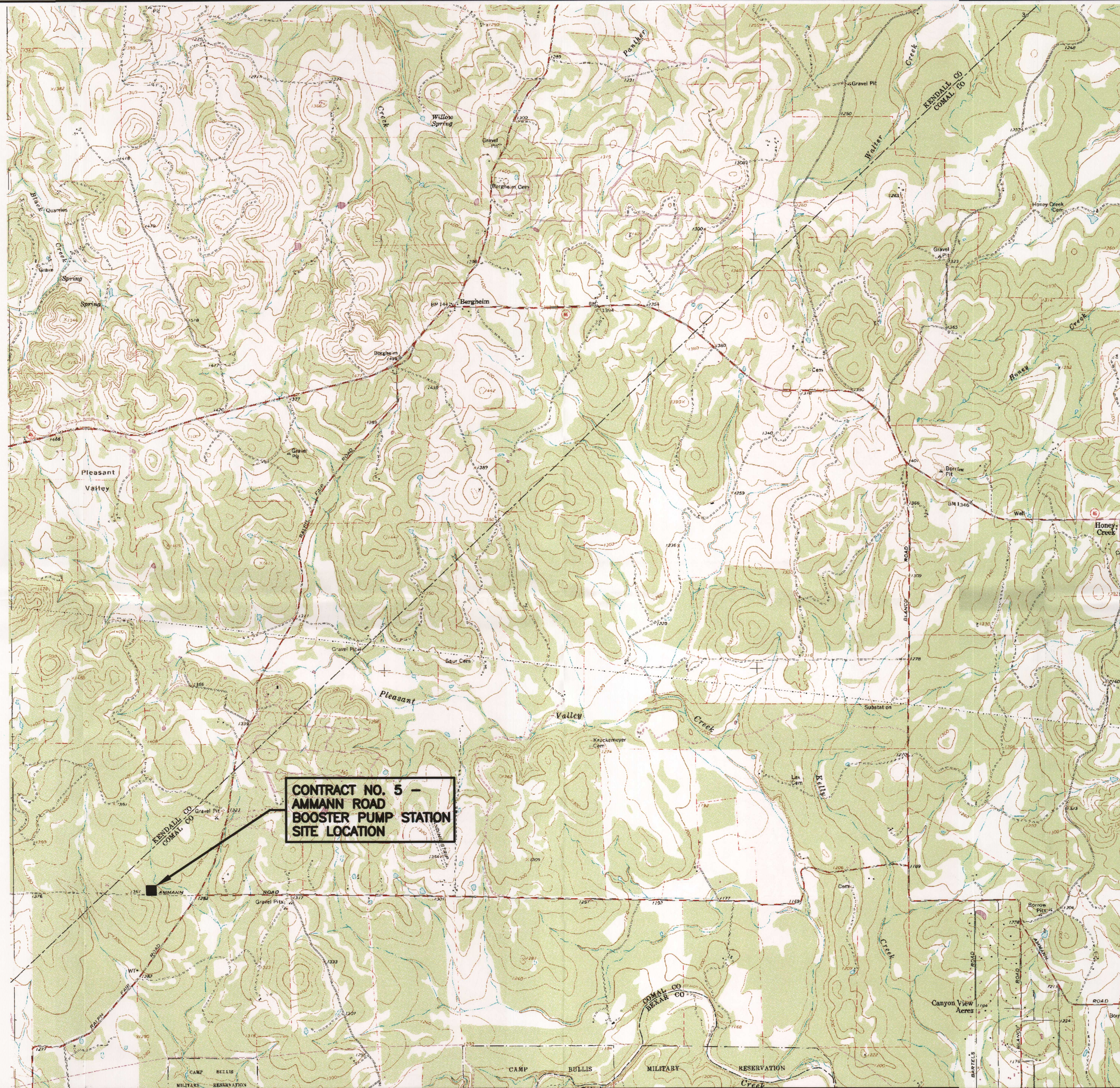
DATE JULY 2004  
SCALE AS NOTED  
FILE NAME TCEQ - CZP ATT A.DWG  
SHEET NO. ISSUE  
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JUN 25 2004  
COUNTY ENGINEER

PRELIMINARY - NOT FOR CONSTRUCTION





BERGHEIM QUADRANGLE  
(29098-G5)  
SCALE: 1" = 2000'

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**MALCOLM  
PIRNIE**

THIS DOCUMENT IS  
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PURPOSE OF REVIEW  
UNDER THE AUTHORITY OF  
E. DUWAIN WHITIS, JR.  
TEXAS P.E. NO. 58204  
DATE: JUNE 11, 2004

IT IS NOT TO BE USED  
FOR CONSTRUCTION OR  
ANY OTHER PURPOSE.

**HDR**  
HDR Engineering, Inc.

REVISIONS				
ISSUE	BY	DATE	REMARKS	

PROJECT MANAGER E. D. WHITIS
DESIGNED S. D. BEROSSET
DESIGNED E. D. WHITIS
CHECKED 
DRAWN M. E. WAUER



GUADALUPE-BLANCO RIVER AUTHORITY  
WESTERN CANYON REGIONAL WATER SUPPLY PROJECT  
CONTRACT NO. 5  
BOOSTER PUMP STATIONS AND  
CUSTOMER DELIVERY FACILITIES

ATTACHMENT B  
U.S.G.S. TOPOGRAPHIC MAP

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ANALYST: JMM

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# ATTACHMENT C PROJECT NARRATIVE

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The Western Canyon Water Supply Project (WCWSP) will divert water from Canyon Lake and send it through treatment and delivery facilities to provide treated water to customers in Comal, Kendall, and Bexar counties, Texas. The 18-foot diameter on-shore shaft intake structure and raw water pump station is designed to operate over a large range of lake surface level fluctuation. A 5-mile raw water transmission pipeline will deliver 10 million gallons per day (MGD) and ultimately 15 MGD to the treatment plant. When operational in 2005, the plant will utilize coagulation followed by membrane microfiltration to produce high quality filtered water. Treated water will be delivered to wholesale customers through a 40-mile pipeline and will be blended with existing ground and surface water supplies. The overall system map dated October, 2003 follows this narrative.

Engineering and design services for the project are divided into two contracts: Contract A is for design of the raw water intake and pump station, raw water pipeline, water treatment plant, tanks, and overall telemetry and supervisory control and data acquisition (SCADA) system. Contract B is for design of the treated water pump station at the plant, treated water pipeline, booster pump stations, customer delivery facilities, and permitting. The project is divided into 6 construction contracts, which are defined as follows:

Construction Contract No.	Construction Contract Name and Scope
1	<b>Raw Water Intake and Pump Station (HDR)</b> Includes all work on USACE property at Comal Park, including vertical shaft, lake taps, wet well liner, concrete work, installation of pumps, building, site work, electrical supply and switchgear, and the raw water pipeline to the USACE property line.
2	<b>Raw Water Transmission Pipeline (HDR)</b> Includes pipe material and installation for all of the raw water pipeline from USACE property line at Comal Park to the water treatment plant; includes customer connections (control valves, electrical supply, meters) at customers located adjacent to route of Contract A pipeline.
4	<b>Water Treatment Plant and Pump Station (MP)</b> Includes site piping, foundations, buildings, electrical supply, switchgear, installation of process equipment, transfer pumps, finished water pump station, administration building, remote chemical feed. Also includes raw water storage tank (Startz Hill) and finished water clearwell (WTP).
3	<b>Water Transmission Pipeline - Contract 3 (HDR)</b> Includes pipe material and installation for all treated water transmission pipe; includes customer connections (control valves, electrical supply, meters at customers located adjacent to route of pipeline). The project will be designed with one set of construction drawings but may be awarded as multiple construction contracts.
5	<b>Treated Water Booster Pump Stations (HDR)</b> Includes pump building and foundation, site piping, control valves, electrical supply and switchgear, pump procurement, and installation. Two booster pump stations are anticipated: Boerne/Fair Oaks/SAWS; and Bergheim/Cordillera ranch. Also includes the storage reservoir at the Boerne/Fair Oaks/SAWS pump station.
6	<b>SCADA and Telemetry (MP)</b>

	Includes procurement and installation of SCADA control system for all project elements, telemetry radios, antennas, towers, and interface to each project element.
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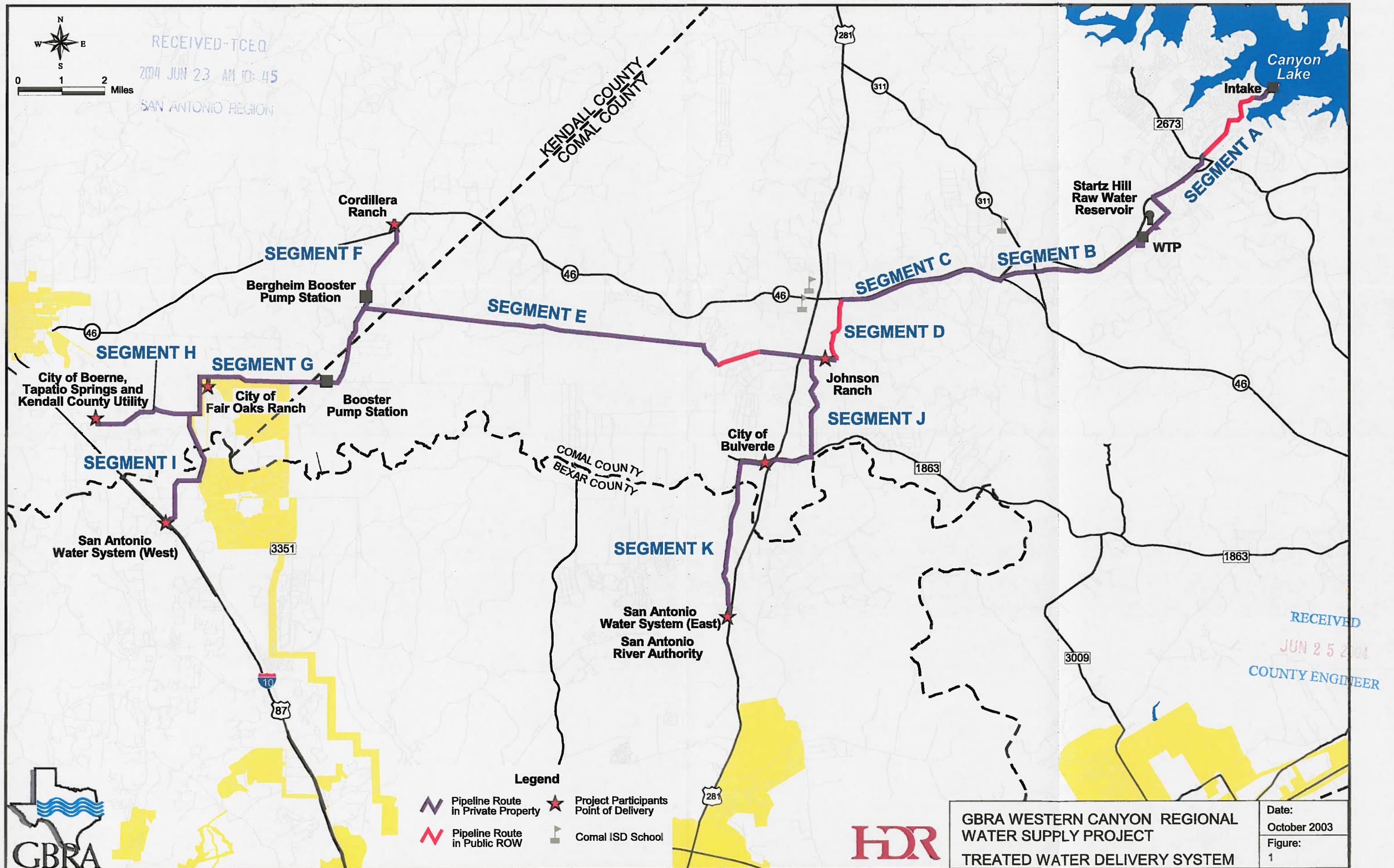
Malcolm Pirnie, Inc. and HDR, Inc. were retained in December 1999 as the prime consultants to perform professional engineering services for planning, design, bidding, and construction phase services for the Western Canyon Water Supply Project (Project). Malcolm Pirnie is prime consultant on Contract A and is a subconsultant to HDR on Contract B portion of the Project. HDR is prime consultant on Contract B and subconsultant to Malcolm Pirnie on Contract A portion of the Project. Construction contracts 4 and 6 are designed by Malcolm Pirnie under Contract A with GBRA. Construction contracts 1 and 2 are designed by HDR as a sub-consultant to Malcolm Pirnie under Contract A with GBRA. Construction contracts 3A, 3B, and 5 are designed by HDR under Contract B with GBRA.

Contributing Zone Plans (CZP) will be submitted separately for each of the following project areas:

- Intake Pump Station and Raw Water Chemical Feed Facility sites (Contract 1)
- Raw Water Control Tanks and Water Treatment Plant sites (Contract 4)
- Treated Water Booster Pump Station sites (Contract 5)

The pipelines in Contracts 2 and 3 are exempt from the requirement of a CZP, and Contract 6 does not involve construction of any structures or sitework.





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**ATTACHMENT D  
FACTORS AFFECTING SURFACE WATER QUALITY**

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The construction included in this Contributing Zone Plan is the Ammann Road Booster Pump Station which is located on a small tract of land purchased by the GBRA. The treated water transmission pipeline which conveys water from the Water Treatment Facility to this site is exempt from the requirement for a Contributing Zone Plan and will be installed in an easement and public right-of-way.

**Ammann Road Booster Pump Station**

The Ammann Road Booster Pump Station consists of a small building which will house three (3) 250 HP Vertical Turbine pumps (a space is provided for a future fourth pump). Ancillary equipment will include an electrical transformer, switchgear, and controls, and ventilation, and an air compressor to provide pneumatic power to operate hydraulic-actuated control valves on each pump and on the influent control valve. The facility will not have permanent staff, and no restroom will be provided. No wastewater will be generated by the facility. No regular activities at the site will generate any wastes, and hazardous materials will not be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment described above. Vehicles will not normally be parked at the site unless maintenance work is in progress. Runoff from impervious cover will be limited to the roof, gravel access drive, sidewalks and a gravel parking area.



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ATTACHMENT E  
PART 1 - STORMWATER RUNOFF CALCULATIONS

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Gross Site Area:  
SAN ANTONIO REGION

Ammann Road Booster Pump Station                      2.064 Ac

Impervious Cover:

**Ammann Road Booster Pump Station**

Building	3582 SF
Parking/Driveway	6273 SF
Sidewalks/Other	<u>2725</u> SF
Gross Imp. Cover	12580 SF
	0.289 Ac
	14.0%

## Runoff Calculations (Using Rational Method)

### **Ammann Road Booster Pump Station**

A = 119 Acres  
L = 500 Feet sheet flow  
3000 Feet shallow flow  
500 Feet concentrated flow  
4000 Feet

### Time of Concentration (Tc, per City of Austin Drainage Criteria Manual)

Tc = Tc(sheet) + Tc(shallow) + Tc(concentrated)

For sheet flow,

$$T_c = \frac{L^n}{42s^{0.5}} \quad (\text{Eq. 2-2}) \quad = \quad 6.9 \text{ Minutes}$$

where,

Tc = Time of Concentration in minutes

L = Length of the reach in ft. = 500 Feet

n = Manning's n (see table 2-4) = 0.1

s = Slope of the ground in ft/ft = 3%

For shallow flow,

$$T_c = \frac{L^n}{60s^{0.5}} \quad (\text{Eq. 2-2}) \quad = \quad 30.4 \text{ Minutes}$$

where,

Tc = Time of Concentration in minutes

L = Length of the reach in ft. = 3000 Feet

n = Manning's n (see table 2-4) = 0.1

s = Slope of the ground in ft/ft = 2.7%

For concentrated flow,

$$T_c = \frac{L}{60V} \quad = \quad 1.4 \text{ Minutes}$$

where,

V = Average channel velocity, ft/s = 6 FPS (estimated)

Tc = 38.7 minutes

### Runoff Coefficient:

	<u>Ac</u>	<u>2 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>25 Yr</u>	<u>50 Yr</u>	<u>100 Yr</u>
Undeveloped							
Cedar I	119.00	0.35	0.39	0.41	0.45	0.48	0.52
Impervi	0.00	0.73	0.77	0.81	0.86	0.9	0.95
Aggreg	-	0.35	0.39	0.41	0.45	0.48	0.52
Developed							
Cedar I	118.71	0.35	0.39	0.41	0.45	0.48	0.52
Impervi	0.289	0.73	0.77	0.81	0.86	0.9	0.95
Aggreg	-	0.35	0.39	0.41	0.45	0.48	0.52

Rainfall Intensity (Per TxDOT *Hydraulic Manual* for Comal County)

$$I = \frac{b}{(T_c + d)^e}$$

where:

I = design rainfall intensity (in./hr.)

$T_c$  = time of concentration (minutes, 10 minutes minimum)

e, b, d = coefficients for specific frequencies

	<u>2 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>25 Yr</u>	<u>50 Yr</u>	<u>100 Yr</u>
e (in)	0.796	0.781	0.775	0.766	0.753	0.758
b	56	69	78	87	91	105
d (mins)	8.4	8.6	8.6	8.6	8.6	8.4
Intensity (in/hr)	5.5	7.0	8.1	9.3	10.1	11.5

Runoff

$$Q = C \times I \times A$$

	<u>2 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>25 Yr</u>	<u>50 Yr</u>	<u>100 Yr</u>
Undeveloped	229.08	324.87	395.20	498.02	576.91	711.62
Developed	229.68	325.64	396.13	499.12	578.14	713.05

**ATTACHMENT E  
PART 2 - POLLUTANT LOAD CALCULATIONS**

**Gross Site Area:**

Ammann Road Booster Pump Station	2.064 Ac
----------------------------------	----------

**Impervious Cover:**

**Ammann Road Booster Pump Station**

Building	3582 SF
Parking/Driveway	6273 SF
Sidewalks/Other	<u>2725 SF</u>
Gross Imp. Cover	12580 SF
	0.289 Ac
	14.0%



## Pollutant Loads

$$L = P (A_u \times 0.54 + A_d \times R_v \times 38.4)$$

where:

L = annual pollutant load (pounds)

A<sub>u</sub> = Contributing undeveloped drainage area (acres)

A<sub>d</sub> = Contributing developed drainage area (acres)

P = Average annual precipitation (inches)

P = 33 in/yr for Comal County

R<sub>v</sub> = Runoff coefficient for the fraction of impervious cover in developed area

$$R_v = 0.546 (IC)^2 + 0.328 (IC) + 0.030$$

IC = the fraction of impervious cover for the developed area

### **Ammann Road Booster Pump Station**

#### Predevelopment

Total Drainage Area =	119 Acres
A <sub>u</sub> =	119 Acres
A <sub>d</sub> =	0.0 Acres
IC =	0%
R <sub>v</sub> =	0.03
L =	2121 Lbs/Year TSS

#### Postdevelopment

Total Drainage Area =	119 Acres
A <sub>u</sub> =	118.711 Acres
A <sub>d</sub> =	0.289 Acres
IC =	14%
R <sub>v</sub> =	0.087
L =	2147 Lbs/Year TSS

#### Required Reduction

$$\begin{aligned} \text{Reduction} &= 0.8 \times (\text{postdevelopment load} - \text{predevelopment load}) \\ &= 21 \text{ Lbs/Year TSS} \end{aligned}$$

$$\begin{aligned} \text{Removal Efficiency Req'd} &= \text{Req'd Reduction} / \text{Postdevelopment Load} \\ &= 1\% \end{aligned}$$

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**ATTACHMENT I**  
**20% or Less Impervious Cover Waiver**

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COUNTY ENGINEER

GBRA requests a waiver to the requirement for installation of BMPs at the two sites covered by this Contributing Zone Plan. The site will have less than 20% net impervious cover as indicated in the calculations included in Attachment E and reproduced below:

**Gross Site Area:**

Ammann Road Booster Pump Station	<u>2.064 Ac</u>
Total Site Area	2.064 Ac

**Impervious Cover:**

<b>Ammann Road Booster Pump Station</b>	
Building	3582 SF
Parking/Driveway	6273 SF
Sidewalks/Others	<u>2725 SF</u>
Gross Imp. Cover	12580 SF
	0.289 Ac
	14.0%

In addition, the Ammann Road site will have small amounts of impervious cover relative to the contributing drainage area; subsequently, the pollutant loads and required removals are very small (21 lbs/yr). Segregating upstream runoff from on-site runoff to allow effective treatment of on-site runoff will likely aggravate erosion by prematurely concentrating the upstream flows, which is not otherwise required.

While BMPs are not proposed, the design will incorporate features to reduce pollution. Driveways will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff. In addition, the sites will be grassed, so as to help reduce the quantity of runoff while acting as a sediment barrier to further minimize the quantity of pollutants leaving the site.

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**ATTACHMENT M**  
**Construction Plans**

The following drawings will be included in the final construction drawings and illustrate site-related construction elements relevant to the Contributing Zone Plan and Stormwater Pollution Prevention Plan.



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SAN ANTONIO REGION

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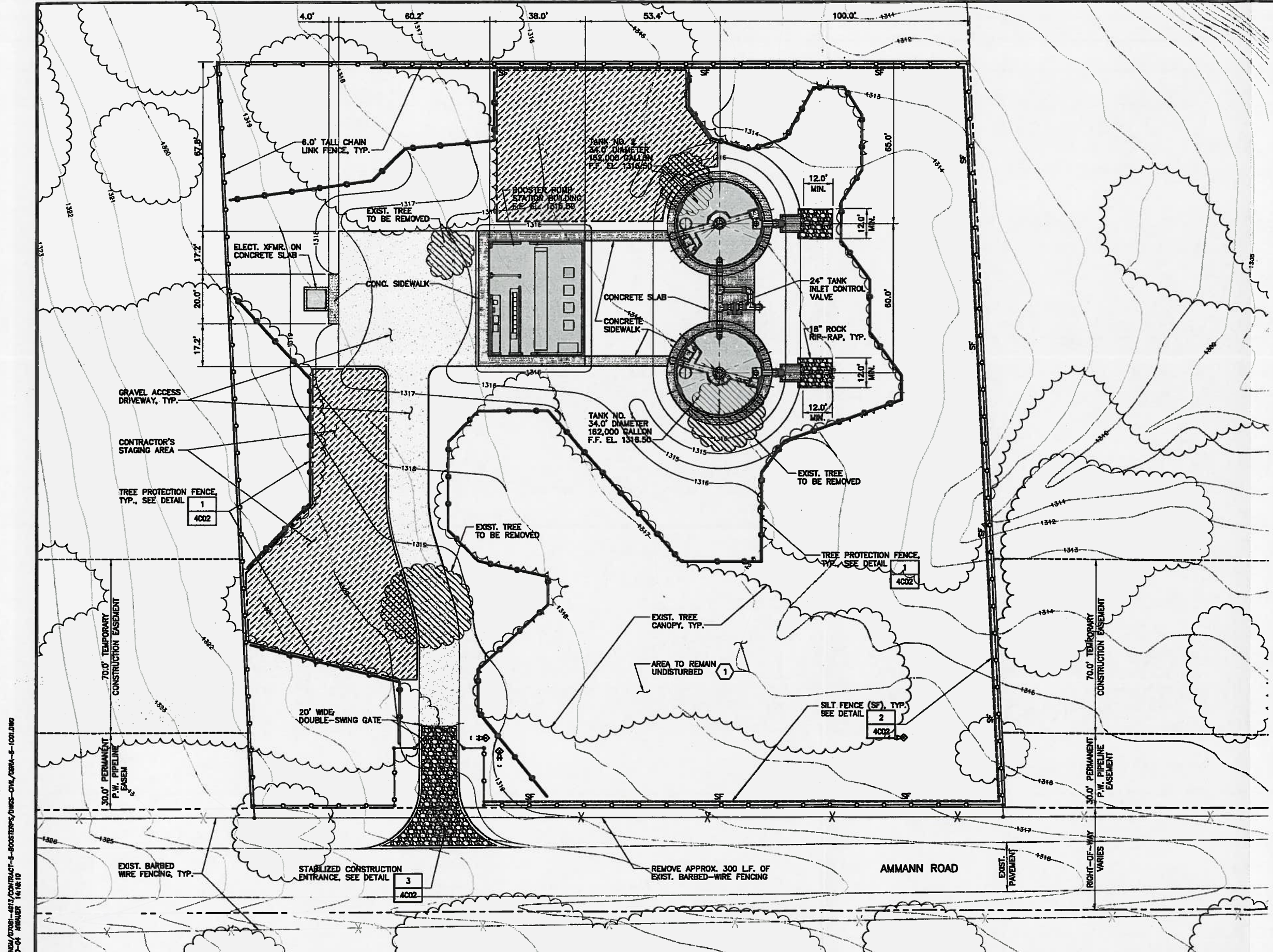
TRUE NORTH

GENERAL NOTES:

- A. REFERENCE SHEET 4C01 FOR TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES, TREE PROTECTION NOTES, AND PROTECTION OF EXISTING FACILITIES NOTES.
- B. THE CONTRACTOR SHALL REVEGETATE ALL AREAS GRADED AND/OR DISTURBED DURING CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS.

SPECIFIC NOTES:

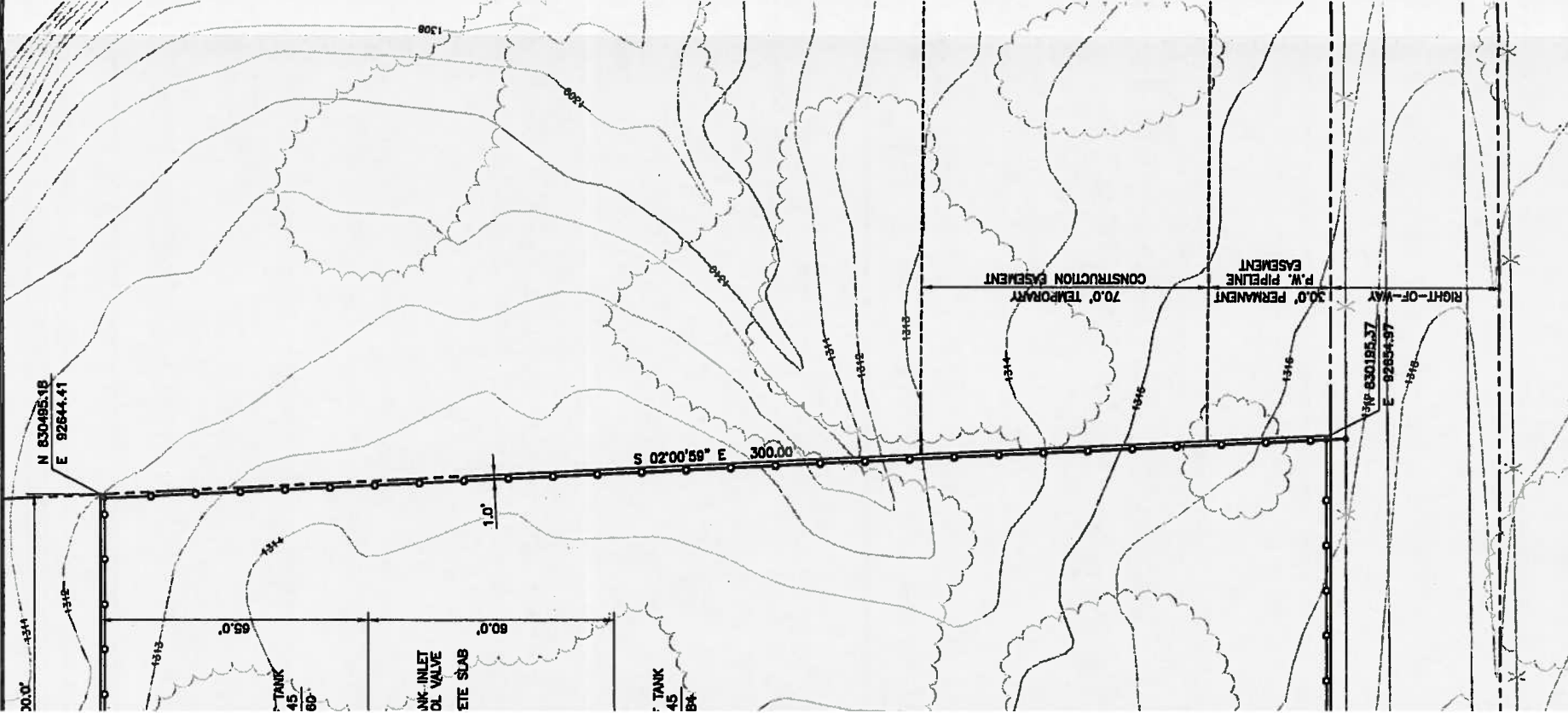
- 1. ALL TREES LOCATED WITHIN THE UNDISTURBED AREAS SHALL BE PROTECTED WITH TEMPORARY TREE PROTECTION FENCING. TREE LIMBS MAY BE TRIMMED OR REMOVED WITH THE OWNER'S CONCURRENCE. ANY WOUNDS TO REMAINING TREES MUST BE IMMEDIATELY SEALED WITH APPROVED PRUNING SEALANT.











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 EARN CANYON REGIONAL WATER SUPPLY PROJECT  
 CONTRACT NO. 5  
 BOOSTER PUMP STATIONS AND  
 CUSTOMER DELIVERY FACILITIES

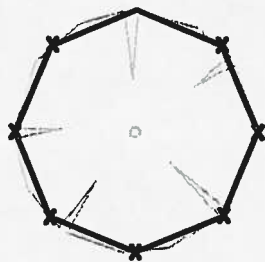
AMMANN ROAD BOOSTER PUMP STATION  
 MECHANICAL  
 SITE GRADING AND PAVING PLAN

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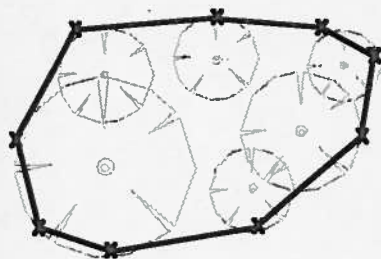
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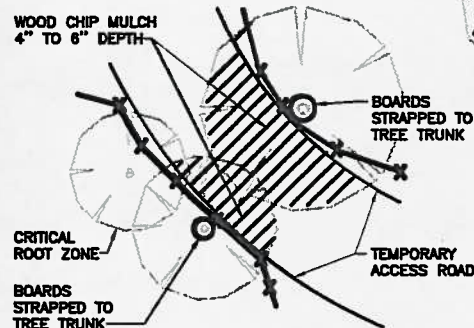
CRITICAL ROOT ZONE (C.R.Z.)  
RADIUS = 1 FT. PER INCH  
OF TRUNK DIAMETER



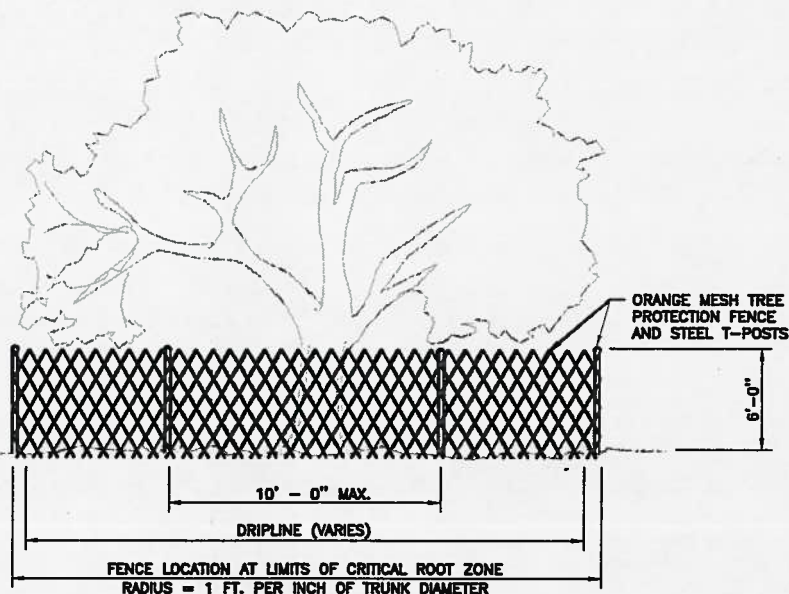
INDIVIDUAL TREE



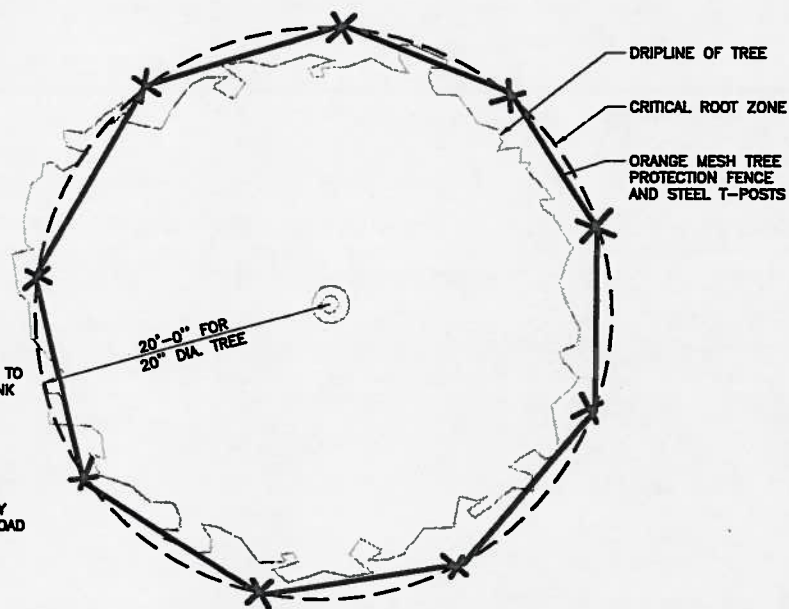
GROUP OF TREES



LINEAR CONSTRUCTION  
THROUGH TREES



TREE PROTECTION FENCE ELEVATION

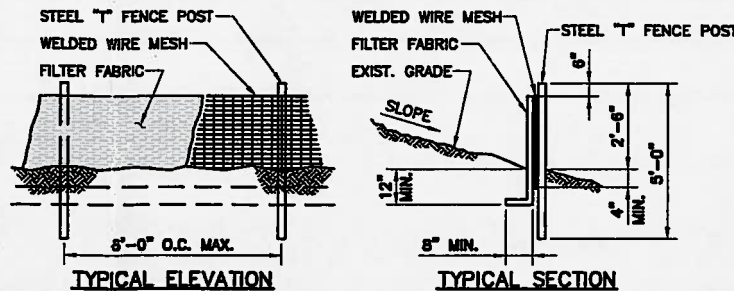


TREE PROTECTION FENCE PLAN

TREE PROTECTION FENCE DETAIL

NOT TO SCALE

1  
4C02



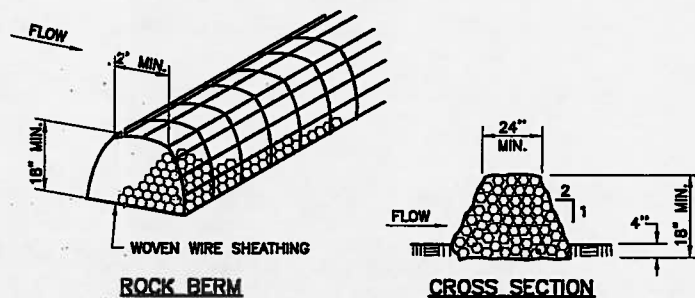
SILT FENCE NOTES:

1. CLEAR THE GROUND OF DEBRIS, ROCKS, AND PLANTS (INCLUDING GRASSES TALLER THAN 2") SO THAT A SMOOTH SURFACE CAN BE UTILIZED FOR ANCHORING THE SKIRT.
2. LAY OUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
3. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
4. ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE "T" FENCE POSTS WITH 1 1/2 GAUGE GALVANIZED "T" POST CLIPS. THE TOP OF THE WIRE SHOULD BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH SHALL BE OVERLAPPED 6" AND TIED AT LEAST SIX TIMES WITH HOG RINGS.
5. THE TOE OF THE SILT FENCE SHALL BE TRENCHED-IN SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE THE SILT FENCE CAN NOT BE TRENCHED-IN (E.G. PAVEMENT), WEIGHT THE FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER THE SILT FENCE.
6. SILT FENCE SHALL BE SECURELY FASTENED TO THE WOVEN WIRE MESH, WHICH IS IN TURN SECURELY ATTACHED TO THE STEEL FENCE POSTS.
7. SILT FENCE SPLICES SHOULD BE A MINIMUM OF 18" WIDE, ATTACHED IN AT LEAST SIX PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
8. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
9. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
10. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

SILT FENCE DETAIL

NOT TO SCALE

2  
4C02



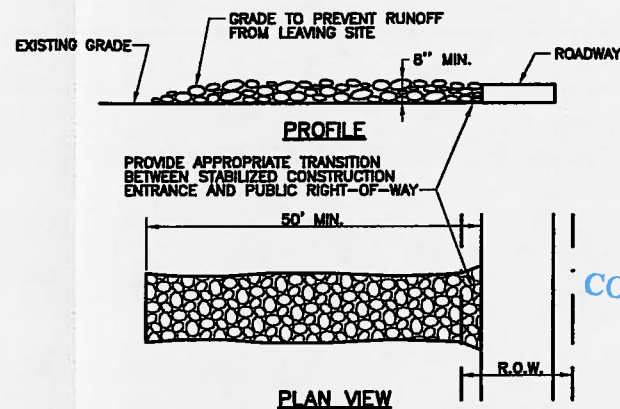
ROCK BERM NOTES:

1. USE ONLY OPEN GRADED ROCK 4-8 INCH DIAMETER FOR STREAM FLOW CONDITIONS USE OPEN GRADED ROCK 3-5 INCH DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6 INCHES.
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

ROCK BERM DETAIL

NOT TO SCALE

4  
4C02



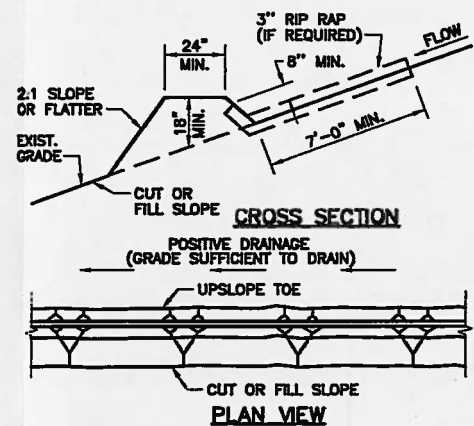
CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: 3" - 5" OPEN GRADED ROCK.
2. LENGTH: AS REQUIRED TO BE EFFECTIVE BUT NOT LESS THAN 50 FEET.
3. THICKNESS: NOT LESS THAN 8 INCHES.
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, AS CONDITIONS DEMAND, AND REPAIR AND CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENTS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

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3  
4C02



DIVERSION DIKE NOTES:

1. ALL DIKES SHALL BE MACHINE COMPACTED.
2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. a. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.  
b. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE, SUCH AS A ROCK BERM, BRUSH BERM, STONE OUTLET STRUCTURE, SEDIMENT TRAP, OR SEDIMENT BASIN, OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
4. UNLESS OTHERWISE SPECIFIED, EROSION STABILIZATION SHALL BE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER PLACED IN A 3-INCH THICK LAYER AND EMBEDDED INTO THE SOIL.
5. INSPECTION SHALL BE CONDUCTED WEEKLY OR AFTER EACH RAINFALL EVENT.

DIVERSION DIKE DETAIL

NOT TO SCALE

5  
4C02

MALCOLM  
PIRNIE

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FOR REVIEW ONLY  
IT IS NOT TO BE USED  
FOR CONSTRUCTION OR  
ANY OTHER PURPOSE

HDR  
HDR Engineering, Inc.

REVISIONS	DATE	REMARKS
A	04/27/2004	ISSUED FOR CLIENT REVIEW
B	06/11/2004	ISSUED FOR G.C. REVIEW

PROJECT MANAGER  
E. D. WHITIS  
DESIGNED  
S. D. BEROSSET  
CHECKED  
E. D. WHITIS  
DRAWN  
M. E. WAUER



GUADALUPE-BLANCO RIVER AUTHORITY  
WESTERN CANYON REGIONAL WATER SUPPLY PROJECT  
CONTRACT NO. 5  
BOOSTER PUMP STATIONS AND  
CUSTOMER DELIVERY FACILITIES

STANDARD NOTES AND DETAILS  
CIVIL  
TREE PROTECTION AND  
EROSION/SEDIMENTATION CONTROL DETAILS

DATE	JULY 2004
SCALE	NOT TO SCALE
FILE NAME	GBRA-5-4C02.DWG
SHEET NO.	4C02
ISSUE	B

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SAN ANTONIO REGIONAL

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
CONTRIBUTING ZONE PLAN  
GENERAL CONSTRUCTION NOTES**

1. WRITTEN CONSTRUCTION NOTIFICATION SHOULD BE PROVIDED TO THE APPROPRIATE T.C.E.Q. REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION SHOULD INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR WITH THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN AND THE T.C.E.Q. LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM MAY BE INSTALLED WITHIN 150 FEET IF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL.
4. PRIOR TO COMMENCING CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE SWPPP SECTION OF THE APPROVED EDWARDS AQUIFER CONTRIBUTING ZONE PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
5. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO SURFACE STREAMS OR SENSITIVE FEATURES BY THE NEXT RAIN).
6. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).
8. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE AND STORED ON-SITE MUST HAVE PROPER E&S CONTROLS INSTALLED.
9. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND CONSTRUCTION ACTIVITIES WILL NOT RESUME WITHIN 21 DAYS. WHEN THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE T.C.E.Q. UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
11. THE HOLDER OF ANY APPROVED CONTRIBUTING ZONE PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
  - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
  - B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
  - C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER AND HYDROLOGICALLY CONNECTED SURFACE WATER; OR
  - D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED IN A CONTRIBUTING ZONE PLAN AS UNDEVELOPED.

SAN ANTONIO REGIONAL OFFICE  
14250 JUDSON ROAD  
SAN ANTONIO, TEXAS 78233-4480  
PHONE (210) 490-3096  
FAX (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

**TREE PROTECTION NOTES**

1. ALL TREES 8-IN AND LARGER AND SCHEDULED TO REMAIN WITHIN EASEMENT AREAS, AND ALL TREES 8-IN AND LARGER WITHIN 8-FOOT OF EASEMENT AREAS SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. INSTALL FENCES PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING) AND MAINTAIN THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
3. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE) IN ORDER TO PREVENT THE FOLLOWING:
  - A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
  - B. WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
  - C. OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
4. WHERE CONSTRUCTION ACTIVITIES MUST TAKE PLACE WITHIN THE DRIP LINE, INSTALL FENCING AT THE LOCATION REQUIRED AND PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
5. TREES TO BE REMOVED SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
6. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
7. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).
8. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES).

**PROTECTION OF EXISTING FACILITIES NOTES**

1. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF, AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF, ALL EXISTING FACILITIES (UTILITIES, PIPING, EQUIPMENT, STRUCTURES, FENCING, BARRIERS, PAVEMENT, SIDEWALKS, SIGNAGE, ETC.) WHICH PERTAIN TO AND/OR AFFECT CONSTRUCTION OF THIS PROJECT.
2. VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ALL UTILITIES MAY NOT BE SHOWN! THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITY SERVICE PROVIDERS AT LEAST 48 HOURS PRIOR TO TRENCHING OR EXCAVATION, AND REQUEST FIELD LOCATION OF UTILITIES. ONE-CALL LOCATOR SERVICES MAY NOT COVER ALL UTILITIES IN THIS AREA!
3. ANY EXISTING FACILITIES THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
4. RESTORE ALL DRIVEWAYS, CULVERTS, HEADWALLS, LANDSCAPING, AND OTHER IMPROVEMENTS (REGARDLESS OF WHETHER THEY WERE CONSTRUCTED OR INSTALLED BY PUBLIC AGENCIES, UTILITIES, OR INDIVIDUALS) THAT ARE DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO OR BETTER THAN ORIGINAL CONDITIONS.
5. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED AND RESTORED TO ORIGINAL CONDITIONS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
6. THE OWNER HAS SECURED OR IS SECURING AN EDWARDS AQUIFER CONTRIBUTING ZONE PLAN AUTHORIZATION FROM THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (T.C.E.Q.), A FLOOD PLAIN DEVELOPMENT PERMIT FROM COMAL COUNTY, AND A SECTION 404 PERMIT AUTHORIZATION FOR WORK IN THE LAKE FROM THE U.S. ARMY CORPS OF ENGINEERS (U.S.A.C.E.). ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOT CONTACT U.S.A.C.E. WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER.

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JUN 25 2004

COUNTY ENGINEER

G:\WORK\07061-4811\CONTRACT-5-BOOSTERS\DWGS-CIVIL\GBRA-5-4C01.DWG  
06-17-04 MWAUER 14:46:10  
ALL DRAWING OR OTHERWISE  
REVISIONS MUST BE  
MADE IN ACCORDANCE WITH  
THE FOLLOWING:

**MALCOLM  
PIRNIE**

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF REVIEW  
UNDER THE AUTHORITY OF  
F. DUNN WHITE, JR.  
TEXAS P.E. NO. 48204  
DATE: JUNE 11, 2004

IT IS NOT TO BE USED  
FOR CONSTRUCTION OR  
ANY OTHER PURPOSE.

**HDR**  
HDR Engineering, Inc.

REVISIONS				
ISSUE	BY	DATE	REVISIONS	REMARKS
A	-	-	NOT PREVIOUSLY ISSUED	
B	E.A.W.	06/11/2004	ISSUED FOR G.C. REVIEW	

PROJECT MANAGER  
E. D. WHITIS  
DESIGNED  
S. D. BEROSSET  
DESIGNED  
E. D. WHITIS  
CHECKED  
DRAWN  
M. E. WAUER



**GUADALUPE-BLANCO RIVER AUTHORITY**  
WESTERN CANYON REGIONAL WATER SUPPLY PROJECT  
CONTRACT NO. 5  
BOOSTER PUMP STATIONS AND  
CUSTOMER DELIVERY FACILITIES

**SITWORK  
CIVIL  
TREE PROTECTION AND  
EROSION/SEDIMENTATION CONTROL NOTES**

DATE	JULY 2004
SCALE	NO SCALE
FILE NAME	GBRA-5-4C01.DWG
SHEET NO.	4C01
ISSUE	B

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SAN ANTONIO REGION

## ATTACHMENT P

### Measures for Minimizing Surface Stream Contamination

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The project incorporates a number of design features to minimize surface stream contamination. Most importantly, the amount of impervious cover has been minimized, and the type of impervious cover has been selected to reduce discharge of pollutants. The driveway will be surfaced with washed, crushed stone similar to the surfacing used at local electrical substations. This type of stone surfacing helps to prevent rapid runoff, promotes the capture of suspended solids, and helps to prevent concentrating runoff.

The relatively small amount of impervious cover at the site allows for the maintenance of existing drainage patterns. There are no plans to install channels or storm sewers to concentrate or divert flows. Stormwater will continue to discharge generally along existing flow paths.

Activities at the site are not ones that will generate significant amounts of pollutants. The facility will not have permanent staff, and no restrooms will be provided. No wastewater will be generated by the facility. No regular activities at the site will generate any wastes, and hazardous materials will not be handled or stored at the site with the possible exception of small quantities of cleaning agents and/or lubricants used with the equipment. Vehicles will not normally be parked at the site unless maintenance work is in progress.



# Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity under the TPDES Construction General Permit (TXR150000)

For help completing this application, read the TXR150000 NOI Instructions  
(TCEQ-20022-Instructions).

## TCEQ Office Use Only

TPDES Permit Number: TXR15-.. .. NO

GIN Number: .. ..

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COUNTY ENGINEER

**A. Construction Site Operator** ☐ New ☐ No Change Customer Reference Number: CN \_\_\_\_\_

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Country Mailing Information (if outside USA) Territory: \_\_\_\_\_ Country Code: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Extension: \_\_\_\_\_ Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Type of Operator: ☐ Individual ☐ Sole Proprietorship - D.B.A. ☐ Partnership ☐ Corporation ☐ Federal Government  
☐ State Government ☐ County Government ☐ City Government ☐ Other: \_\_\_\_\_

Independent Operator? ☐ Yes ☐ No Number of Employees: ☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 or higher

Federal Tax ID: \_\_\_\_\_ State Franchise Tax ID Number: \_\_\_\_\_ DUNS Number: \_\_\_\_\_

**B. Billing Address**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Country Mailing Information (if outside USA) Territory: \_\_\_\_\_ Country Code: \_\_\_\_\_ Postal Code: \_\_\_\_\_

**C. Project / Site Information** ☒ New ☐ No Change Regulated Entity Reference Number: RN 102676814

Name: Western Canyon Reg. Water Supply Syst. - Cont. 5-Ammann Rd Booster Pump Station

Mailing Address: TBD City: \_\_\_\_\_ State: TX Zip Code: \_\_\_\_\_

Physical Address: 1700 I.f. W. of Ammann Rd./FM 3351 int. City: \_\_\_\_\_ County: COMAL Zip Code: \_\_\_\_\_

Location Access Description: 1700 I.f. West of Ammann Rd/FM 3351 intersection

Latitude: 29 ° 46 ' 13 " N Longitude: 98 ° 36 ' 34 " W Degrees (°), Minutes ('), and Seconds (")  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_ Decimal Form

Standard Industrial Classification (SIC) code: 4941 Also, describe the construction activity at this site (do not repeat the SIC code): \_\_\_\_\_

Has a storm water pollution prevention plan been prepared as specified in the general permit (TXR150000)? ☒ Yes ☐ No

Estimated area of land disturbed (to the nearest acre): 1.0 Is the project / site located on Indian Country Lands? ☐ Yes ☒ No

Does this project / site discharge storm water into a municipal separate storm sewer system (MS4)? ☐ Yes ☒ No

If yes, provide the name of the MS4 operator: \_\_\_\_\_

Provide the name or segment number of the water body that receives storm water from this project / site: \_\_\_\_\_

**D. Contact** - If the TCEQ needs additional information regarding this application, who should be contacted?

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Extension: \_\_\_\_\_ Fax Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**E. Payment Information** - Check / Money Order Number: \_\_\_\_\_ Name on Check / Money Order: \_\_\_\_\_

**F. Certification**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

### Construction Site Operator:

Prefix: \_\_\_\_\_ First: \_\_\_\_\_ Middle: \_\_\_\_\_

Last: \_\_\_\_\_ Suffix: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

If you have questions on how to fill out this form or about the storm water program, please contact us at (512) 239-4671.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at (512) 239-3282.

The completed NOI must be mailed to the following address. Use the attached document to submit the \$100 application fee. Please note that the NOI and application fee are submitted separately to different addresses.

**Texas Commission on Environmental Quality**  
**Storm Water & General Permits Team; MC - 228**  
P.O. Box 13087  
Austin, Texas 78711-3087

**Texas Commission on Environmental Quality  
Payment Submittal Form**

The storm water application fee shall be sent under separate cover to the Texas Commission on Environmental Quality.

This form must be used to submit your Storm Water Application Fee. Please complete the following information, staple your check in the space provided at the bottom of this document, and mail it to:

**BY REGULAR U.S. MAIL**

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
P.O. Box 13088  
Austin, TX 78711-3088

**BY OVERNIGHT/EXPRESS MAIL**

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
12100 Park 35 Circle  
Austin, TX 78753

Fee Code: GPA

Storm Water General Permit: TXR150000

Check / Money Order No: \_\_\_\_\_ Amount of Check/Money Order: \_\_\_\_\_

Date of Check or Money Order: \_\_\_\_\_

Name on Check or Money Order: \_\_\_\_\_

Facility / Site Name: Western Canyon Reg. Water Supply Syst. - Cont. 5-Ammann Rd Booster Pump Station

Facility / Site Physical Address: 1700 I.f. W. of Ammann Rd./FM 3351 int.

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**Staple Check In This Space**

RECEIVED-TCEQ  
2004 JUN 23 AM 10:47  
SAN ANTONIO REGION

**Agent Authorization Form**  
For Required Signature  
Edwards Aquifer Protection Program  
Relating to 30 TAC Chapter 213  
Effective June 1, 1999

RECEIVED  
JUN 25 2004  
COUNTY ENGINEER

I Fred M. Blumberg,  
Print Name

Deputy General Manager  
Title - Owner/President/Other

of Guadalupe-Blanco River Authority  
Corporation/Partnership/Entity Name

have authorized Duwain Whitis, P.E.  
Print Name of Agent/Engineer

of HDR Engineering, Inc.  
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Natural Resource Conservation Commission (TNRCC) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TNRCC's approval letter. The TNRCC is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and the forms must accompany the completed application.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TNRCC cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.



4. For applicants who are not the property owner, but who have the right to control and possess and control the property, additional authorization is required from the owner.

Fred M. Blumberg  
Applicant's Signature

11-14-03  
Date

THE STATE OF Texas §

County of Guadalupe §

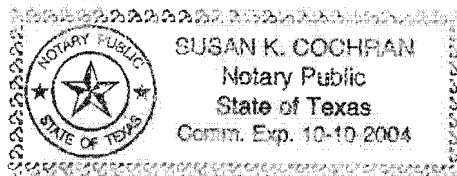
BEFORE ME, the undersigned authority, on this day personally appeared Fred M. Blumberg known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 14 day of Nov ~~Oct~~ November, 2003.

Susan K. Cochran  
NOTARY PUBLIC

Susan K. Cochran  
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 10-10-2004



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2004 JUN 23 AM 10: 47

Texas Natural Resource Conservation Commission  
Edwards Aquifer Protection Program  
**Contributing Zone Fee Application Form**

RECEIVED  
JUN 25 2004  
COUNTY ENGINEER

NAME OF PROPOSED REGULATED ENTITY: Western Canyon Regional Water Supply System  
REGULATED ENTITY LOCATION: \_\_\_\_\_  
NAME OF CUSTOMER: Guadalupe Blanco River Authority  
CONTACT PERSON: Duwain Whitis, Agent PHONE: 512-912-5112  
(Please Print)

Customer Reference Number (if issued): CN 601180565 (nine digits)  
Regulated Entity Reference Number (if issued): RN 102676814 (nine digits)

**AUSTIN REGIONAL OFFICE (3373)**

- Hays
- Travis
- Williamson

**SAN ANTONIO REGIONAL OFFICE (3362)**

- Bexar
- Comal
- Kinney
- Medina
- Uvalde

APPLICATION FEES MUST BE PAID BY CHECK, CERTIFIED CHECK, OR MONEY ORDER, PAYABLE TO THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION. YOUR CANCELED CHECK WILL SERVE AS YOUR RECEIPT. **THIS FORM MUST BE SUBMITTED WITH YOUR FEE PAYMENT. THIS PAYMENT IS BEING SUBMITTED TO (CHECK ONE):**

- **SAN ANTONIO REGIONAL OFFICE**
- **Mailed to TNRCC:**  
TNRCC - Cashier  
Revenues Section  
Mail Code 214  
P.O. Box 13088  
Austin, TX 78711-3088
- **AUSTIN REGIONAL OFFICE**
- **Overnight Delivery to TNRCC:**  
TNRCC - Cashier  
12100 Park 35 Circle  
Building A, 3rd Floor  
Austin, TX 78753  
512/239-0347

Check one:

- **Contributing Zone Plan - Fee Due \$250**
- **Modification of a Previously Approved Contributing Zone Plan - Fee Due \$250**
- **Extension of Time Request - Fee Due \$100**

  
Signature

6/21/04  
Date

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Kathleen Hartnett White, *Chairman*  
R. B. "Ralph" Marquez, *Commissioner*  
Larry R. Soward, *Commissioner*  
Margaret Hoffman, *Executive Director*



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MAY 25 2004  
COUNTY ENGINEER

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 19, 2004

Mr. Gary Asbury  
Guadalupe Blanco River Authority  
933 East Court Street  
Seguin, Texas 78155

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: GBRA Western Canyon Regional Water Supply System Contract 4 - Water Treatment Plant (WTP) & Raw Water Control Tanks (RWCT); WPT located on east side of FM 3159, approximately 5.7 miles south of FM 2673, RWCT located on east side of FM 3159, approximately 5.0 miles south of FM 2673; Comal County, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
Edwards Aquifer Protection Program File No. 2141.00, Regulated Entity No. RN104161435, Customer No. CN601180565

Dear Mr. Asbury:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Karen Pappas, P.E. of Malcolm Pirnie, Inc. on behalf of the Guadalupe Blanco River Authority on February 10, 2004. Additional information was received on May 13, 2004. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Contributing Zone Plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

### BACKGROUND

The overall project is for the construction of a pump station, a five mile long raw water transmission line, a treatment plant, and 40 miles of pipeline for potable water. Pursuant to 30 TAC §213.25(11)(A)(V), the installation of water lines is exempt from the Contributing Zone plan application requirements. However, temporary erosion and sedimentation controls are required to be installed and maintained for exempted activities on the contributing zone (30 TAC §213.25(11)©).

### PROJECT DESCRIPTION

The proposed commercial project will be located at two sites on 27.5 acres. The proposed impervious cover for the total development is approximately 3.3 acres (12% of the total area of the site) and will include:

1. A 27 acre raw water treatment plant (WTP), which includes a control building, membrane building, two-two million gallon treated water storage tanks, process tanks, pumps, concrete lined residual lagoons and concrete lined clean in place (CIP) lagoons, chemical storage, treatment and neutralization facilities, including a chlorine building (2, 1-ton gaseous chlorine tanks), and parking. The proposed impervious cover for the facility and access drive is 3.1 acres (11.48%). The facility will have permanent staff, and according to Permit 85051 issued by Comal County, and dated, January 5, 2004, an on-site sewage facility (OSSF) may be constructed at the site. Backwash water will be recycled and evaporated. Dried residuals will be removed from the site for appropriate disposal. Neutralized cleaning chemicals from the treatment process will be directed to the CIP lagoon for evaporation.

The facility will have the aboveground storage tanks (AST) for the process chemicals listed in the tables below. Table I lists the ASTs (1 & 6) that will have 150% controlled drainage. Table II lists the ASTs (2, 3, 4 & 5) that will be inside buildings and have 110% controlled drainage.

Table I							
AST	Gallons	Tank Material	Contents of Tank	Length (feet)	Width (feet)	Depth (feet)	Total
1	5,000	Fiberglass reinforced plastic (FRP)	Caustic (for pH adjustment)	44	26	3	1,130 ft <sup>3</sup> (8,450 gal)
6	20,000	FRP	Ferric Sulfate (Bulk)	44	26	3.5	4,244 ft <sup>3</sup> (31,749 gal)
Total	25,000	--	--	--	--	--	5374 ft <sup>3</sup> (40,199 gal)



The described ASTs (1 & 6) are to be placed within a chemical resistant coated concrete controlled drainage containment area with the dimensions listed in the table above, yielding a total containment of greater than 150% of the total storage capacity of the facility. Any spillage will be directed to a convenient point within the containment structure for collection and recovery.

For AST 1, piping to the chemical feed pumps will be within contained areas. Piping from the feed pumps exit the building underground, and are then routed to the treated water tanks.

For AST 6, piping to the day tank and feed pumps will be within the contained areas. Piping from the feed pumps exit the membrane building underground and remain underground until the feed point at the rapid mixer.

Table II							
AST	Gallons	Tank Material	Contents of Tank	Length (feet)	Width (feet)	Depth (feet)	Total
2	6,200	FRP	Empty holding tank for neutralization of membrane cleaning chemical	56	33	1.5	2,772 ft <sup>3</sup> (20,736 gal)
3	2,500	FRP	Caustic (NaOH for membrane cleaning)				
4	2,500	FRP	Acid (Citric or HCl for membrane cleaning)				
5	1,250	FRP	Ferric Sulfate (Fe <sub>3</sub> SO <sub>4</sub> ) (Day tank)	28	13	1	364 ft <sup>3</sup> (2,723 gal)
Total	12,450	--	--	--	--	--	3,136 ft <sup>3</sup> (23,459 gal)

For ASTs 2, 3 & 4, piping to equipment will remain inside the building and constructed within a trench in the building slab. PVC piping from AST #5 will exit the building underground and continue to a rapid mixer.

2. A 0.45 acre raw water control tank (RWCT) facility which includes 2-162,000 gallon, steel aboveground water tanks, related piping, and parking. The proposed impervious cover for the facility and access drive is 0.23 acres (53%).

### PERMANENT POLLUTION ABATEMENT MEASURES

The 27 acre raw water treatment plant (WTP) will treat storm water runoff from five drainage areas with vegetated filters. In lieu of storm water treatment for the 0.45 acre raw water control tank site, overtreatment will be provided by vegetated filters 2 and 3 on the 27 acre site. This information is summarized in Table 1 below.

The vegetated filter strips are designed in accordance with the 1999 edition of the TNRCC's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices." The filter strip will:

1. be contiguous with developed area,
2. be at the same elevation as the developed area,
3. have a level spreading device, and
4. be sized to filter storm water run-off from 3.50 acres of impervious cover.

Table 1					
	Area	Impervious Cover (Acres)	TSS load to be treated	Vegetated Filter (Acres)	TSS Treated
27 acre raw water treatment plant	1	0.46	348.0	0.20	376.7
	2	2.14	755.0	1.18	834.8
	3	2.36	831.5	1.14	919.4
	4	2.33	820.1	0.79	906.8
	5a	0.28	99.9	0.13	110.4
	5b	0.12	42.2	0.06	46.7
0.45 acre raw water control tank site	1	0.45	159.0	0.00	0.00
Total	-----	8.14	3,055.8	3.50	3,194.9

### SPECIAL CONDITIONS

- I. Please note that Standard Condition #10 below applies to all permanent best management practices, including vegetated filters.
- II. The vegetated filter is designed in accordance with the 1999 edition of the TNRCC's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices." The vegetated filter will be constructed as described above.

- III. All permanent storm water treatment measures must be operational prior to commencement of any commercial activity.
- IV. Intentional discharges of sediment laden storm water during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

#### STANDARD CONDITIONS

- 1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

#### Prior to Commencement of Construction:

- 2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.
- 3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
- 4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
- 5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor storm water discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to storm water shall be prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily).
8. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
9. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.



Mr. Gary Asbury

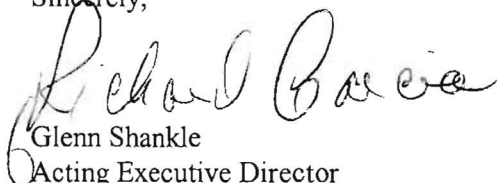
Page 7

May 19, 2004

13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
14. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,



Glenn Shankle

Acting Executive Director

Texas Commission on Environmental Quality

GS/jkm

Enclosure(s): Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

cc: Ms. Karen Pappas, P.E., Malcolm Pirnie, Inc.  
Mr. Tom Hornseth, Comal County  
Mr. Greg Ellis, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC 212

**Change in Responsibility for Maintenance  
on Permanent Best Management Practices and Measures**

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: \_\_\_\_\_

Regulated Entity Name: \_\_\_\_\_

Site Address: \_\_\_\_\_

City, Texas, Zip: \_\_\_\_\_

County: \_\_\_\_\_

Approval Letter Date: \_\_\_\_\_

BMPs for the project: \_\_\_\_\_

New Responsible Party: \_\_\_\_\_

Name of contact: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ FAX: \_\_\_\_\_

\_\_\_\_\_  
Signature of New Responsible Party

\_\_\_\_\_  
Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TNRCC for the site, until another entity assumes such obligations in writing or ownership is transferred.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.