



Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. Petitioner, Fremont County Solid Waste Disposal District (FCSWDD), is a Solid Waste Disposal District, duly formed in 1979 and existing pursuant to W.S. 18-11-101 et. seq.

2. The Wyoming Department of Environmental Quality, Solid and Hazardous Waste Division, (DEQ) among other things, regulates and permits solid waste disposal facilities pursuant to W.S. 35-11-101 et. seq.

3. This matter involves a Petition to review a proposed operating permit and the objection to the procedure involved and to certain permit conditions proposed to be included in the permit.

4. The Environmental Quality Council (EQC) has jurisdiction to hear this matter pursuant to W.S. 35-11-112, W.S. 16-3-101 et. seq; and the Rules and Regulations of the Wyoming Department of Environmental Quality.

5. FCSWDD operates 4 landfills and 11 transfer stations located within Fremont County, Wyoming.
6. One of the landfills is designated as the Sand Draw Landfill and is the landfill at issue in this matter.
7. The Sand Draw Landfill was first established in 1982 and began receiving waste shortly thereafter.
8. The Sand Draw Landfill is operated under one permit, but is divided into two separate areas, an 80 acre area that currently receives waste and a 137 acre expansion area that is designated to receive waste upon the 80 acre area reaching capacity.
9. The current permit application is primarily for the 80 acre area and addresses the expansion area in a conceptual manner only.
10. The Sand Draw Landfill last received a permit for operation on October 31, 1995.

11. In 1999 FCSWDD implemented a groundwater monitoring system at the Sand Draw Landfill.

12. In 2000 there was a rise in the water level in the monitor well designated as R-8, which well is located on the edge of the expansion area and is approximately 1000 feet from the 80 acre area.

13. Due to the rise in water level in well R-8 further investigation was necessary and the FCSWDD sought alternatives to how or if waste would be disposed of in the expansion area.

17. Upon investigation in the expansion area it was also determined that a cultural site was located in the expansion area and had to be cleared prior to the disposal of waste in that area.

18. As a result of the need for further investigations and to clear the cultural site, various extensions of the permit for the Sand Draw Landfill were granted by the DEQ, with the last extension expiring on May 1, 2004.

19. In 2001 and 2002 the DEQ and FCSWDD discussed the use of vertical expansion in the original 80 acre area.

20. On January 18, 2002 the DEQ authorized vertical expansion in the original 80 acre area.

21. Vertical expansion involves disposal of waste on top of existing waste and above the ground level.

22. In 2002 the DEQ anticipated that the use of vertical expansion in the original 80 acre area would add 10 to 14 years to the site life capacity and stated that they desired to maximize the vertical expansion capacity.

23. On March 17, 2003 the FCSWDD submitted a work plan for the original 80 acre area utilizing vertical expansion that planned for a closure date of December 31, 2018, the date when the area would reach capacity.

24. That at the time of the March 17, 2003 letter FCSWDD used a loose fill method of waste disposal, whereby the area was to be walled with straw bales

and loose filled waste placed in cells and compacted.

25. On August 9, 2000 the FCSWDD projected a site life capacity of 31 years.

26. With the rise in water level in well R-8 and the discovery of the cultural site the site life capacity was reduced on November 9, 2001 to 2.8 years.

27. On September 3, 2003 the site life capacity was further reduced to 0.3 years.

28. After vertical expansion was authorized the site life capacity was increased to the end of 2018.

29. In 2004-2005 the FCSWDD converted to a baler system of disposal of waste in which waste was compacted in a baler, bound by metal straps and then placed in the Sand Draw Landfill.

30. The baler system increased the capacity of the landfill beyond the 2018 closure date envisioned in 2003.

31. On September 30, 2004 the FCSWDD anticipated that with the implementation of a baler system, the site life capacity for the 80 acre area of the Sand Draw Landfill would increase to 22 years.

32. In 2004 the FCSWDD also began to question the nature and extent of the groundwater at the Sand Draw Landfill, and specifically began to investigate whether the groundwater encountered by the monitor wells was part of an aquifer or were perched bodies of water that did not recharge.

33. On October 26, 2007 the FCSWDD projected that the original 80 acres of the Sand Draw Landfill had a capacity of 26.3 years.

34. On September 18, 2007 the DEQ tendered a proposed permit to the FCSWDD and prepared a public notice that stated that the site life capacity was 20 years.

35. On October 28, 2008 the DEQ issued a notice of violation for the Sand Draw Landfill, to which the FCSWDD did not request a hearing.

36. On August 24, 2009 the FCSWDD projected that the original 80 acres of the Sand Draw Landfill had a capacity of 31 years.

37. On September 30, 2009 the FCSWDD received notice from its engineers that Volatile Organic Compounds (VOC) was detected in 2 wells.

38. The VOCs detected were acetone, which is a common solvent used in cleaning of the laboratory equipment, and Trichlorofluoromethane.

39. The VOCs were at estimated levels as there was a detection noted, but it was below the reporting level and thus was estimated at 50% of that reporting level.

40. On September 30, 2009 the FCSWDD's engineer rendered his opinion that the detections were the result of laboratory error.

41. On February 26, 2010 the DEQ filed a legal action in the First Judicial District Court against the FCSWDD alleging that the FCSWDD was operating the Sand Draw Landfill without a permit.



42. On September 28, 2010 the FCSWDD projected that the original 80 acres of the Sand Draw Landfill had a capacity of 26 years.

43. On September 30, 2010 the DEQ and FCSWDD thereafter entered into a consent decree which required the FCSWDD to submit a permit application by December 31, 2010.

44. On October 28, 2010 the DEQ sent a letter to the FCSWDD in which it proposed that disposal in the original 80 acres be allowed through vertical expansion until January 1, 2028.

45. On December 23, 2010 the FCSWDD submitted its application for a renewal operating permit to the DEQ.

46. In Section 4.8 of the permit application the FCSWDD's engineer conducted an evaluation of the groundwater quality and determined that the classification and only appropriate use was for industrial use.

47. The DEQ has not classified the groundwater nor set groundwater

protection standards, but has committed to doing so by January 1, 2013.

48. In Section 5.5 of the permit application the FCSWDD's engineer conducted an evaluation of the groundwater and potential impacts to the surface and groundwater.

49. In Section 5.5 of the permit application the FCSWDD's engineer concluded that the body of evidence summarized above indicates that the historical operation of the Sand Draw Landfill has not adversely affected the groundwater below the facility, and that the design, operating and closure procedures described in this document will limit the potential for future adverse impacts to develop.

50. Section 5.4.1 of the Permit Application indicated that the 80 acre site would reach capacity in the year 2037.

51. Included in the permit application were various appendices with information relied upon by the FCSWDD's engineer in completing the permit application.

52. Appendices V is a report entitled Compartmentalization of Ground Water at the Sand Draw #2 Landfill Site: Assessing Independent and Multidisciplinary Approaches by Dr. Donald I. Siegel, Ph.D.

53. Appendices Y is a March 23, 2010 follow up letter from Dr. Donald I. Siegel, Ph.D to the above report.

54. Dr. Donald I. Siegel is not a Wyoming registered professional engineer or geologist.

55. Since the submission of the permit renewal application there have been 6 additional detections of VOCs in monitor wells. Of those 6 detections, 5 were below the reporting limit and were merely estimates.

56. The one detection of a VOC above the reporting level was submitted in a split sample, with one sample indicating the VOC and the other not detecting it.

57. A resample of the well that the detection was made from did not detect the presence of the VOC.

58. Due to the above split sample and retesting it is questionable if the VOC detected was present in the sampled groundwater.

59. It is also questionable if the VOCs exist in the groundwater or are the result of the testing process.

60. On March 25, 2011 the DEQ issued its first review of the Permit Renewal Application.

61. Section 1.1 of the Permit review indicated that all material not signed and stamped by a Wyoming Professional Engineer or Geologist, including Appendices V and Y, had to be removed from the permit application.

62. Section 4.4 of the Permit review determined that vertical expansion beyond December 31, 2018 constituted a new cell/unit and would require an engineered containment system between the existing waste and waste to be placed above it in vertical expansion.

63. On April 11, 2011 the FCSWDD submitted an objection to the Permit

review on the basis that there is no regulatory or statutory authority to make the determination that vertical expansion of disposal above waste constitutes a new cell.

65. No formal response was received by the FCSWDD prior to what it perceived as an appeal deadline and the FCSWDD filed a Petition for review with the EQC.

66. On May 17, 2011 the DEQ issued a final permit review that removed the determination that the vertical expansion would constitute a new cell/unit.

67. On the basis of the final permit review the EQC Petition was dismissed without prejudice as moot.

68. Section 1.1 of the final permit review indicated that all material not signed and stamped by a Wyoming Professional Engineer or Geologist, including Appendices V and Y, had to be removed from the permit application

69. Section 3.7 of the final permit review made the determination that the groundwater quality at the landfill has been/is being altered.

70. No scientific basis for the DEQ determination that groundwater quality has been/is being altered, other than the above suspect detections of VOCs, was cited for the conclusion.

71. Section 4.4 of the final permit review determined that based upon the letter from the FCSWDD dated March 17, 2003, that the FCSWDD must demonstrate that the facility is not altering and will not alter the groundwater by October 1, 2013 or cease receiving waste by December 31, 2018.

72. The FCSWDD requested an opportunity to submit additional information or an amended permit application to the DEQ.

73. The DEQ, on July 1, 2011, disallowed the request of the FCSWDD and ordered that the FCSWDD publish the proposed permit that it had submitted to the FCSWDD.

74. In order to comply with the DEQ rules and regulations and the statutes the FCSWDD published notice of the permit.

75. On August 25, 2011 the FCSWDD filed a written objection to the proposed permit and requested a hearing before the EQC.

76. The basis of the objection was that proper procedure for comment by the FCSWDD was not followed after issuance of the final permit review, that permit condition #1 is not in accordance with the law, and that permit condition #3 is arbitrary and capricious, an abuse of discretion and not in accordance with the law.

77. Permit condition #1 states that the operator of this facility shall remove all documents from the permit application, including but not limited to appendices V and Y, which have not been signed and stamped by a Wyoming Professional Engineer (P.E.) or Professional Geologist (P.G.) as required by Chapter 2, Section 2(b)(ii) of the Solid Waste Rules and Regulations.

78. Chapter 2, Section 2(b)(ii) of the Solid Waste Rules and Regulations provides that all permit applications shall be prepared under the supervision of a professional engineer registered in the State of Wyoming. All permit application

forms shall be stamped, signed and dated by a professional engineer. In addition, all portions of the permit application which require geological services or work shall be stamped, signed and dated by a professional geologist.

79. The application was stamped, signed and dated by Ken Schreuder, a Wyoming registered professional engineer and professional geologist. The certification by Mr. Schreuder included the clause that this certification is limited to work completed by Trihydro Corporation.

~~80. W.S. 33-41-117(a)(vi) exempts from the State of Wyoming Geology licensing requirement persons engaged in teaching or research in the physical or natural sciences.~~

81. W.S. 33-41-117(a)(xi) exempts from the State of Wyoming Geology licensing requirement individuals engaged in drafting, sampling, sample preparation, and routine laboratory work in which the elements of initiative, scientific judgment and decision making are either lacking or not required, including the other activities



which do not use scientific methods to process and interpret geologic data.

82. In the use of appendices V and Y the FCSWDD engineer and geologist, Ken Schreuder, used the data, laboratory work and sampling results contained therein to form his own opinions and did not rely upon the opinions of Dr. Donald I. Siegel.

83. Permit condition #3 provides that no later than October 13, 2013, the operator of this facility shall demonstrate that the facility is not altering and will not alter groundwater. If the operator fails to timely make such a demonstration, then (i) the original eighty (80) acres shall cease receipt of waste no later than December 31, 2018 and promptly begin closure activities, and (ii) the lifetime renewal permit shall include either a performance based design or an engineered containment system design for all units of the expansion area(s) that will receive waste after December 31, 2018.

84. Chapter 2, Section 5(x) of the Solid Waste Rules and Regulations

provides that Solid Waste disposal facilities shall not be allowed to alter groundwater quality, as determined by groundwater monitoring.

~~85. There is a material difference between altering groundwater and altering groundwater quality.~~

86. The DEQ has not classified the groundwater at the Sand Draw facility nor set Groundwater Protection Standards for the facility, but the DEQ has committed to do so prior to January 1, 2013.

87. The portion of permit condition #3 pertaining to altering groundwater is not in accordance with the Solid Waste Rules and Regulations.

88. Chapter 2, Section 2(b)(x)(3) of the Solid Waste Rules and Regulations requires that the application for a permit renewal contain an evaluation of the facility's potential to impact surface and groundwater quality based on the design and the hydrogeologic information.

~~89. The permit condition #3 requires a demonstration that the facility will~~

~~not alter the groundwater, as opposed to the Rules and Regulations requirement that there be an evaluation of the potential to impact groundwater quality.~~

~~90. Even with the use of an engineered containment system a showing would never be able to be made that a facility will not alter the groundwater, due to the fact that engineered containment systems can leak.~~

91. The portion of permit condition #3 pertaining to the showing that the facility will not alter the groundwater is not in accordance with the Solid Waste Rules and Regulations.

92. Permit review section 3.7 makes the statement that groundwater monitoring data indicates groundwater quality at the Sand Draw Landfill has been/is being altered, but does not provide the scientific basis for such decision.

93. There was no scientific basis or rationale for the October 1, 2013 date that the demonstration in permit condition #3 must be completed.

94. The DEQ has suggested various dates for closure of the original eighty

(80) area.

95. In 2002 the DEQ suggested a date of 2012-2016.

96. In 2007 the DEQ suggested a date of 2027.

97. In 2010 the DEQ suggested a date of 2028.

98. The permit application provides for a date of 2037.

99. The FCSWDD capacity audit of October 10, 2011 indicates a capacity in the original 80 acres area until 2037.

100. The final permit review of May of 2011 and Permit condition #3 issued on July 1, 2011 contains a closure date of December 31, 2018 for the original 80 acres.

101. The date of December 31, 2018 is based upon a letter submitted by the FCSWDD on March 17, 2003.

102. The date of December 31, 2018 submitted by the FCSWDD was based upon the loose fill operation that was used by the FCSWDD at the time.

103. Since the March 17, 2003 letter from the FCSWDD the District has converted to a bale filled disposal system.

104. Bale filled systems, in comparison to loose fill systems, allow for more capacity in the same area due to compaction and allow for more stable placement of bales, thus increasing the potential vertical capacity.

105. The December 31, 2018 date proposed by the FCSWDD is not applicable and not relevant to the current operations of the Sand Draw Landfill.

106. The closure plan in the permit renewal application is based upon a closure date of 2037 in the original eighty (80) acres, and includes a phased closure plan.

#### CONCLUSIONS OF LAW

Based upon the above stated Findings of Fact the Wyoming Environmental Quality Council makes the following conclusions of law:

1. The Environmental Quality Council (EQC) has jurisdiction to hear this

matter pursuant to W.S. 35-11-112, W.S. 16-3-101 et. seq; and the Rules and Regulations of the Wyoming Department of Environmental Quality.

2. The FCSWDD's engineer and geologist is allowed to rely upon data and information contained in Appendices V and Y of the renewal permit application pursuant to W.S. 33-41-117(a)(vi)(xi).

3. The FCSWDD's engineer and geologist is not allowed to rely upon the opinions stated in Appendices V and Y of the renewal permit application pursuant to the Solid Waste Rules and Regulations Chapter 2, Section 2(b)(ii).

4. The District has shown by a preponderance of the evidence that permit condition #3 is not in accordance with the law in requiring a demonstration that the facility is not altering the groundwater, in that Chapter 2, Section 5(x) prohibits a facility from altering the groundwater quality.

5. The District has shown by a preponderance of the evidence that permit condition #3 is not in accordance with the law in requiring a demonstration that the

facility will not alter the groundwater, in that Chapter 2, Section 2(b)(x)(3) requires an evaluation of the facility's potential to impact the surface and groundwater quality.

6. The District has shown by a preponderance of the evidence that there was no scientific basis for the date of October 1, 2013 to make the demonstration and as such the same is arbitrary, capricious and an abuse of discretion.

7. The District has shown by a preponderance of the evidence that the requirement in permit condition #3 that failing such demonstration the original eighty (80) acres must cease receiving waste by December 31, 2018 is based upon a prior date suggested in 2003 under a different disposal method in the facility and is contradictory to other suggested dates by the DEQ and is without a

logical basis, and as such is arbitrary, capricious and an abuse of discretion.

IT IS THEREFORE ORDERED that Permit Condition #1 shall be amended to provide that the Fremont County Solid Waste Disposal District shall redact all material from appendices V and Y of the renewal permit application other than data and information relied upon by their engineer and geologist in forming his opinion.

IT IS FURTHER ORDERED that Permit Condition #3 shall be deleted.

Dated this 9 day of March, 2012.

  
~~Rich Fairservis, Presiding Officer~~ *Tim Feltner*  
Environmental Quality Council



## CERTIFICATE OF SERVICE

I, Kim Waring, certify that at Cheyenne, Wyoming, on the 12th day of March, 2012, I served a copy of the foregoing FINDINGS OF FACT AND CONCLUSIONS OF LAW by electronic mail to the following:

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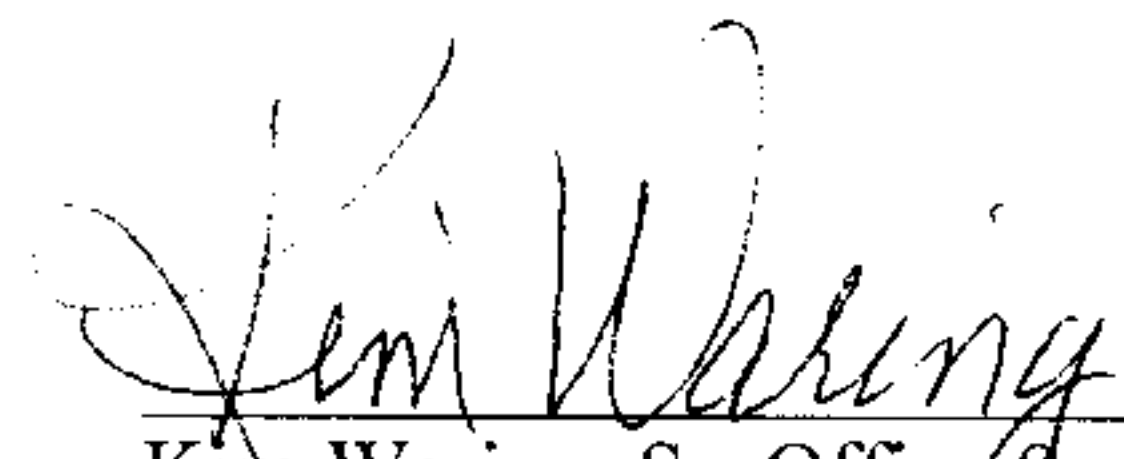
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