

memorandum

To:

Don Connell, Fremont County SWDD

From:

Ken Schreuder, P.E., P.G.

cc:

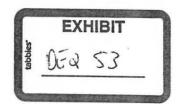
Fremont County SWDD Board

Date:

July 6, 2011

Re:

Updates for July 12, 2011 Board Meeting



The following information is provided to update the Fremont County Solid Waste Disposal District (FCSWDD) on the status of various projects that are being managed by Trihydro Corporation (Trihydro), and associated actions by the Wyoming Department of Environmental Quality (WDEQ), Solid and Hazardous Waste Division (SHWD).

Sand Draw Landfill / Permit / Project 09Y-001-002

On May 23, 2011, the WDEQ/SHWD issued a second (final) review of the operating permit renewal application submitted by Trihydro on December 23, 2010. The review included a proposed permit and a public notice for a major amendment. The proposed permit limits the use of the vertical expansion for the Original Area until December 31, 2018. The WDEQ/SHWD's second review no longer indicates that an engineered containment system (ECS) is required because the vertical expansion of the Original Area is a "new" cell/unit. However, the proposed permit includes a permit condition that requires the FCSWDD to demonstrate (by October 1, 2013) that the Original Area is not altering and will not alter groundwater, or i) cease receipt of wastes in the Original Area by December 31, 2018 and begin closure, and ii) provide a performance based design or and engineered containment system design for all units of the expansion area(s) that will receive waste after December 31, 2018. The WDEQ/SHWD's second review indicates that this permit condition is necessary because existing monitoring data for the Original Area indicates that groundwater has been altered. The FCSWDD forwarded a written response the WDEQ/SHWD's May 23, 2011 review, and requested a formal classification of groundwater below the Sand Draw Landfill, and identification of associated groundwater protection standards.

The FCSWDD previously approved Change Order No. 3 to Task Order 10-001 for additional services relative to the Sand Draw Landfill Permit. Change Order No. 4 is attached to increase the associated project completion date to January 31, 2012. Change Order No. 4 does not alter the not-to-exceed cost of this task.

On July 1, 2011, Don Connell received a request for information from the WDEQ Air Quality Division (AQD) relative to state and federal air quality reporting and permitting requirements that may apply to the Sand Draw Landfill. Due to the nature of the request, Don asked Trihydro to assist him in preparing a response as part of the existing Task Order for the Sand Draw Landfill. The associated work is in progress. The FCSWDD should be advised that air quality reporting and permitting requirements may apply to the Sand Draw Landfill. If this is the case, Trihydro has a team of air quality professionals that



Don Connell, FCSWDD July 6, 2011 Page 2

have assisted other Wyoming landfills with both state and federal air quality requirements, and these experts are available to assist the FCSWDD.

Shoshoni Landfill / Permit / Project 09Y-003-001

The operating permit renewal application for the Shoshoni Landfill was submitted on April 29, 2011, which was the target date previously agreed upon by the FCSWDD and the WDEQ/SHWD. Review comments are expected to be received by the end of July, 2011. Ken Schreuder met with Patrick Troxel on July 1, 2011 to discuss the status of his review. Mr. Troxel indicated that the review was still inprogress, but that he had not yet identified any significant issues.

Sand Draw and Shoshoni Landfills / Monitoring / Project 09Y-001-003

The 2011 second quarter monitoring events at the Sand Draw and Shoshoni Landfills were completed on April 27 and 28, and included collection and analysis of groundwater samples from both facilities. The following volatile organic compounds (VOCs) were detected at concentrations above the reporting limits in the April 2011 samples submitted to TestAmerica Laboratories, Inc. (TLI) in Arvada, Colorado:

- Shoshoni:
 - Chloroform (MCL = $80 \mu g/L$) in S-5 at 3.1 $\mu g/L$
 - $^{\circ}$ 1,1-Dichloroethene (MCL = 7 μg/L) in S-9 at 3.2 μg/L
- Sand Draw
 - Tetrachloroethene (MCL = $5 \mu g/L$ in R-20 at $1.4 \mu g/L$

A blind duplicate sample was also collected from R-20 during the April 2011 event, but analysis of the blind duplicate sample by TLI did not detect the presence of tetrachloroethene. The detection of tetrachloroethene in the April 2011 sample from R-20 was identified as a significant result by the interwell statistical analysis. As per the FCSWDD's direction on June 13, well R-20 was resampled on June 16, 2011, and split samples were sent to TLI, and Energy Laboratories, Inc. (ELI) in Casper, Wyoming. Tetrachloroethene was not detected in either of the resamples sent to TLI or ELI. The TLI qualified results for the June 16, 2011 resample of R-20 were nearly identical to TLI qualified results for the April 28, 2011 sample from R-20. Trihydro's data validation review determined that the detection of tetrachloroethene in the sample collected from well R-20 on April 28, 2011 should be qualified due to repeatability issues. Based on the resampling results, Trihydro also concluded that the detection of tetrachloroethene in the sample collected from well R-20 on April 28, 2011 should be considered an anomaly.

Submission of the monitoring reports for the April 2011 monitoring events constitutes completion of the scope of work for Trihydro project 09Y-001-003. The 2011 third quarter monitoring events at the Sand Draw and Shoshoni Landfills will be completed under Project 09Y-001-004, and are tentatively scheduled for the week of July 18. The July 2011 event will include collection of groundwater samples from the Sand Draw Landfill, and static water level gauging at the Sand Draw and Shoshoni Landfills. The 2011



Don Connell, FCSWDD July 6, 2011 Page 3

third quarter monitoring event at the Sand Draw Landfill will also include assessment and radiocarbon monitoring of the down-gradient wells. The purpose of assessment monitoring is to determine if other constituents common to municipal landfill leachate are present in groundwater. The purpose of the radiocarbon monitoring is to allow comparison of the age(s) of the groundwater down gradient of the Original Area to the age(s) of the groundwater up gradient of the Original Area. This data may help explain the hydrogeology of the facility, and the statistical differences that have been identified in the groundwater data.

Riverton Recycling Center / Design, Permitting, and Construction / Project 09Y-002-001 At the June 13, 2011 FCSWDD board meeting, concerns were raised regarding the 5H:1V slope of the access ramp on the south side of the facility. To address the requirements of the Americans with Disabilities Act (ADA), Don Connell indicated that the FCSWDD would purchase and place additional structural fill on the southern access ramp to form a 12H:1V slope, once Majors Equipment completes construction to the elevations and grades on the plans approved by the City of Riverton, and issued by Trihydro for construction. Trihydro wants to ensure that the facility is constructed in a manner that is safe for Community Entry Services (CES) employees. Due to the fact that this material was not included in the original bid schedule and project budget, Trihydro is offering to cover the cost of purchasing the additional structural fill that will be placed by the FCSWDD.

A June 16, 2011 inspection of the construction site by Trihydro noted that the required structural fill had not been placed to the required slopes around the perimeter of the building site. Additionally, information provided by Majors Equipment on June 20, 2011 indicated that the structural fill and methane venting system below the building footprint had been constructed approximately 8 inches above the grades specified in the plans. When Trihydro notified Majors Equipment that these issues needed to be addressed, Majors Equipment suspended construction activities and requested one change order to correct the structural fill elevation issue, and a second change order to provide additional structural fill around the perimeter of the building site.

On June 29, 2011, two of the three members of the FCSWDD executive board (Mike McDonald and Dick Rogers) met with representatives of Trihydro and Majors Equipment to discuss the change order requests by Majors Equipment. At the conclusion of the meeting, representatives of the FCSWDD executive board agreed to allow the existing structural fill and methane venting system to be left in place on the condition that Majors Equipment would absorb the cost of the additional structural fill required to complete the construction to the required grades and slopes, as well as additional road base on the access road in and out of the baler. (The surface of the access road in front of the recycling center will need to be elevated so that the final 12H:1V slope on the south side of the facility ties into the edge of the access road, and doesn't extend out into the traffic routes.) Majors Equipment also raised concerns regarding the quantities of structural fill specified in the original bid schedule, but agreed to proceed with construction. In consideration of the time required to review the change order requests by Majors Equipment, representatives of the FCSWDD executive board also agreed to provide Majors Equipment with



Don Connell, FCSWDD July 6, 2011 Page 4

additional time to complete the construction contract. The representatives of the FCSWDD executive board did not approve either change order request for an increase in the construction contract price.

On July 1, 2011, Trihydro issued Field Order No. 4 to document the revised construction elevations and grades, and Change Order No. 2 was approved by Mike McDonald to extend the construction schedule by ten calendar days. Trihydro also established slope stakes to facilitate placement of the required structural fill, and noted that construction activities at the site had resumed. Field Order No. 4 and Change Order No. 2 were accepted by Majors Equipment on July 6, 2011.

On July 1, 2011, Trihydro provided Don Connell with recommendations regarding Major Equipment's Application for Payment No. 1.

Trihydro and Majors Equipment are coordinating construction activities and schedules with CES. CES has indicated that they will hire a plumbing contractor to complete placement of the water and sewer lines to the appropriate locations in the finish floor so that the entire concrete floor can be placed by Majors Equipment, instead of leaving a hole in the floor for CES to address at a later date. CES has indicated that they will be responsible for the additional costs incurred by Majors Equipment to place the additional concrete in the specified floor opening.

Riverton Composting Facility / Design and Permitting / Project 09Y-002-001

Trihydro has prepared a draft permit application amendment and a storm water pollution prevention plan for the proposed composting facility. The draft documents will be forwarded to the FCSWDD and the City of Riverton for review prior to submitting them to the WDEQ/SHWD and the WDEQ/Water Quality Division (WQD) for review.

Questions and Additional Information

Please let us know if you have any questions or need additional information. You can call me on my cell phone (307-330-7737) or send me an email (<u>kschreuder@trihydro.com</u>).

Attachments

- Change Order No. 4, Task Order 10-001





memorandum

To:

Don Connell, Fremont County SWDD

From:

Ken Schreuder, P.E., P.G.

cc:

Fremont County SWDD Board

Date:

August 4, 2011

Re:

Updates for August 8, 2011 Board Meeting

The following information is provided to update the Fremont County Solid Waste Disposal District (FCSWDD) on the status of various projects that are being managed by Trihydro Corporation (Trihydro), and associated actions by the Wyoming Department of Environmental Quality (WDEQ), Solid and Hazardous Waste Division (SHWD).

Sand Draw Landfill / Permit / Project 09Y-001-002

On July 18, 2011, the WDEQ/SHWD and the FCSWDD executive board met to discuss the proposed permit and public notice. Based on the results of the meeting, the FCSWDD board directed Trihydro to publish the public notice and the proposed permit, with a notation that the FCSWDD objects to the proposed permit, and intends to file objections during the subsequent public comment period, which ends August 29, 2011. Trihydro is in the process of drafting comments for review by the FCSWDD executive board and its attorney.

The FCSWDD previously approved a Change Order for a budget increase to provide technical, regulatory, and statutory issues related to the disputed vertical expansion of the Sand Draw Landfill. Due to the protracted nature of negotiations with the WDEQ/SHWD, Trihydro is requesting another budget increase to continue supporting outstanding issues. Change Order No. 5 is attached to increase the budget for the project.

On July 1, 2011, Don Connell received a request for information from the WDEQ Air Quality Division (AQD) relative to state and federal air quality reporting and permitting requirements that may apply to the Sand Draw Landfill. Due to the nature of the request, Don asked Trihydro to assist him in preparing a response as part of the existing Task Order for the Sand Draw Landfill. The associated work is in progress, and expected to be completed on or before August 31, 2011.

Shoshoni Landfill / Permit / Project 09Y-003-001

On July 29, 2011, the WDEQ/SHWD issued its initial review of the operating permit renewal application for the Shoshoni Landfill, which was submitted on April 29, 2011. The WDEQ/SHWD's review was received August 1, 2011. The three key issues raised by the WDEQ/SHWD's review were:

 Detection of VOCs by the groundwater monitoring program indicates that the facility classification should be changed from a Type II to a Type I sanitary landfill. This classification change was



Don Connell, FCSWDD August 4, 2011 Page 2

anticipated. The only significance is that statistical analysis will be required for future monitoring events.

- The permit application proposed a prescriptive final cover system with a permeability specification of 1 x 10⁻⁶ cm/sec, based on recent laboratory testing of stockpiled soils and soils at the base of the current trench. The WDEQ/SHWD has proposed a permeability specification of 9 x 10⁻⁸ cm/sec, which is greater than the permeability specification for an engineered containment system (1 x 10⁻⁷ cm/sec). If the WDEQ/SHWD is unwilling to reconsider the proposed permeability specification, onsite soils will not be adequate to construct a prescriptive final cover system, so a synthetic or evapotranspiration final cover system will need to be considered.
- The WDEQ/SHWD has requested a schedule for reclaiming areas that received waste after 1993.
 The area in question encompasses at least 10 acres, and contains several large stockpiles that will need to be moved.

Trihydro has contacted WDEQ/SHWD and requested a meeting to discuss the noted issues, and will provide options and estimated costs at the September board meeting.

Sand Draw and Shoshoni Landfills / Monitoring / Project 09Y-001-003

The 2011 third quarter monitoring events at the Sand Draw and Shoshoni Landfills were completed the week of July 18, and included collection and analysis of groundwater samples from just the Sand Draw Landfill, including samples from down-gradient wells for Appendix B and radiocarbon dating. The radiocarbon dating results for the Sand Draw Landfill are anticipated before the end of August, and the quarterly report is expected to be completed by September.

Sand Draw and Shoshoni Landfills / Green House Gas Mandatory Reporting Rule Applicability Determinations / Project No. 09Y-004-001

Trihydro completed evaluations of the applicability of the EPA's Green House Gas Mandatory Reporting Rule (MRR) to the Shoshoni and Sand Draw Landfills. EPA's applicability tools were used to determine that the Shoshoni Landfill was not subject to the MRR. Modeling of 2010 emission rates was completed to determine that the Sand Draw Landfill is not currently subject to the MRR. However, estimates of future emission rates suggests that the Sand Draw Landfill may be subject to the MRR within 20 to 25 years, at current and predicted filling rates.

Riverton Recycling Center / Design, Permitting, and Construction / Project 09Y-002-001 Majors Equipment contacted Trihydro on August 2, 2011, to indicate that the water/sewer, structural fill, methane venting system, and concrete work was substantially complete. Trihydro completed a construction inspection on August 3, and determined that the project was substantially complete. On August 4, 2011, Trihydro provided Don Connell with recommendations regarding Major Equipment's Application for Payment No. 2. The final payment (10% retainage) will be due on or about September 22, 2011.



Don Connell, FCSWDD August 4, 2011 Page 3

Riverton Composting Facility / Design and Permitting / Project 09Y-002-001

The draft permit application amendment and a storm water pollution prevention plan for the proposed composting facility are expected to be issued to the FCSWDD and the City of Riverton for review by the end of August. Once client comments are received, final documents will be submitting to the WDEQ/SHWD and the WDEQ/Water Quality Division (WQD) for review.

Questions and Additional Information

Please let us know if you have any questions or need additional information. You can call me on my cell phone (307-330-7737) or send me an email (<u>kschreuder@trihydro.com</u>).

Attachments

- Change Order No. 5, Task Order 10-001