

3/13/12
County Admin.

Douglas, Jessica

From: Arnold, Bradley
Sent: Tuesday, February 28, 2012 7:43 AM
To: Douglas, Jessica
Subject: FW: Meeting with FDEP 27Feb 2012 re: Sumter County Solid Waste Facility issues
Attachments: CDA and landfill issues telecon with FDEP; FDEP mtg re sumter county 27 Feb 12_0001.pdf; Meeting between FDEP and Sumter County PWD.docx; RE: Sumter County Closed Class I Landfill, Additional PCAP Site Investigations Report [facility #53008]

Jessica,

Add this to my reports for the March meeting to include the attachments and email content below.

Bradley

From: Cottrell, Scott
Sent: Monday, February 27, 2012 5:25 PM
To: 'Pelz, Susan'; nancy.gaskin@dep.state.fl.us; Morris, John R. (John.R.Morris@dep.state.fl.us); 'elizabeth.knauss@dep.state.fl.us'; 'steve.morgan@dep.state.fl.us'
Cc: Jackson, Jackey; Segrest, Becky; Wise, Jimmy; Ted Strouse <ctlts@aol.com> (ctlts@aol.com); rickpotts@cfl.rr.com; David Springstead; Jordan, Jack; Terry, Maurice; Arnold, Bradley
Subject: Meeting with FDEP 27Feb 2012 re: Sumter County Solid Waste Facility issues

Susan, et al,

Many thanks for meeting with me today. For reference, I attached the sign in sheet for today's meeting, the agenda for today's meeting, and the minutes from our 15 Nov 2011 meeting:

Notes from today:

1. Status of activities: Scott provided an update of on going and planned activities at the SCSWF.
 - a. The new joint AS/CDA bldg., the CDA laydown yard, the Animal Services Euthanasia Room and Horse Barn will go out for bid within 30 days with award and start of construction in May. Construction will be complete in October or November 2012. **DEP – Susan** –can you please send us an email verifying DEP's concurrence with the new CDA location, assuming the new permits and operations manual are approved).
 - b. A sod farm is being built on the north side of C470, across from County property and the landfill. It may include a line from the Bushnell WWTP (reclaimed water) for irrigation on the sod farm. It may also include use of the 6" water line from the well and pump at the back near the WWTP, for irrigation as well. This would have to be designed and permitted thru SWFMWD and FDEP. The developer is aware and already in communication with them. The sod farm may lease area under the pole barn behind the MRF to temporarily store sod. We will let FDEP know if they do just to keep them informed.
 - c. Sumter County continues to seek buyers for the center and southern ¼ sections.
 - d. We have put some efficiencies in effect at the CDA. Now just 3 full time employees and 5 days a week. We plan to start hauling our own waste to the various transfer stations or landfills, with on call support from a contractor as required.
 - i. **DEP (Nancy Gaskin)** will send us the form to complete so we can get a sticker for hauling waste tires. Cost = \$35.
2. Status of consent order.
 - a. We are making progress See attached email with John Morris's comments on the 9 Dec 11 TCG letter.

- b. PWD (Jackey Jackson) and TCG (Rick Potts) will ensure the direction shown by the 6 bullets under paragraph 7, will be adhered to. This includes routine quarterly sampling, samples from MW-4C and MW-4D, and monthly ground water levels, and submission of the 2012 Q1 report NLT 15 April 2012.
 - c. PWD (Scott, Jackey and Becky) will assess FAC 62-520.200 (10) and 62.520.520 (1) for "existing installation" status.
3. Status of terminating close landfill monitoring
- a. We are not making much progress here. The recent annual gas monitoring report by TCG (19 Jan 12) reveals that most interior gas vents are showing 100% LEL.
 - b. The good news is the peripheral gas probes are all showing 0%.
 - c. Decisions to terminate monitoring of closed landfills include assessments of:
 - i. Groundwater impacts
 - ii. Gas generation
 - iii. Cap settlement
 - d. We could try some sort of mechanical extraction system or flames/flares to burn the methane off faster, if the expense was OK.
 - e. Another possibility would be small fan attachment to the vents to speed up the venting and dissipation of the gas.
 - f. We need to correct 2 parts of the 19 Jan 12 report ASAP (Rick Potts, TCG)
 - i. Find GV21 and GV25, and/or reinstate them, and then get measurements.
 - ii. Make sure we did not miss any vents in the asphalt.
 - iii. Submit an addendum to the 19 Jan 12 report.
4. Status of subsurface testing at the old plastic dirt pile area. DEP - John Morris will send confirmation of the plan to PWD and CTL
- a. DEP likes the 19 Jan 12 letter from CTL explaining the current status and plan for 3 monitoring wells
 - b. Locations for MWB-1, MWC-2, and MWC-3 are OK.
 - c. We will use the 3 new monitoring wells and continue to take groundwater information from PZ 1-4, during the next phase.
 - d. There will be an initial reading set once the 3 new wells are installed; that feedback will tell us how long we have to do the quarterly monitoring thereafter.
5. Status of the SCSO's berm
- a. Jack Jordan is the POC for the Sheriff's Office and the pistol range berm. His contact information is: JJordan@sumtercountysheriff.org and phone: 352-793-0665. DEP - Beth Knauss will contact Jack regarding the status of the lead, and any chemical analysis they may have done. Deputy Chief Jimmy Terry and Gene Evans are also good SCSO POC's.
 - b. The SCSO has a Lead Management Plan that involves periodic lead abatement activities.
 - c. DEP - Beth has seen our CTL report on the berm from 6 Sep 11, and she will send us an email describing exactly the additional information she needs regarding the plastic debris and contamination in the berm, with respect to leaving it there.
 - d. CTL - Ted - be prepared to send Beth Knauss a map or aerial depicting the specific locations where you had Flowers do chemical testing at AB3X, AB6X and AB7X. Verify that these were taken from the top of the berm, down. Also be prepared to send her the methodology you followed in doing the chemical testing.
 - i. CTL - Ted - also be prepared to conduct some additional testing on the berm at the end of the range.
 - e. DEP - Beth provided PWD with an FDEP Manual on Best Management Practices for Environmental Stewardship of Florida Shooting Ranges.
6. Status of new permits.
- a. David Springstead of SEI is re-doing the transfer station/CDA permit with operations manual, and the tire collection permit.
 - b. SEI - David and PWD - Becky - send Susan Pelz at FDEP the most current drafts you have of both permits and the draft operations manual; they will start reviewing now, while in draft, so that they do not hold us up in October/November when we move to the new CDA.

To ALL – if I left something out, or misunderstood what we discussed, please let me know ASAP.

Scott B. Cottrell, PE
Director, Public Works
Sumter County, FL
352-569-6700

Douglas, Jessica

From: Cottrell, Scott
Sent: Tuesday, November 15, 2011 2:17 PM
To: 'susan.pelz@dep.state.fl.us'; nancy.gaskin@dep.state.fl.us; rickpotts@cfl.rr.com; Ted Strouse <ctlts@aol.com> (ctlts@aol.com); Jackson, Jackey; David Springstead; NStalder@BSA-Civil.com
Cc: Segrest, Becky; Wise, Jimmy
Subject: CDA and landfill issues telecon with FDEP
Attachments: CTL test asphalt pad.pdf

To ALL who participated in the subject telecon today, many thanks. Here are the key points I got out of it. If I missed a key point or misunderstood any direction, please let me know.

1. Doug Conway from FD/PWD and Nicole Stalder from BSA updated FDEP on the status of the proposed construction project at the landfill, and how the new CDA laydown area and joint CSA/Animal Services bldg. fit in.
 - a. Horse Barn and Euthanasia room are not related to the CDA, but are part of the one large project that will go out to bid soon.
 - b. The joint CDA/Animal services bldg will include the utilities pushed out to the CDA laydown area, for power, lights and security cameras.
 - c. The CDA laydown area will include the access road, and turn lane off of CR529.
2. FDEP asked about the material under the existing asphalt on the north pad (new CDA site), and the depth of the testing we did.
 - a. CTL tested the pad and the material beneath it in October 2010 (see attached).
 - b. Six (6) cores in the existing pavement and three (3) hand auger borings to depths of 10', 10', and 7' were made. No debris/trash was encountered.
 - c. FDEP told us to include language in the contract that tells the contractor to dispose of waste/trash they may encounter when installing the push wall foundation (Doug and Nicole).
 - i. Note – the push wall is optional. If too costly, PWD will install their existing relocatable push wall blocks.
 - ii. Doug and Nicole – we need to clarify who is providing the detail on the push wall foundation.
3. FDEP requested to review the specs on the trash compactors – Jackey please get this to Susan and Nancy.
4. FDEP told us to ensure the contractor removes the liner from the old compost pond, before they backfill – note in the plans Nicole.
5. David Springstead from SEI reviewed the status of the permits and operations manual he is preparing for the new CDA operating location.
 - a. FDEP requested copies of the boundary surveys and legal descriptions of the reduced County landfill area after we sell the rest of the land – David please send these to FDEP.
 - b. Both the new CDA (transfer station) and the new waste tire permits will be new permits, not extensions or renewals. That way we will get five years on both, and be disassociated with the old areas once they are sold off. We will maintain the existing permits as active until the new CDA is operational.
6. Ted Strouse from CTL discussed the testing done to date on the area with the suspected plastic dirt contamination, and the sheriff's berm.
 - a. The piezometers are in place at the site behind the MRF and CTL has taken some readings to assess movement and groundwater contamination, if any. They will continue to take readings and pass the data to PWD and FDEP.
 - b. At the sheriff's berm, CTL did both mechanical auguring and chemical analysis of the material they recovered from inside the berm.
 - i. There is trash/debris in most of the berm.
 - ii. Chemical testing of the trash revealed that nothing exceeded SCTLs.
 - c. FDEP requested that we test the soil in the immediate vicinity of the debris in the berms.

- i. CTL will contact FDEP to ensure they understand the intent of the testing and prepare an amendment to their current task order. Ted.
 - ii. PWD (Jackey) will contact the SCSO about the potable well that is within 50' of the berm, for what their continued need is, and possible abandonment.
 - iii. PWD (Jackey) will also contact he SCSO about any chemical testing and analysis they did related to the removal of the lead from the berm.
 - d. FDEP indicated that depending on the expected future use of the land at the berm site by the new owner, and depending on the results of the soil testing which CTL will do, remedial actions may be not be significant.
- 7. Rick Potts from The Colinas Group talked about the consent order.
 - a. The two new monitoring wells have been installed near the scale house, but are only being used as piezometers for now.
 - b. These new wells could be used for monitoring if needed later on.
 - c. He indicated that based on current and past results, a case can be made for considering the consent order satisfied.
 - d. The biannual report included information related to the consent order as does the report that Rick will be sending FDEP within 2 weeks.
 - e. PWD would like to close out the consent order and satisfy the closed landfill permit too.
 - f. FDEP will assess the information and then discuss the possibilities with PWD.
 - i. PWD will with FDEP in Tampa on this issue, if necessary.

Thanks,

Scott

Scott B. Cottrell, PE
Director, Public Works
Sumter County, FL
352-569-6700

Central Testing Laboratory

EB 0002407

Engineering & Materials Testing

Reply to:

Leesburg

October 11, 2010

Board Of Sumter County Commissioners
Public Works Division
319 E. Anderson Avenue
Bushnell, Florida 33513
352-793-0290
352-793-0247 Fax

Attn.: Mr. Jackey Jackson

Subject: Evaluation of Pavement Section
Lot behind Animal Control Facility
Sumter County, Florida
CTL File No.1084079.100

Dear Mr. Jackson:

Central Testing Laboratory (CTL) has completed our evaluation of the pavement section of the lot behind the Animal Control Facility at the Sumter County Solid Waste Facility site. This evaluation was performed to formulate our opinion of the suitability of the lot as a staging area for 40 cubic yard roll-off dumpsters.

It is our understanding that both loaded and unloaded dumpsters will be staged in this area. The trucks dropping and picking up the dumpsters were described as having a single steering axle and tandem drive axles and tandem trailer axles.

Our evaluation consisted of performing a visual inspection of the lot, making six cores through the pavement section to identify asphalt, base and sub-base thickness, performing three hand auger borings beneath the pavement section and performing one test cut for performance of field density tests of the base and sub-base materials. From the cores and the test cut areas, material samples were collected for laboratory testing to determine the physical and engineering properties of the asphalt, base and sub-base.

5400 S. Florida Avenue
Inverness, FL 34450
(352) 726-6447

130 Satellite Ct.
Leesburg, FL 34748
(352) 787-1268

Sumter County
(352) 793-3110

1725 SW 17th Street
Ocala, FL 34471
(352) 622-1186

Member of the American Society for Testing and Materials



The data collected in the field and the results of the laboratory testing was used to identify the existing pavement section and to estimate the original design Structural Number (SN). A comparison was made to the minimum SN section determined following the AASHTO design guidelines as if this were a new section using the following parameters:

Reliability (R) = 90%
Standard Deviation (So) = 0.5
Estimated ESALs = 100,000
Soil Resilient Mod (M_r) = 5000 psi
Vehicle Type HS 20 Loading
Design Serviceability Loss (Δ psi) = 2.0

The results of the field inspection, coring and test cut indicate that the pavement surface is weathered, oxidized and cracked throughout. Vegetation was observed in numerous cracks and there was no evidence of maintenance to the asphalt surface. When removing the asphalt in the test cut area, the asphalt was brittle and easily separated from the base material. The results of the cores made through the pavement section indicate the following typical section:

	<u>Range</u>	<u>Average</u>
Asphalt Concrete Thickness (inches)	1.25 – 1.75	1.56
Limerock Base Thickness (inches)	5.50 – 6.50	5.98
Sand Clay Sub-base Thickness (inches)	3.0 – 8.50	5.54

Auger borings performed in the sub-grade soils beneath the lot encountered fine sand soils AASHTO Classification A-3 from beneath the sub-base to the terminal depth of the borings at 10 feet below the pavement surface. Groundwater was not encountered in any of the borings at the time of augering. The results of the coring and auger boring are presented on the attached Boring Logs.

Laboratory testing of the materials collected indicated a Type II Asphaltic Concrete. The base materials appear to be FDOT grade limerock having an LBR value of 121. The sub-base consisted of a mixture of sand and clay having an LBR value of 52. Density testing of the base and sub-base in the field and laboratory resulted in a 93% and 90% percent of a modified effort proctor values obtained for each material. Results of the Field and Laboratory testing are presented on the attached Testing Summary.

Using the field data and results of the laboratory testing along with the standard FDOT structural layer coefficients for each material, the original design SN of the existing lot was estimated to be on the order of 2.08 to 2.36. In the comparison to a SN determined following the AASHTO guidelines and the parameters presented earlier in this report the recommended minimum SN would be on the order of 2.7. Based on this comparison the existing pavement section is under designed for the intended use.

In addition, the condition of the asphaltic concrete surface indicates that the asphalt is near the end of its service life. This is consistent with our review of aerial photographs taken that indicate this lot has been in use since prior to 1995.

In conclusion it is CTL's opinion that the existing lot will begin to deteriorate rapidly when subjected to the anticipated loading and type of activity associated with loading and unloading the dumpsters. The fact that the section appears to be under designed for this use would indicate an increased potential for section failure of the base and the sub-base leading to rutting. The age and condition of the asphalt surface indicates that it is near the end of its service life. It is our opinion that the asphalt will continue to crack and will easily separate from the base material. This condition would require continuous maintenance and may expose the base and sub-base to the elements increasing susceptibility to section failure.

Central Testing Laboratory appreciates this opportunity to provide these services for Sumter County. If you have any questions regarding this report, or if we can be of further assistance in any way, please do not hesitate to contact us at our Leesburg office at 352-728-2245 or by fax at 352-728-2245 or by e-mail at tstrouse@ctfl.com.

Respectfully submitted,
CENTRAL TESTING LABORATORY, INC.


Theodore J. Strouse, P.E.
Principal Engineer
Florida Registration No. 48220
10/12/10

TJS/tmb

Attachments:

- Boring Logs
- Testing Summary

BORING LOG

BORING NO. AB-1

PROJECT LOCATION: Sumter County Landfill
 BORING LOCATION: 60'E 2'N OF SW CORNER
 BORING METHOD: ASTM D-4700
 CLIENT: Sumter County Public Works
 DEPTH TO WATER: NE

DATE: 10/4/10

DRILLER: Ted Strouse

DEPTH OF COLLAPSE: NE

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT		
			PERCENT PASSING #200 ●			
			Moisture, % *			
			N-VALUE			
			10	20	30	40
0		ASPHALT CORE				
		LIMEROCK BASE				
		10YR 6/5 BROWNISH YELLOW SAND WITH CLAY (SC)				
		STABILIZED SUBBASE				
1.5		10YR 3/2 VERY DARK GRAYISH BROWN FINE SAND (SP)				
		10YR 4/2 DARK GRAYISH BROWN FINE SAND (SP)				
3		10YR 6/4 LIGHT YELLOWISH BROWN FINE SAND (SP)				
		10YR 7/4 VERY PALE BROWN FINE SAND (SP)				
4.5						
6						
7.5						
9						
10.5		END OF BORING				

Notes: NE= NOT ENCOUNTERED

BORING LOG

BORING NO. AB-2

PROJECT LOCATION: Sumter County Landfill
 BORING LOCATION: 17'S OF N SIDE & 115'W OF E END
 BORING METHOD: ASTM D-4700
 CLIENT: Sumter County Public Works
 DEPTH TO WATER: NE

DATE: 10/4/10
 DRILLER: TED STROUSE
 DEPTH OF COLLAPSE: NE

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS PLASTIC LIMIT ——— LIQUID LIMIT PERCENT PASSING #200 ● Moisture, % * N-VALUE ———
			10 20 30 40
0		ASPHALT CORE	
		LIMEROCK BASE	
1		10YR 6/5 BROWNISH YELLOW SAND WITH CLAY (SC) STABILIZED SUBBASE	
2		10YR 2/2 VERY DARK BROWN FINE SAND (SP)	
3		10YR 4/2 DARK GRAYISH BROWN FINE SAND (SP)	
4			
5			
6			
7		END OF BORING	

Notes: NE= NOT ENCOUNTERED

BORING LOG

BORING NO. AB-3

PROJECT LOCATION: Sumter County Landfill
 BORING LOCATION: 110'S OF N SIDE & 210'W OF E END
 BORING METHOD: ASTM D-4700
 CLIENT: Sumter County Public Works
 DEPTH TO WATER: NE

DATE: 10/4/10
 DRILLER: TED STROUSE

DEPTH OF COLLAPSE: NE

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT	PERCENT PASSING #200 ●	Moisture, % *
			N-VALUE			
			10	20	30	40
0		ASPHALT CORE				
		LIMEROCK BASE				
		10YR 6/5 BROWNISH YELLOW SAND WITH CLAY (SC)				
1.5		STABILIZED SUBBASE				
		10YR 6/3 PALE BROWN FINE SAND (SP)				
		10YR 3/3 DARK BROWN FINE SAND (SP)				
3		10YR 6/4 LIGHT YELLOWISH BROWN FINE SAND (SP)				
4.5		10YR 7/4 VERY PALE BROWN FINE SAND (SP)				
6						
7.5						
9						
10.5		END OF BORING				

Notes: NE= NOT ENCOUNTERED

KEY TO SYMBOLS

Symbol Description

Strata symbols



ASPHALT



LIMESTONE



CLAYEY SANDS
SAND-CLAY MIXES



POORLY GRADED SANDS
OR GRAVELLY SANDS
LITTLE OR NO FINES

Soil Samplers



Rock core



Auger

Notes:

- ELEVATIONS REPORTED ON LOGS PROVIDED BY CLIENT.
- THESE LOGS ARE SUBJECT TO THE LIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS IN THIS REPORT. DUE TO POSSIBLE VARIANCES IN THE SUBSURFACE BETWEEN THE LOCATIONS OF THE BORINGS, AND THE VARYING DEGREE OF DISTURBANCE, THE DESCRIPTIONS GIVEN ARE GOOD ONLY FOR THE MATERIALS REMOVED DURING THE CONSTRUCTION OF EACH BORING.
- RELATIVE DENSITY (sand-silt)

VERY LOOSE - Less than 4 blows/ft.	LOOSE - 4 to 10 blows/ft.
MEDIUM - 10 to 30 blows/ft.	DENSE - 30 to 50 blows/ft.
VERY DENSE - More than 50 blows/ft.	
- CONSISTENCY (clay)

VERY SOFT - Less than 2 blows/ft.	SOFT - 2 to 4 blows/ft.
MEDIUM - 4 to 8 blows/ft.	STIFF - 8 to 15 blows/ft.
VERY STIFF - 15 to 30 blows/ft.	
HARD - More than 30 blows/ft.	
- COLORS ARE DETERMINED BY USING THE MUNSELL SOIL COLOR CHART AND THE VALUES ARE GIVEN IN CODE SUCH AS 10YR 3/4.

Attachment

TESTING SUMMARY

CORING

Core No.	Location	Thickness (Inches)		
		Asphalt	Limerock	Sub-base
1	60'E & 2' N of SW Corner	1.625	5.50	7.00
2	200' E of West end & 16' N of S side	1.750	5.75	5.00
3	30' & 45'N of SE Corner	1.250	5.50	3.00
4	17'S of N side & 115'W of East end	1.750	6.25	8.50
5	110'S of N side & 210'W of East end	1.250	6.625	4.00
6	15'S of N side & 310'W of East end	1.750	6.50	5.75

LIMEROCK BEARING RATIO

Sample Description	Lab Density	Optimum Moisture	LBR Value
Limerock Base	115 lb/ft ³	11 %	121
Sub-base	124 lb/ft ³	9%	52

FIELD DENSITY

Location	Lab OMC	Proctor Density	% Moisture	Dry Density	% Compaction
Test Cut - (70'S of N side & 145'W of East end)					
Limerock Base	11	115	13.8	106.8	93
Stabilized Sub-base	9	124	17.4	111.2	90

ASPHALT EXTRACTION & GRADATION

U.S. Standard Sieve	% Passing	Type II Spec. Range
1/2"	100	100
3/8"	100	90 - 100
# 4	98	80 - 100
# 10	82	55 - 90
# 40	90	-
# 80	11	-
# 200	4.9	2 - 12
Asphalt Content = 6.88 %		

Meeting between FDEP and Sumter County PWD

27 Feb 2012

Agenda:

1. Status of activities and plans at the SCSWF (PWD)
 - a. New CDA and joint AS/CDA bldg.
 - b. Sod Farm
 - c. Transfer/sale of much of center and south 40 acre sections
 - d. CDA Efficiencies
2. Status of Consent order (PWD and FDEP)
3. Status of terminating closed landfill testing and monitoring (PWD and FDEP)
4. Status of subsurface testing at old plastic dirt pile (PWD and FDEP)
5. Next steps of the SCSO's berm testing (
6. Status of new permits
 - a. Transfer station/CDA (3 Sep 14) (PWD)
 - b. Tire collection (31 Oct 12) (PWD and FDEP)
 - c. Closed landfill??? (15 Jun 14) (FDEP)

Douglas, Jessica

From: Cottrell, Scott
Sent: Monday, January 09, 2012 12:06 PM
To: 'Morris, John R.'
Cc: Jackson, Jackey; rickpotts@cfl.rr.com; Pelz, Susan; Watson, Stephanie M.; Segrest, Becky
Subject: RE: Sumter County Closed Class I Landfill, Additional PCAP Site Investigations Report [facility #53008]

John,

Thank you for your detailed response. We will conduct the sampling and ground water level measurements, and create the contour maps as directed and submit those results to you NLT 15 April 2012.

As suggested, we will also coordinate a meeting with you prior to 15 April to discuss the first quarter results, and their adequacy for characterizing ground water impacts.

Scott B. Cottrell, PE
Director, Public Works
Sumter County, FL
352-569-6700

From: Morris, John R. [mailto:John.R.Morris@dep.state.fl.us]
Sent: Monday, January 09, 2012 11:31 AM
To: Cottrell, Scott
Cc: Jackson, Jackey; rickpotts@cfl.rr.com; Pelz, Susan; Watson, Stephanie M.
Subject: Sumter County Closed Class I Landfill, Additional PCAP Site Investigations Report [facility #53008]

Mr. Cottrell:

The Department has received the results of additional investigation conducted at the referenced facility. The letter prepared by the Colinas Group, Inc., re: "Additional PCAP Site Investigations," dated December 9, 2011, was received via e-mail on December 14, 2011 [referred to as the "**December 9, 2011 letter**"]. This letter summarized the activities completed at the facility that were discussed during the meeting conducted with you, Jackey Jackson, and representatives of the City of Bushnell on June 7, 2011. These additional investigative activities were recommended in Section 10.0 of the document entitled "Sumter County, Closed Class I Landfill, Water Quality Evaluation Report (Quarter IV 2008 – Quarter I 2011)," prepared by the Colinas Group, Inc., dated July 2011, received August 1, 2011 [referred to as the "**WQER document**"], as conditionally approved by the Department's e-mail dated September 12, 2011. Thank you for providing the results of this additional investigation.

Based on review of the December 9, 2011 letter and the WQER document, the Department has made the following observations:

1. The boring logs completed at the locations of new piezometers MW-4C and MW-4D installed near the northwest corner of the facility appeared to indicate no saturated sediments were encountered above the confining unit overlying the limestone sediments. This finding appears to be consistent with historical site-specific information that indicated the upper Floridan aquifer represented the uppermost aquifer at the facility.
2. New survey information that presented casing elevations of the existing monitor wells and piezometers obtained during August 2011, and survey information that presented casing elevations and latitude/longitude coordinates of new piezometers MW-4C and MW-4D obtained during September 2011 were included in the December 9, 2011 letter. The new casing elevations should be used to calculate ground water surface elevations for future water level measurement events conducted at the facility.

3. The ground water surface elevation contour maps prepared for the water level measurements collected during October 14, 2011 and November 22, 2011 using the new survey information as presented in the December 9, 2011 letter indicated a general ground water flow direction across the facility toward the northwest.
4. Nitrate concentrations reported for ground water samples collected from well MW-4 for the period of review included in the WQER document [2008 QIV to 2011 QI] have decreased from 13 mg/L to 8.1 mg/L. As indicated in the December 9, 2011 letter, nitrate concentration reported for ground water samples collected from well MW-4 for the 2011 QII and 2011 QIII sampling events appeared to continue the trend of decreasing concentrations [7.7 mg/L and 7 mg/L, respectively].
5. Nitrate concentration reported for ground water samples collected from well MW-4A for the period of review included in the WQER document increased [from 11 mg/L to 12 mg/L]. It is noted that the nitrate concentrations reported for ground water samples collected from well MW-4A for the 2011 QII and 2011 QIII sampling events appeared to continue the trend of increasing concentrations [14 mg/L and 13 mg/L, respectively] that exceed the primary ground water standard.
6. Gross alpha concentrations for ground water samples collected from well MW-11 for the period of review included in the WQER document were frequently above the primary ground water standard. It is noted that the gross alpha concentrations reported for ground water samples collected from well MW-11 for the 2011 QII and 2011 QIII sampling events appears to show variability [17.7 pCi/L and 13.1 pCi/L, respectively] above and below the primary ground water standard.
7. The County needs to determine whether the facility meets the "existing installation" definition presented in Chapter 62-520.200(10), F.A.C., and qualifies for the exemption from secondary ground water standards as described in Chapter 62-520.520(1), F.A.C.

The WQER document and the December 9, 2011 letter presented the rationale that discharges from the septic tanks that were formerly located near the northwest corner of the facility contributed to the nitrate levels measured in wells MW-4, MW-4A and MW-4B. The December 9, 2011 letter also indicated that the declining concentrations reported for nitrate, sodium and chloride in samples collected from well MW-4 during sampling events conducted since the septic tanks were taken out of service during 2008 QIV supported this rationale.

However, the increasing concentrations of nitrate reported for well MW-4A during the same time interval remains a concern. Considering the general northwest direction of ground water flow indicated in the December 9, 2011 letter, the potential for impacted ground water to be leaving the property needs to be investigated. Please conduct the following activities during the routine quarterly ground water sampling event scheduled for 2012 QI:

- Conduct the routine quarterly sampling event to comply with Specific Condition #16.c., of permit #22926-003-SF [sample wells MW-2, MW-4, MW-6A, MW-8, MW-9A, MW-10 and MW-11 for analysis of the "reduced parameter list"].
- Collect samples from assessment wells MW-4A and MW-4B and piezometers MW-4C and MW-4D during the 2012 QI event for analysis of the parameters listed in Specific Condition #16.c., of permit #22926-003-SF [the "reduced parameter list"].
- Measure ground water levels **monthly** at all wells and piezometers listed in Specific Condition #15., of permit #22926-003-SF [including wells MW-2, MW-4, MW-6A, MW-8, MW-9A, MW-10 and MW-11; including piezometers MW-1, MW-7 and MW-9].
- Measure ground water levels **monthly** at assessment wells MW-2A, MW-4A and MW-4B during 2012 QI.
- Measure ground water levels **monthly** at new piezometers MW-4C and MW-4D during 2012 QI.

- Prepare ground water surface elevation contour maps for each monthly set of ground water levels measured during 2012 QI.
- Submit the results of the 2012 QI ground water sampling event, the monthly ground water level measurements, and the monthly ground water surface elevation contour maps to the Department by **April 15, 2012**.

The Department suggests that a meeting be scheduled with you and other appropriate Sumter County representatives to discuss the results of ground water sampling and ground water level measurements conducted during 2012 QI. The focus of this meeting will be to evaluate whether the ground water analyses are adequate to characterize the lateral extent of ground water impacts related to the occurrence of nitrate. Additional items of discussion will include the persistence of gross alpha in ground water samples collected from well MW-11 and whether the facility is exempt from compliance with secondary ground water standards [aluminum, iron, manganese and TDS].

Your continued assistance in this matter is appreciated. Please contact me if you have questions or comments regarding this message.

John

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Please take a few minutes to share your comments on the service you received from the department by clicking on this link Copy the url below to a web browser to complete the DEP survey:
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