



August 2, 2010

Texas Commission on Environmental Quality  
Region 13 Office  
14250 Judson Road  
San Antonio, TX 78233-4480

Project No 0022-37  
2010 AUG -4 PM 12: 47  
RECEIVED TCEQ  
SAN ANTONIO  
REGION

Attn.: Ms. Charly Fritz

Subject: Water Pollution Abatement Plan WPAP- Response to questions  
H.L. Zumwalt Construction, Inc. - (CN602748824) (RN105835375)  
FM 1283 Ranch Quarry, Medina County (EAPP ID # 2897.01)

Dear Ms. Fritz,

H.L. Zumwalt Construction, Inc. has reviewed the SAWS July 9, 2010 letter and after reviewing the construction company's options have decided to address SAWS's concerns. Please incorporate the following changes into the WPAP. A revised project description is also included.

H.L. Zumwalt Construction, Inc. has decided not to relocate the generator into the quarry pit. The 300 gallon mounted tank and generator will be located outside the quarry pit at all times. (The mounted 300 gallon tank is not used for refueling vehicles, only for operating the generator.) As quarry activities continue the 300 gallon tank and generator maybe relocated onsite but will not be relocated inside the quarry pit. The tank and generator will be located inside the proposed base fueling pad. The base fueling pad will also be located outside of the quarry pit at all times.

Vehicle fueling will occur on-site inside the base fueling pad. The base fueling pad will be approximately 100 by 100 foot flex base surrounded by a one foot high base berm. Any base material that becomes contaminated with hydrocarbons will be removed from the site and disposed of properly. When quarrying requires the fueling pad to be relocated, a similar base pad and berm will be constructed at a location to be determined at that time outside of the pit. Any spills and/or leaks that occur will be cleaned up in a timely manner and will be disposed of properly.

The initial quarry area is not heavily vegetated. As the quarry moves north and vegetation is removed the vegetation will be used as a brush berm and/or removed from the site. It is possible that some brush may be burned according to state and local laws. H.L. Zumwalt Construction, Inc. understands that new regulations have been enacted and will adhere to state and local laws. Brush will not be stored in the active quarry pit.

As stated in the WPAP application, major vehicle and equipment maintenance will occur off-site. If major maintenance is required then the vehicle/equipment will be hauled offsite and sent to H.L. Zumwalt Construction, Inc.'s shop in Helotes, Texas.

Minor vehicle maintenance includes but is not limited to work such as tire and battery replacements and simple mechanical repairs. Minor vehicle maintenance will occur on the proposed base pad.

Minor equipment maintenance includes but is not limited to work such as the changing of conveyor belts, rollers, crusher and screen components, water sprays, and general rock crushing plant parts. Minor welding will occur at the site in order to repair plant parts. Old unused parts will be hauled offsite and sent to H.L. Zumwalt Construction, Inc.'s shop in Helotes, Texas.

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Attached please find Westward Environmental, Inc.'s (WEI) response to TCEQ Region 13 faxes dated July 27, 2010 and dated July 30, 2010 regarding the H.L. Zumwalt Construction, Inc., FM 1283 Ranch Quarry WPAP application dated June 8, 2010. Our response to the TCEQ is as follows:

**Item #1**

Please see the attached revised project description. – *Appendix A*

**Item #2**

Please see the attached revised WPAP Site Plan with the requested 7 acre and 30 acre upgradient drainage areas highlighted. – *Appendix B*

**Item #3**

As stated on page 40, paragraph 2 (Sequence of Major Activities) of the WPAP application:

*"Clearing will be initiated in the initial 7 acre plant area and equipment will construct an earthen berm (WEI Alternative Earthen Berm) approximately 4-6' high that will surround the 7 acres as shown on the attached WPAP Site Plan. The 2:1 side slopes are designed for typical soil strength values that are encountered for topsoil/overburden material over the Recharge Zone. Compaction of the soil in 12" (max) lifts using the typical earthmoving equipment found at quarries over the Recharge Zone will provide more than adequate relative compaction for the berms to mitigate erosion and infiltration. In addition, establishment of vegetation would be prevented if the berms were constructed of highly compacted soil. No compaction standards for the proposed berms is described in the Construction Notes on the WPAP Site Plan because it is not considered to be necessary to perform density testing of the earthen berms (such as with 95% RC). The majority of earthen berms used throughout the life of quarries will be temporary berms and the earthen berm construction methods currently used by quarry operators over the Recharge Zone produce berms that perform well both in terms of erosion prevention and gross stability. The undersigned's observations at quarries over the Recharge Zone are that there are very few berm failures or erosion problems, and these are easily prevented with proper maintenance and corrected with equipment and materials readily available onsite. After clearing is completed, excavation of the quarry pit will begin. A portable rock crushing plant will be set up and crushing and screening operations started in order to make product."*

The proposed construction method of the final earthen berm is acceptable for the following reasons: the berms do not support any structural loads which would cause the soil in the berm to deflect or settle (such as a foundation or structural support); the berms are intended to redirect the flow of water or temporarily retain water, the subject berms that redirect water have small upgradient areas which means they redirect small amounts of water, and the berms that temporarily retain water will do so for small upgradient areas due to the presence of the quarry pit which will retain the majority of the water; the berms will be (and the existing berms are currently being) inspected weekly or after each rainfall greater than 1/2 inch, therefore if any problem develops it will be quickly identified; and compaction of soil, by definition, means that air voids are removed from the soil thus making it difficult for vegetation to take root and thrive, which will adversely impact the control of erosion on the surface and ultimately the stability of the berm. As stated in the WPAP application, the weekly

inspections implemented at the site will ensure that the berms are maintained in accordance with the WPAP. Any erosion of berms should be backfilled and compacted as soon as possible. If maintenance of the berms is needed or if additional BMPs are needed in conjunction with the earthen berms, the engineer will be contacted and additional BMPs such as rock berms, check dams or silt fencing may be used in conjunction with the earthen berms. In addition, to ensure proper construction, the engineer or his representative will perform site inspections as necessary while the final earthen berm is under construction.

**Item #4**

H.L. Zumwalt Construction Inc. currently inspects the site's existing BMPs on a weekly basis. This is due to logistical issues in trying to get to the site within 24 hours after a rainfall event which could occur on a weekend or non-working hours. The wording "...every 14 calendar days and within 24 hours of the conclusion of each rainfall greater than or equal to 0.5 inches" is taken from the active TPDES General Permit No. TXR150000. H.L. Zumwalt Construction, Inc. will continue to inspect the rock berms and earthen berms on a weekly basis.

**Item #5**

Please see the attached schematic of the proposed fueling pad. The fueling pad and generator/tank will always be located outside of the quarry pit. – *Appendix C*

**Item #6**

It is an industry standard to reuse/recycle water whenever practical. H.L. Zumwalt Construction, Inc. will reuse stormwater from the quarry pit for dust suppression on the 30 acre site. Although the WPAP and the industrial stormwater plan allow for mine dewatering after meeting the required TSS limits, H.L. Zumwalt Construction, Inc. does not expect to mine dewater. But, if mine dewatering becomes necessary the following practice will be used which was stated on page 45, paragraph 3 and 4 (Inspection and Maintenance for BMPs) of the WPAP application.

*"Any quarry pit dewatering required at the site would be physically accomplished using a pump to remove the water from the pit. This would only occur after solids have settled out, the water is tested and it is found to be in compliance with the numeric effluent limitations of TPDES General Permit No. TXR050000 Section J, (5)(ii) of 45 mg/L for a daily maximum and 25 mg/L for a daily average. The water would be discharged to a natural drainage area onto a rip rap pad such that soil erosion would be mitigated. Appropriate rock berm(s) would be constructed downgradient of the rip rap pad if needed to further control velocity and prevent erosion.*

*The background storm water runoff from undisturbed vegetated areas has a Total Suspended Solids (TSS) concentration of 80mg/L (per TCEQ TGM 3-29). The quarry pit captures this stormwater with 80mg/L and lets the sediment (TSS) settle. After sampling is done and the results meet the 45 mg/L for a daily maximum and 25 mg/L for a daily average, a pump is used to direct the water out of the pit. The water released after testing is therefore cleaner than if there were no pit. In addition, the water is released well after the stormwater in the streams have diminished which reduces stream flow volume and velocity during rain events thus reducing downstream erosion."*


If mine dewatering becomes necessary due to a sufficient amount of water in the pit from rainfall then the water would be tested in order to meet the limits described above. Once the limits are obtained per the TXR050000, then water may be discharged. The sample value is recoded on the DMRs and submitted to the TCEQ on an annual basis.

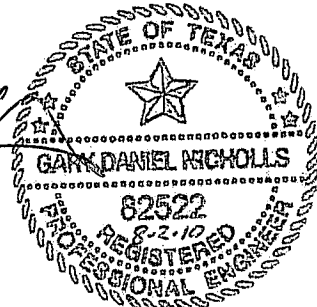
**Item #7**

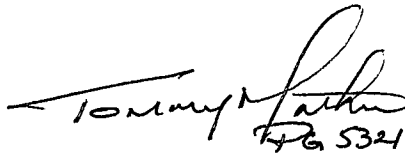
H.L. Zumwalt Construction, Inc. understands the requirement under 30 TAC §213.4(h)(3).

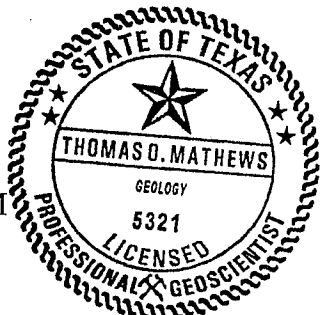
If you have any questions regarding this response, please call our office at (830) 249-8284. **Please copy our office on all correspondence.**

Respectfully submitted,  
WESTWARD ENVIRONMENTAL, INC.

  
Gary D. Nicholls, P.E.  
Vice President



  
Tommy Mathews, P.G., REM  
President



Distribution: Addressee (original +5)  
Mr. Henry Zumwalt – H.L. Zumwalt Construction, Inc. (2 copies)  
WEI 10022-37 file

Attachments: Revised Project Description – *Appendix A*  
Revised WPAP Site Plan – *Appendix B*  
Fueling Pad Schematic – *Appendix C*  
WEI Response to SAWS – *Appendix D*  
TCEQ fax dated July 27, 2010 and July 30, 2010 – *Appendix E*

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# APPENDIX A

**H.L. Zumwalt Construction, Inc.  
FM 1283 Ranch Quarry**

**Revised General Information Form Attachment C**

**Project Description**

H.L. Zumwalt Construction, Inc. proposes to operate a limestone quarry on the subject tract of 113 acres in Medina County. Of the 113 acre property, approximately 30 acres are proposed to be quarried and are designated as the "Project Area". The anticipated quarry life is approximately 25+ years; however, it depends on numerous external conditions such as rock quality and market conditions.

The proposed 113 acre property and the adjacent 446 acre property are owned by Henry L. Zumwalt with ongoing ranching and agriculture activities. The proposed 30 acre "Project Area" will be utilized to quarry, crush rock and haul the crushed rock offsite to an active construction project. In order to enter the 113 acres, an existing paved ranch road on the adjacent 446 acre ranch will be utilized. Most ranch roads throughout the 113 acre property are paved and are shown on the WPAP Site Plan. The existing ranch roads will cross the proposed earthen berm in several locations. A "speed bump" type ramp will be built on the road adjacent to the earthen berm to mitigate upgradient and downgradient stormwater runoff. These "speed bumps" will be high enough to direct flows around the disturbed areas or retain the flows onsite. No new roads will be built outside of the quarry pit for quarry activities.

Initial operations at the FM 1283 Ranch Quarry will include a 7-acre area which will be cleared and used to start the quarry excavation and accommodate the proposed portable rock crusher, screen and conveyors that will process the limestone. Temporary BMPs consisting of earthen berms and rock berms will be utilized to control and treat stormwater runoff in the initial stages of construction. As the initial plant area is cleared, equipment will remove topsoil and overburden and construct an earthen berm that will surround the initial plant area. The berm on the downgradient side will be approximately 4-6' in height and will store onsite flows. The earthen berm on the upgradient and east side of the disturbed area will direct upgradient flows around initial plant area. As the size of the quarry expands, the earthen berms will expand throughout the life of the project to the "Final Earthen Berm", as shown on the WPAP Site Plan. The quarry pit will be large enough to store stormwater runoff from the disturbed areas of the quarry site. Initially the rock crushing plant, stockpiles and equipment will be located outside of the initial quarry pit; after the pit is large enough the rock crushing plant, stockpiles and equipment (except for the generator and 300 gallon fuel tank) will then be relocated inside of the quarry pit. Blasting material will not be stored onsite. A subcontractor will be hired to perform the blasting at the FM 1283 Ranch Quarry.

There is minimal vegetation in the initial 7-acre quarry area consisting mostly of grasses. This vegetation will be burned onsite in accordance with 30 TAC 111, subchapter B. The ash shall be properly disposed of in accordance with 30 TAC 330 or 30 TAC 335, as applicable. (The burning of the brush onsite will only take place if there is not an active burn ban.) As the quarry moves north and vegetation consisting of brush and trees is



**H.L. Zumwalt Construction, Inc.  
FM 1283 Ranch Quarry**

**Revised General Information Form Attachment C**

**Project Description (continued)**

removed, it will be used as a brush berm and/or removed from the site. It is possible that some brush may be burned according to state and local laws. H.L. Zumwalt Construction, Inc. understands that new regulations have been enacted and will adhere to state and local laws. Brush will not be stored in the active quarry pit.

The proposed rock crushing process will be of a dry nature, no aggregate washing or wash ponds are proposed at this time. However, water sprays will be utilized to control dust as required under the pending air permit. Existing paved ranch roads (as shown on the WPAP Site Plan) will be utilized for quarry activities. As the quarry expands to the north the roads will be relocated into the quarry pit, which will retain runoff from the road. Trash generated onsite will be disposed of in a dumpster and handled by a licensed waste service. One portable toilet may be used on site and serviced by a licensed waste service on a weekly basis. A mobile fueling truck will be utilized onsite for the fueling of equipment on the proposed base fueling pad. The mobile fuel truck will be used offsite (off property) at construction sites throughout the state and at the subject site to refuel equipment and vehicles. The mobile fuel truck will also be utilized on the 446 acre ranch for the refueling of Mr. Zumwalt's ranching equipment. The mobile fueling truck will not be stored on the 30 acre project area or the 113 acre ranch. When the mobile fuel truck is not in use it will be stored offsite (off the 113 and 446 acre properties). Temporary portable scales and a scale house may or may not be utilized at the site. At the end of quarry activities the scales and scale house will be removed from the site.

Vehicles and equipment that can be readily driven out of the pit will be stored, refueled, and minor repairs and maintenance shall occur on compacted base fueling pad outside the quarry pit. The fueling pad will be approximately 10,000 square feet surrounded by a one foot high base berm. Minor vehicle maintenance includes but is not limited to work such as tire and battery replacements and simple mechanical repairs. Minor equipment maintenance includes but is not limited to work such as the changing of conveyor belts, rollers, crusher and screen components, water sprays, and general rock crushing plant parts. Minor welding will occur at the site in order to repair plant parts. Unused parts will be sent to and major repairs of vehicles will occur at the construction company's shop in Helotes, Texas. (See the attached WPAP Site Plan for the initial proposed base fueling pad location.)

A construction entry/exit will be built adjacent to the "speed bump" as the trucks exit the 30 acre project area. The construction entry/exit will be maintained in a condition which will prevent tracking of soil out of the project area. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment and replacement of stone with clean stone. Sediment spilled, dropped, or tracked onto the paved road should be removed in a timely manner. See the attached WPAP Site Plan for detail.



**H.L. Zumwalt Construction, Inc.  
FM 1283 Ranch Quarry**

**Revised General Information Form Attachment C**

**Project Description (continued)**

The rock crusher, conveyors and screens will be powered by a generator located next to the rock crushing plant. A 300 gallon diesel tank is mounted on the mobile generator trailer. The tank will be located more than 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive features. The generator is necessary in order to power the portable rock crusher because three phase line power is not readily available at the site. It is an estimate that the cost for line power to be brought to the crusher is approximately 300,000 to 400,000 dollars, not including engineering and attorney fees for right-of-way access and other issues. The use of generators which run heavy equipment is an industry standard and a common practice over the Edwards Aquifer Recharge Zone. It is neither practical nor required to locate the generator outside the quarry pit. However, although it will cause logistical problems, HLZ will locate the generator and associated 300 gallon fuel tank in the base fueling pad outside of the quarry pit at all times. When it becomes necessary to relocate the generator and fuel tank, they will be placed on a similar base fueling pad outside of the pit.

The TCEQ Air Program regulates the proposed Air Quality Standard Permit for Permanent Rock Crushers. The air permit requires water sprays at the inlet and outlet of all crushers, at all shaker screens, and at all material transfer points and used as necessary to maintain compliance with TCEQ rules and regulations. H.L. Zumwalt Construction, Inc. will utilize a water truck onsite for dust suppression on roads and stockpiles. 40 CFR 60, NSPS subparts A & OOO apply to this facility.

Quarry operators will undergo annual feature recognition training at the FM 1283 Ranch Quarry and have a Professional Geoscientist inspect the quarry/quarry floor at least annually for sensitive features during mining operations. Any possibly sensitive geologic feature discovered during the quarry process will be evaluated by a Professional Geoscientist and if determined to be sensitive, will be reported to TCEQ. An appropriate method for addressing the feature will be formulated by a Professional Geoscientist or a Professional Engineer and upon approval by TCEQ, the method to protect the feature will be implemented.

Upon termination of quarrying activities, stormwater that is located in the quarry pit will not discharge to the surface; it will be retained in the pit. The pit is proposed to be excavated along a topographic ridge and will be surrounded by an earthen berm and will therefore have very little upgradient run on area. The vast majority of stormwater to enter the pit will be from rainfall directly into the pit, thus limiting the amount of stormwater present in the pit. It is expected that the majority of stormwater retained in the pit after the termination of quarrying activities will evaporate.



**H.L. Zumwalt Construction, Inc.  
FM 1283 Ranch Quarry**

**Revised General Information Form Attachment C**

**Project Description (continued)**

The expectation that stormwater in the quarry pit will evaporate is based on the observed site geology, our experience with numerous quarries throughout this region and published climatological data. Few karst features were found at the site and no sensitive or significant features were identified. No faults were identified in the quarry area, either in the field or on the geologic maps for the area. The quarry floor will consist of in place bedrock or densely compacted limestone material both of which are slow to absorb water. Furthermore, the annual average rainfall in the area is 30 inches (per TCEQ TGM), while the annual pan evaporation rate is approximately 80 inches (EPA) and the mean annual free water (lake) evaporative rate is 62 inches (USDA – NRCS – Soil Survey of Medina County). Therefore, based on these facts we expect infiltration into the quarry floor to be minimal compared to evaporation.

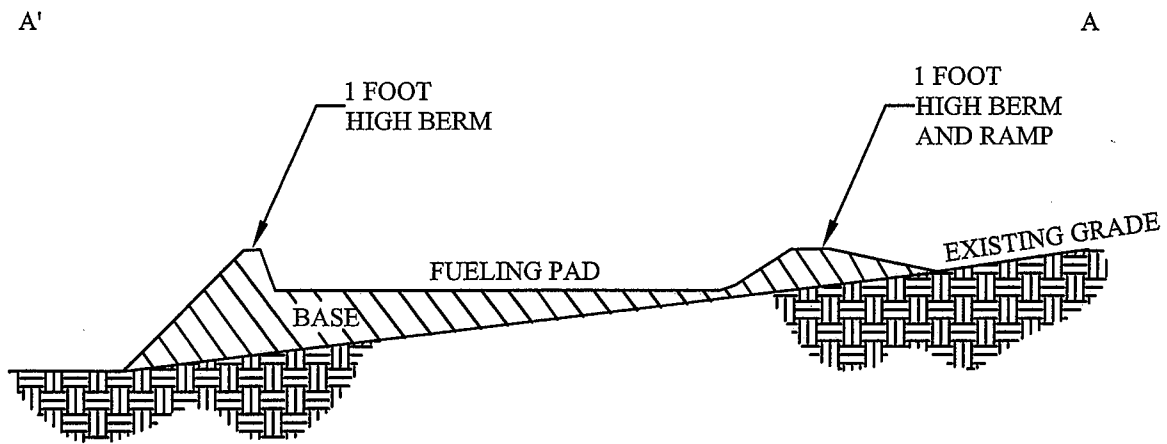
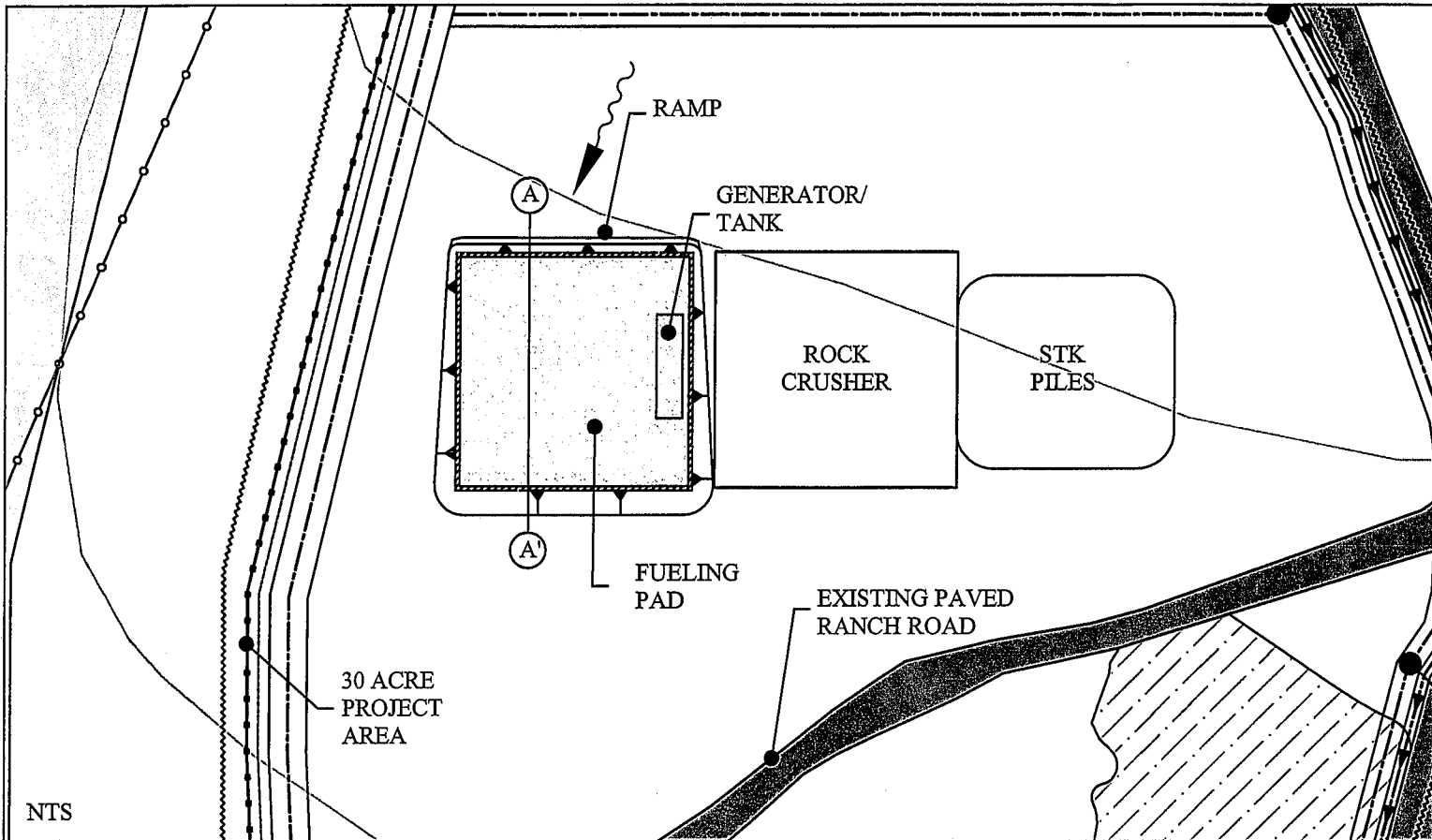
In addition, the Professional Geoscientist's annual inspection will provide an additional level of protection and oversight of the regular inspections by the quarry operator. This additional process will help mitigate the potential of stormwater infiltrating through features discovered while mining in the quarry pit.

Due to the absence of geologic features onsite, the proposed quarry depth of 25 feet, the depth to the top of the water table (approx. 385 feet), the annual quarry inspections, training and treatment of any features found in the quarry, and the other proposed BMPs at the site, it is our opinion that pollution of groundwater at the HLZ site will be prevented to a greater extent than it is prevented at construction sites where exposed limestone is subject to stormwater ponding and at other quarries where these conditions, inspections and other BMPs do not exist.



# **APPENDIX B**

# **APPENDIX C**




**VEHICLE PARKING &  
BASE FUELING PAD  
CALCULATIONS**

LENGTH OF PAD = 100 FEET  
 WIDTH OF PAD = 100 FEET  
 HEIGHT OF BERM = 1 FOOT

CALCULATED CAPTURE VOLUME = L x W x H

100 FEET x 100 FEET x 1 FOOT = 10,000 FEET<sup>3</sup>  
 10,000 FEET<sup>3</sup> = 74,813 GALLONS

 **Westward Environmental, Inc.**  
 P.O. Box 2205  
 Boerne, Texas 78006  
 (830) 249-8284 Fax: (830) 249-0221

REV.	DESCRIPTION	BY	DATE
COMPANY NAME: H.L. Zumwalt Construction, Inc.		DRAWN BY: MB	CHECKED BY: GDN
JOB NAME: WPAP FM 1283 Ranch Quarry		SCALE: NTS	
LOCATION: Mico, Medina County, Texas		DATE: 07/27/2010	
IMAGE: N/A		JOB NUMBER	
DESCRIPTION: Fueling Pad - Appendix C		10022-37B	

# **APPENDIX D**



*Westward Environmental, Inc.*

*P.O. Box 2205  
BOERNE, TEXAS  
78006*

August 2, 2010

San Antonio Water Systems (SAWS)  
2800 U.S. Hwy. 281 North  
P.O. Box 2449  
San Antonio, TX 78298-2449

Project No. 10022-037

Attn.: Scott R. Halty

Subject: H.L. Zumwalt Construction, Inc. - Water Pollution Abatement Plan (WPAP)  
**File No. 1934** – WPAP Exception Request for FM 1283 Ranch Quarry located west of the intersections of FM 471 and SH 211, on FM 1283, within the Extra Territorial Jurisdiction of San Antonio.

Dear Mr. Halty,

On behalf of H.L. Zumwalt Construction, Inc., we are responding to a SAWS letter which was addressed to Ms. Lynn M. Bumgardner of the Texas Commission on Environmental Quality (TCEQ) dated July 9, 2010. (*See Attachment A – SAWS Letter*)

A WPAP application was re-submitted to the TCEQ Region 13 office for the above referenced project and since the project site is located within the ETJ of the City of San Antonio a copy was sent to SAWS. It is our understanding after conversations with SAWS representatives that this site is in the ETJ of the City of San Antonio but SAWS has limited authority in the ETJ and since the site does not drain into the city's MS4 and the landowner is not subdividing or platting his property then SAWS has no jurisdiction over this project. The July 9, 2010 letter was expressing SAWS's concerns over the proposed project even though SAWS has no authority to implement its rules at the proposed site.

H.L. Zumwalt Construction, Inc. has reviewed the SAWS July 9, 2010 letter and after reviewing the construction company's options have decided to address SAWS's concerns as outlined in this response. This response will be sent to the TCEQ Region 13 office and incorporated into the WPAP.

**Issue #1 - Flooding**

The proposed 30 acre project area is outside the 100-year flood plain and has a 100+ foot natural buffer between the limit of disturbance and the floodplain. SAWS letter states concerns that the pit will flood. Flooding is not expected at the proposed site since the 30 acre site is located on a ridge with very little upgradient area (< 1 acre). The site is also located near the upper portion of the drainage area of the unnamed tributary of Deep Creek therefore flooding is not expected. A quarry operator does not want water in the quarry pit. H.L. Zumwalt Construction, Inc. will locate the quarry equipment in a location and at an elevation that will not be prone to flooding. (Based on SAWS's Ordinance 81491, this 30 acre project meets SAWS's regulations in terms of placement adjacent to floodplains.)

**Issue #2 – Vehicle/equipment maintenance**

As stated in the WPAP application, major vehicle and equipment maintenance will occur off-site. If major maintenance is required then the vehicle/equipment will be hauled offsite and sent to H.L. Zumwalt Construction, Inc.'s shop in Helotes, Texas.

Minor vehicle maintenance includes but is not limited to work such as tire and battery replacements and simple mechanical repairs. Minor vehicle maintenance will occur on the proposed base pad.

Minor equipment maintenance includes but is not limited to work such as the changing of conveyor belts, rollers, crusher and screen components, water sprays, and general rock crushing plant parts. Minor welding will occur at the site in order to repair plant parts. Old unused parts will be hauled offsite and sent to H.L. Zumwalt Construction, Inc.'s shop in Helotes, Texas. *(The above information is new and will be included in the WPAP.)*

**Issue #3 – Fuel storage for on-site generator**

As stated in the WPAP application, a 300 gallon diesel tank is mounted on the mobile generator trailer and would be relocated into the pit as quarry activities continued. After reviewing SAWS's comments H.L. Zumwalt Construction, Inc. has decided not to relocate the generator into the quarry pit. The 300 gallon mounted tank and generator will be located outside the quarry pit at all times. (The mounted 300 gallon tank is not used for refueling vehicles, only for operating the generator.) As quarry activities continue the 300 gallon tank and generator maybe relocated onsite but will not be relocated inside the quarry pit. The tank and generator will be located inside the proposed base fueling pad. The base fueling pad will also be located outside of the quarry pit at all times. *(The above information is new and will be included in the WPAP.)*

Additional spill measures already stated in the WPAP can be found on pages 34 – 39 of the application. Furthermore, the active TPDES General Permit TXR050000 and TPDES General Permit TXR150000 include spill response measures.

Note: The 300 gallon diesel tank is well below TCEQ, SAWS and Edwards Aquifer Authority's (EAA) hydrocarbon limit and all three agency's regulations allow for the use of such tanks on the EARZ.

**Issue #4 – Vehicle fueling**

As stated in the WPAP application, a mobile fueling truck will be utilized onsite for the fueling of equipment on the proposed base fueling pad. The mobile fuel truck will be used offsite (off property) at construction sites throughout the state and at the subject site to refuel equipment and vehicles. The mobile fuel truck will also be utilized on the 446 acre ranch for the refueling of Mr. Zumwalt's ranching equipment. The mobile fueling truck will not be stored on the 30 acre project area or the 113 acre ranch. When the mobile fuel truck is not in use it will be stored offsite (off the 113 and 446 acre properties).

Vehicle fueling will occur on-site inside the base fueling pad. The base fueling pad will be approximately 100 by 100 foot flex base surrounded by a one foot high base berm. Any base material that becomes contaminated with hydrocarbons will be removed from the site and disposed of properly. When quarrying requires the fueling pad to be relocated, a similar base pad and berm will be constructed at a location to be determined at that time outside of the pit. Any spills and/or leaks that occur will be cleaned up in a timely manner and will be disposed of properly. *(The above information is included in the current WPAP application.)*

**Issue #5 – Water inside the pit**

It is an industry standard to reuse/recycle water whenever practical. H.L. Zumwalt Construction, Inc. will reuse stormwater from the quarry pit for dust suppression on the 30 acre site. Although the WPAP and the industrial stormwater plan allow for mine dewatering after meeting the required TSS limits, H.L. Zumwalt Construction, Inc. does not expect to mine dewater. But, if mine dewatering becomes necessary the following practice will be used:

Any quarry pit dewatering required at the site would be physically accomplished using a pump to remove the water from the pit. This would only occur after solids have settled out, the water is tested and it is found to be in compliance with the numeric effluent limitations of TPDES General Permit No. TXR050000 Section J, (5)(ii) of 45 mg/L for a daily maximum and 25 mg/L for a daily average. The water would be discharged to a natural drainage area onto a rip rap pad such that soil erosion would be mitigated. Appropriate rock berm(s) would be constructed downgradient of the rip rap pad if needed to further control velocity and prevent erosion.

The background storm water runoff from undisturbed vegetated areas has a Total Suspended Solids (TSS) concentration of 80mg/L (per TCEQ TGM 3-29). The quarry pit captures this stormwater with 80mg/L and lets the sediment (TSS) settle. After sampling is done and the results meet the 45 mg/L for a daily maximum and 25 mg/L for a daily average, a pump is used to direct the water out of the pit. The water released after testing is therefore cleaner than if there were no pit. In addition, the water is released well after the stormwater in the streams have diminished which reduces stream flow volume and velocity during rain events thus reducing downstream erosion. *(The above information is included in the current WPAP application.)*

**Issue #6 – Final quarry floor elevation**

The justification of the final quarry floor elevation of 1115 feet amsl is that the project is a small operation and quarrying 25 feet deep will provide the owner with the material that he needs. Based on the available drillers logs the first potential water source would be at approximately 730' amsl. The maximum depth of the excavation for this site will be 1115' amsl, therefore approximately 385 feet of limestone rock will remain in place between the bottom of the quarry pit and the first potential water source.

**Issue #7 – Quarry floor inspections**

Due to the relatively small nature of the project and the proposed depth of excavation, it was determined that annual quarry floor inspections are protective and more than sufficient. It is expected that less than 3 acres of quarry will be excavated in any one year period; therefore additional inspections throughout the year would yield no benefit due to the slow progression of the pit.


**Issue # 8 – Disposal of vegetation**

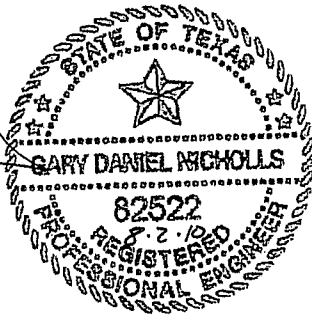
The initial quarry area is not heavily vegetated. As the quarry moves north and vegetation is removed the vegetation will be used as a brush berm and/or removed from the site. It is possible that some brush may be burned according to state and local laws. H.L. Zumwalt Construction, Inc. understands that new regulations have been enacted and will adhere to state and local laws. Brush will not be stored in the active quarry pit. *(The above information is new and will be included in the WPAP.)*

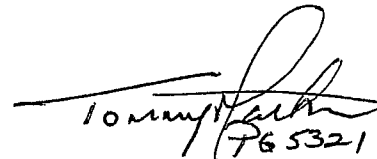
Based on the new information submitted in this letter, H.L. Zumwalt Construction, Inc. respectfully requests SAWS to reevaluate the WPAP and support this application.

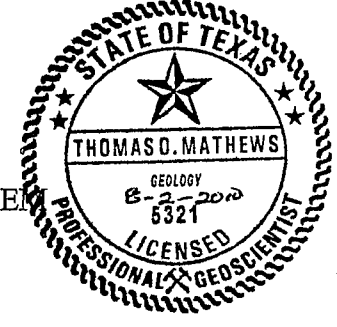
If your staff has any questions regarding this response, please call our office at (830) 249-8284.

Respectfully submitted,  
WESTWARD ENVIRONMENTAL, INC.

  
Gary D. Nicholls, P.E.  
Vice President



  
Tommy Mathews, P.G., REI  
President



Attachments:            *Attachment A – SAWS Letter*

Distribution:            Addressee (original)  
                                 Ms. Charly Fritz – TCEQ Region 13  
                                 Mr. Zumwalt – H.L. Zumwalt Construction, Inc.  
                                 WEI 10022-037 file

mb



July 9, 2010

Ms. Lynn M. Bumguardner  
Texas Commission on Environmental Quality  
14250 Judson Road  
San Antonio, Texas 78233-4480

Re: File No. 1934- Water Pollution Abatement Plan Exception Request for **FM 1283 Ranch Quarry** located west of the intersections of FM 471 and SH 211, on FM 1283, within the Extra Territorial Jurisdiction of San Antonio.

Dear Ms. Bumguardner:

SAWS Aquifer Protection and Evaluation Section staff of the Resource Protection Division has completed its review of the application submitted for the above referenced Water Pollution Abatement Plan (WPAP) Exception Request received on June 16, 2010. This application is for the proposed construction of a 30 acre quarry operation. The applicant is asking for an exception to permanent BMPs, however is planning to use temporary BMPs. The overall site covers 113 acres with a proposed impervious cover of 0.27 acres (0.24%).

#### TECHNICAL REVIEW

SAWS Aquifer Protection & Evaluation staff reviewed the submitted WPAP exception request for FM 1283 Ranch Quarry. The geologic assessment portion of the WPAP indicates there are no sensitive geologic features. The applicant is proposing vehicle/equipment maintenance, refueling operations, and a 300 gallon above ground storage tank for the on-site generator within the quarry pit area. The applicant proposes the construction of significant rock berms and rock lined swales as temporary BMPs along the entire perimeter of the working pit, expanding as excavation proceeds. At the end of quarrying activities, the applicant proposes a "final rock berm" along the furthest extent of excavation. The applicant proposes that stormwater runoff occurring within the working pit be retained and allowed to evaporate within the pit. In the event that the working pit requires dewatering, this water will be discharged through Deep Creek. Additionally, no portion of the proposed 30 acre quarry activity area lies within the 100-year floodplain area, however; a portion of the overall 113 acre Zumwalt Property does lie within the 100-year floodplain.

#### TECHNICAL RECOMMENDATIONS

SAWS recommends all of the following activities take place off site since quarry pits are subject to flooding:

- All vehicle/equipment maintenance.
- Any and all refueling operations.
- Fuel storage for on-site generators or vehicle use.

SAWS recommends that if a fueling pad is to be constructed, it be constructed of concrete with concrete curbs sufficient to contain 150% of a complete release of the total fuel load of this fueling truck. The justifications for the proposed exception to permanent BMPs do not appear to properly demonstrate sufficient protections to the sensitivity of the area. SAWS recommends the use of permanent BMPs throughout all working quarry and /or excavation areas. The "final rock berm" essentially serves the same purpose as a permanent BMP. SAWS recommends that the "final rock berm" be installed first, prior to beginning quarrying activities, and serving as secondary containment for the temporary rock berms as quarrying activity proceeds.

SAWS recommends that any retained water that does not evaporate be reused within the working pit for purposes such as dust abatement spraying, etc. In the event of a significant rainfall event that requires dewatering, it is recommended that a BMP able to desilt the first flush of discharge water be installed.

A final floor elevation of 1115' is being proposed, although no justification for this final floor elevation was provided other than "quality of rock and market conditions". It was noted that no Edwards wells were found on site, although 2 wells adjacent were completed to the Trinity. These well logs did not include the depth to the Edwards/Trinity transition, and noted that the well was cased through the Edwards. Therefore, specific stratigraphic information needs to be reviewed prior to determining final floor elevation, in order to avoid potential impacts to the Edwards Aquifer water table.

During excavation/quarrying activities, the applicant proposes an annual quarry floor inspection by a Professional Geologist in order to determine the existence of discovered, sensitive geologic feature as defined by TCEQ. SAWS recommends that this inspection be made on a quarterly basis and if any sensitive geologic feature is discovered, SAWS Aquifer Protection and Evaluation Section and TCEQ be notified.

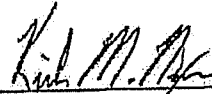
Based on previous experience of the applicant burning vegetation material within the Edwards Recharge Zone, SAWS recommends that alternative disposal methods of cleared vegetation be considered. However, if TCEQ approves onsite burning of cleared vegetation, the applicant should be apprised that new state regulations regarding burning of brush and mulch have been enacted, and that the applicant adheres to these regulations.

Based on the WPAP information submitted by the engineer, staff recommends **disapproval** of this application. SAWS has concerns, specifically within the quarry pit area, regarding the possibility of fuel spills due to refueling operations, generator fuel storage, and equipment and vehicle maintenance activities.

Ms. Lynn M. Bumgardner  
FM 1283 Ranch Quarry  
Page 3

If you have any questions or require additional information, please contact the SAWS Aquifer Protection and Evaluation Section at (210) 233-3526.

Sincerely,



\_\_\_\_\_  
Kirk M. Nixon  
Manager, Resource Protection Division



\_\_\_\_\_  
Scott R. Halty  
Director, Resource Protection & Compliance Department

KMN: MJB/BVK

cc: Gary Nicholls, P.E., VP, Westward Environmental, Inc.  
Robin Tremallo, Edwards Aquifer Authority  
Henry L. Zumwalt, H.L. Zumwalt Construction, Inc.

# **APPENDIX E**



Protecting Texas  
by Reducing and  
Preventing Pollution

# FAX TRANSMITTAL

DATE: July 27, 2010 NUMBER OF PAGES (including cover sheet): 2

TO: Name Mr. Gary Nicholls, P.E.  
Organization Westward Environmental, Inc.  
FAX Number (830) 249-0221

TO: Name Mr. Henry Zumwalt  
Organization H.L. Zumwalt Construction, Inc.  
FAX Number (210) 695-5651

FROM: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
Name Charly Fritz  
Division/Region San Antonio - Edwards Aquifer Protection Program  
Telephone Number (210) 403-4065  
FAX Number (210) 545-4329

Re: Edwards Aquifer, Medina County

NAME OF PROJECT: FM 1283 Ranch Quarry; Located on FM 1283 approximately 5 miles west of FM 471 and SH 211, San Antonio ETJ, Texas  
PLAN TYPE: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program ID No. 2897.01

Dear Mr. Nicholls:

We are in the process of technically reviewing the WPAP you submitted on the above-referenced project. Before we can proceed with our review, the following comments relating to the application must be addressed.

1. As stated in the Edwards Aquifer rules, the WPAP must be implemented to prevent pollutants from entering surface water or groundwater. Revise the Project Description (specifically page 8, paragraph 4) to state that storm water, captured in the quarry pit, will not discharge to either surface water or groundwater.
2. Provide a drainage area map or update the site plan to show the common drainage areas when the site is at the initial, 7 acre phase and at the final, 30 acre extent.
3. The earthen berm proposed most closely resembles the diversion dike found in the Edwards Aquifer Technical Guidance Manual (RG-348, 2005). As stated in RG-348, soil for the diversion dikes should be placed in lifts of 8 inches or less and be compacted to 95% standard proctor density. In the WPAP, 12 inch lifts are proposed for the earthen berm and the Sequence of Activities states "...it is not considered necessary to perform density testing of the earthen berm." Explain why 12 inch lifts are proposed and what measures will be implemented to ensure the earthen berms are properly compacted.

4. In the WPAP application, inspection of the BMPs and measures will occur "...every 14 calendar days and within 24 hours of the conclusion of each rainfall greater than or equal to 0.5 inches or inspected weekly." RG-348 states rock berms and diversion dikes should be inspected weekly. Revise the application, as necessary, to clarify the frequency of inspections.
5. Provide a schematic of the fueling pad.
6. Under what conditions will stormwater, which collects in the quarry pit, have to be discharged under the TPDES general permit and what is the process that must be taken to discharge under the permit? The TGM states that "when possible avoid dewatering discharges by using the water for dust control..." Will collected storm water be used for dust control?
7. General notice item: 30 TAC §213.4(b)(3) states an Edwards Aquifer protection plan approval will expire if less than 50% of the total construction has not been completed within 10 years from the approval date. A new protection plan must be submitted and approved prior to commencing any additional regulated activities beyond 10 years.

We ask that you submit one original and five copies of the amended materials to supplement the WPAP to this office by no later than **14 days from the date of this fax** to avoid denial of the plan. If the response to this notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, a second notice will be sent to you requiring a response within 14 days from the notice date. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application will be denied unless you provide written notification that the application is being withdrawn. Please note that the application fee will be forfeited if the plan is not withdrawn. If you have any questions or require additional information, please contact Charly Fritz of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4065.



Protecting Texas  
by Reducing and  
Preventing Pollution

# FAX TRANSMITTAL

DATE: July 30, 2010 NUMBER OF PAGES (including cover sheet): 2

TO: Name Mr. Gary Nicholls, P.E.  
Organization Westward Environmental, Inc.  
FAX Number (830) 249-0221

TO: Name Mr. Henry Zumwalt  
Organization H.L. Zumwalt Construction, Inc.  
FAX Number (210) 695-5651

FROM: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
Name Charly Fritz  
Division/Region San Antonio - Edwards Aquifer Protection Program  
Telephone Number (210) 403-4065  
FAX Number (210) 545-4329

Re: Edwards Aquifer, Medina County  
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PLAN TYPE: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program ID No. 2897.01

Dear Mr. Nicholls:

The first Notice of Deficiency (NOD) was faxed on July 27, 2010. On July 30, 2010, the Applicant's authorized agent requested clarification of a specific item in the NOD, copied below:

"As stated in the Edwards Aquifer rules, the WPAP must be implemented to prevent pollutants from entering surface water or groundwater. Revise the Project Description (specifically page 8, paragraph 4) to state that storm water, captured in the quarry pit, will not discharge to either surface water or groundwater."

Attachment C (Project Description) states that "upon termination of quarrying activities, stormwater that is located in the quarry pit will not discharge to the surface; it will be retained in the pit." The investigator's intent, with the NOD comment, was to have an additional statement confirming that pollution of groundwater will not occur.

As stated in the Edwards Aquifer rules, the technical report (WPAP) must describe the temporary and permanent best management practices (BMPs) and measures that will be used during and after construction (§213.5(b)(4)(B) and §213.5(b)(4)(C)). Both rules state that:

Mr. Gary Nicholls, P.E.  
July 30, 2010  
Page 2

"BMPs and measures must prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site..." (§213.5(b)(4)(B)(ii) and §213.5(b)(4)(C)(ii))

Update Attachment C (Project Description) to confirm the BMPs and measures, proposed in the application, will prevent the discharge of pollutants to groundwater during and after construction.

If you have any questions or require additional information, please contact Charly Fritz of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4065.