

STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT



IN THE MATTER OF THE)
APPLICATION OF S & R SEPTIC)
FOR THE RENEWAL OF)
A SEPTAGE DISPOSAL FACILITY)
DISCHARGE PERMIT, DP-465)

GWB 19-28 (P)

HEARING OFFICER REPORT

Introduction

S & R Septic (Applicant) seeks the renewal of its discharge permit for the planned discharge of up to 9,857 gallons per day of domestic septage into thirteen unlined disposal cells totaling 2.31 acres on a rotational basis; and for the planned discharge of up to 8,333 gallons per month of liquid/semi-solid/solid domestic-wastewater-treatment-facility and/or package-treatment-plant sludge to three cells totaling .46 acres on a rotational basis. The property is located approximately three miles northwest of Taos on the north side of Highway 64, in Taos County, New Mexico.

The New Mexico Environment Department (NMED) Ground Water Bureau (Bureau) supports the renewal of the permit with conditions necessary to protect public health and welfare and the environment. Several members of the community urged denial of the application based on Applicant's history of non-compliance, odor, vectors, airborne pathogens, nearby development, and potential contamination of ground water, among other things.

The matter was heard on October 16 and October 21, 2019 in Taos, New Mexico. The Bureau was represented by Owen Johnson of NMED's Office of General Counsel, and the Bureau's position was presented by domestic waste team leader Jason Herman. Those present

on behalf of the Applicant included Counsel Pete Domenici, Jr., expert geological engineer Jay Snyder, well driller Jim McCann, and the owner Steve Rael.

Other parties in the matter included El Prado Water and Sanitation District (District), represented by James C. Brockmann with original District board member John Painter; Jerome B. Hansen, a retired petroleum geologist; and Dion Smith, a board member of the Stagecoach Hills Neighborhood Association.

Many members of the public participated in questioning and testimony as well; those who offered non-technical public comment included Phillip Tafoya, Mary Lane Leslie, Norbert Mondragon, Lois Rodin, Cherylin Atcitty, Douglas Daubert, and Bruce Popham.

The administrative record includes, *inter alia*, the permit application with attachments, and the rest of the Bureau's facility file for DP-465; notices of hearing in English and in Spanish; notices of intent to present technical testimony from the Applicant, the Bureau, the District, Mr. Hansen, and Mr. Smith; exhibits and PowerPoint presentations; the sign-in sheets; hearing transcript in two volumes; post-hearing submittals from all parties except Mr. Smith; a few motions; two procedural orders; an Index to the Bureau's Administrative Record, and this Report.

The hearing was conducted in accordance with the New Mexico Water Quality Control Commission Regulations, 20 NMAC 6.2.3110, and the Department's Permitting Procedures, 20.1.4 NMAC. The hearing lasted approximately seven hours over the course of the first evening, and two hours more on the morning of the second day.

Every participant was allowed full opportunity to call witnesses, present testimony and other evidence, and cross-examine witnesses called by any other participant. The hearing was recorded by the Hearing Clerk and transcribed by Rebecca Fella of Williams and Associates, court

reporter. The record was left open for the purpose of submitting proposed findings of fact and conclusions of law, as well as legal argument on a motion for collateral estoppel offered by the Applicant during the hearing (later withdrawn).

Procedural History

DP-465 was originally issued in 1987 and renewed in 1992, 1999, 2003, and 2012.

DP-465 expired without the submission of a renewal application on December 27, 2017.

The Bureau received Applicant's current renewal application on February 22, 2018.

The Bureau issued draft DP-465 on May 24, 2019.

During the comment period on the draft permit, 10 members of the public requested a hearing.

On October 16 and 21, 2019, a public hearing on the Application was held in Taos, New Mexico.

[See below in the proposed findings of fact for additional procedural history. Mr. Herman's written direct history includes a detailed permit and regulatory history.]

Applicable Law

New Mexico Water Quality Act, NMSA 1978, Sections 74-6-1 to 74-6-17

New Mexico Water Quality Control Regulations, 20.6.2 NMAC

New Mexico Environment Department Permitting Procedures, 20.1.4 NMAC

Recommendation and Discussion

Based on the entire record, I recommend that the discharge permit be issued in the form of the Bureau's May 24, 2019 draft, subject to the conditions set out in the Bureau's post-hearing submittal, Attachment 1, as concurred in by Applicant and the District. I further recommend that the Bureau make certain key documents related to the discharge permit more easily available to

the surrounding community, either on the Department's webpage or by a hard copy in the Taos Field Office, or both.

Generally, although the parties opposing the issuance of the discharge permit in its draft form were active and thoughtful participants in the hearing process, they raised a number of concerns that are beyond the reach of the regulatory scheme under which discharge permits are issued by the Department. Many of these issues are best addressed by local ordinances adopted around planning and zoning to avoid incompatible land uses, or the prevention of nuisance.

They do point to language in the applicable regulations meant to preclude the issuance of a discharge permit posing a "hazard to public health" or "undue risk to property," neither of which is apt here. "Hazard to public health" is narrowly defined in the regulations to mean water exceeding express numerical standards for certain contaminants or toxic pollutants. See Section 20.6.2.7.AA NMAC. "Undue risk to property" has not, over the forty years of the ground water permitting program, been accepted by this Department or the Water Quality Control Commission to mean that "quality of life" concerns like odor or mosquitoes would result in permit denial. I respectfully disagree with their assertion that the Environmental Improvement Act requires the Department to address air quality, vectors, and nuisance as part of the ground water permitting process. That said, the permit includes a number of operational conditions which, if complied with, will make the facility less of a potential nuisance, including adding lime to the septage, which reduces vector attraction.

What follows are proposed findings of fact and conclusions of law drawn primarily from those submitted by the Bureau, with some additional findings and conclusions prompted by the

post-hearing submittals of Applicant and the District. Certain special permit conditions proposed by parties but not included below include:

- a. A requirement that Applicant retain a consultant of Mr. Snyder's qualifications to assure permit compliance in the future. This was proposed by the District but not included for an apparent lack of authority to order such a requirement.
- b. A condition that Applicant is required to discharge septage only at the Taos Municipal Wastewater Treatment facility. This was proposed by Mr. Hansen but not included, again, for an apparent lack of authority: the Act and regulations require an evaluation of the renewal application as submitted.
- c. A condition that the term of the permit be shortened to account for the time during which Applicant has been operating without a valid permit, such that it would expire on December 26, 2022. This was proposed by Mr. Hansen but not included, again, for an apparent lack of authority: the Act and regulations require that a discharge permit be issued for a term of five years.

Applicant's history of permit violations and its failure to timely apply for permit renewal are certainly troubling. The concerns expressed by Mr. Hansen and the Stagecoach Neighborhood Association about Applicant's operations and the Bureau's uneven history of enforcement do have a substantial basis. Mr. Herman testified that the Bureau's staffing will soon be more robust, and I recommend that the geohydrological evaluation required in the discharge permit be completed as soon as practicable.

Several commenters noted the residential and other development that has occurred in the vicinity of the facility since the original permit was issued in 1987. Several noted that

Applicant is the only one of 12 septage haulers in the Taos area which does not dispose of its waste at the municipal wastewater treatment plant, and encouraged the Department to discontinue the approval of open pit disposal altogether. The Bureau is implementing existing ground water regulations. If the disposal of human waste into unlined open pits is to be discontinued in New Mexico, it is the Water Quality Control Commission or the New Mexico legislature where that action would be taken.

Finally, although in its post-hearing submittal Applicant withdrew its motion for collateral estoppel, the Bureau, in its post-hearing submittal, set out the basis on which that motion would have been denied.

Attachment 1 to the Bureau's post-hearing submittal has been attached to this report as well for ease of reference. It reflects the two permit conditions negotiated among the Applicant, the Bureau, and the District.

PROPOSED FINDINGS OF FACT

A. The Facility

1. S & R Septic (Applicant) is a domestic-septage and sludge disposal company originally permitted in 1987. Since then, it has gone through several permit renewals, the most recent of which was in December 2012. The 2012 permit allowed discharge of up to 9,857 gallons per day (not to exceed 69,000 gallons per week) of domestic septage to 13 unlined disposal cells totaling 2.31 acres on a rotational basis. It also allowed discharge of up to 8,333 gallons per month (not to exceed 100,000 gallons per year) of liquid/semi-solid/solid domestic-wastewater-treatment-facility and/or package-treatment-plant sludge to three cells totaling

.46 acres on a rotational basis. The Applicant has applied to retain those limits. **AR Doc. 4.**

2. When measured on a *per-acre* basis, the allowable discharge is 4,267 gallons per day. That is more than any other active septage facility in New Mexico, excepting Barry's Septage (DP-1878), the elevated limit for which is effectively nullified by an additional restriction limiting it to 200 pounds of total nitrogen per year. **NMED Exh. 8; Testimony Vol II, pg. 326.**
3. The facility is located on Tune Drive approximately three miles northwest of Taos, NM on the north side of Highway 64.
4. Contaminants of concern to the Department are nitrogen species and pathogens in particular, but may also include other chemicals such as formaldehyde due to varying materials and strategies associated with septic-tank use. **NMED Exh. 1, pgs. 6-7.**

B. History of the Permit

5. The Department first issued a permit to the Applicant on April 7, 1987, authorizing the discharge of 12,000 gallons per day of septage into shallow ponds.
6. The Department approved an increase to 20,000 gallons per day on July 25, 1990.
7. The Department renewed the permit on June 10, 1992.
8. Simultaneous with a decrease in discharge volume to 10,000 gallons per day and a transition from shallow ponds to 12 shallow disposal cells, the permit was renewed on July 28, 1999.

9. A public hearing on the Applicant's next renewal application was held October 8, 2002. The renewed permit was issued May 22, 2003.
10. A joint NMED and Environmental Protection Agency inspection found operational deficiencies in March 2005 and proposed a \$32,000 penalty that was reduced to \$1,800 in a May 2007 consent agreement.
11. On April 11, 2008, the Department de-authorized grease-trap and carwash-grit waste disposal at the facility.
12. The Department renewed the permit on December 27, 2012.
13. The 2012 permit expired without submission of a renewal application on December 27, 2017.
14. The Department received the renewal application presently at issue on February 22, 2018. **AR Doc. 4.**
15. On September 27, 2018, a Department field technician witnessed an S&R Septic pumper truck pumping what appeared to be grease-trap waste from a restaurant in Taos. The following day, Applicant refused entry by inspectors into the facility. Three days later, on October 1, inspectors gained access and gathered samples that tested 100 times greater for total petroleum hydrocarbons and fats/oils/grease than similar facilities.

C. Geology and Hydrology of the Site

16. The facility is located on the Costilla Plains between the Taos Plateau and the Sangre de Cristo Mountains. In this area, groundwater is typically found in the alluvial sediments, which consist of deposits from the Holocene, early Quaternary

and late Tertiary Ages known, collectively, as the Santa Fe Group. That Group, in turn, is interbedded with clay deposits and volcanic rocks such as servilleta basalt.

NMED Exh. 1, p. 6.

17. The facility is also within the Los Cordovas Fault Zone, which has a north-south orientation. There is fracturing of bedrock and, in general, the fractures are not cemented. **NMED Exh. 1, p. 6, referencing NMED Exhs. 3, 4 and 5.**
18. Based on a well located one mile away, the New Mexico State Engineer (OSE) recorded water depth at approximately 500 feet. Records are insufficient regarding perched groundwater. **NMED Exh. 1, p. 6.**
19. The OSE well log for the Waste Management of New Mexico well profiled 102 feet of brown gravel and clay from eight to 110 feet below surface. The Mark D. Miller well log profiled 89 feet of clay and gravel from 10 to 99 feet below surface. **Exh. Snyder 1, part 2.**
20. The 1999 Shomaker Report estimated nitrogen migration below the Applicant's facility at 15-30 feet after 12 years of operation. **AR Doc. 1.**
21. Modeling in the 2000 Duke Engineering Report predicts said migration of nitrogen contaminants below the facility to have reached depths of at least 70 feet after 32 years of operation. **AR Doc. 2; NMED Exh. 1, pg. 6.**
22. Until Applicant's environmental consultant performed a site investigation in October of 2019, no follow-up studies had been performed at the facility regarding vertical migration of contaminants since the Shomaker/Duke reports. **NMED Exh. 1, p. 7.**

23. EA Engineering describes the 2019 investigation as “limited.” **Exh. Snyder 1, p. 1.** Near-surface gravels prevented air-rotary drilling beyond 35 feet below ground surface. Three grab samples and one split-spoon sample were obtained. **Exh. Snyder 1, part 4.**

D. Public Notice and Requests for Hearing

24. Pursuant to 20.6.2.3108(A) NMAC, Applicant undertook the initial public-notice responsibilities, making its renewal application known, on June 22, 2018. **AR Doc. 10.**
25. Pursuant to 20.6.2.3108(J) NMAC, the comment period for the draft permit began May 24, 2019, following publication in the Taos News and Albuquerque Journal, as well as mailing to all interested parties. **AR Docs 38, 39.**
26. The Applicant did not submit any comments, but more than 10 members of the public requested a hearing. These included individual residents, a neighborhood association, adjacent business owners, and a water and sanitation district. **AR Docs. 40-53.**
27. The Public Involvement Plan was duly revised, **AR Doc. 54**, and notice of a public hearing – in both English and Spanish – was published in the Albuquerque Journal and Santa Fe New Mexican on or before September 15, 2019. **AR Docs. 55, 56.**
28. When the initial evening of testimony ran long, notice of a continuance was sent to all interested parties informing them of the new day, time and location.

E. The Hearing

29. A hearing was held October 16, 2019, at the Taos County Commission Chambers beginning at 5:30 p.m. Exceeding the available time, it was continued on October 21, 2019, at the Taos Civic Plaza and Convention Center beginning at 10 a.m.
30. In addition to the Applicant and the Department, three others made entries of appearance and/or submitted notices to present technical information. These were the El Prado Water and Sanitation District, Jerome Hansen and Dion Smith.
31. In total, 14 people testified or delivered verbal comment. The Applicant presented three witnesses – Jay Snyder, Jim McCann and Steve Rael – and the Department presented one: Jason Herman. Of the public comments, eight generally opposed the permit or sought additional investigation before issuance while two generally supported the permit.
32. Jay Snyder has bachelor's degrees in geology and meteorology, and master's degrees in geophysics and geological engineering. Mr. Snyder is a licensed professional engineer in New Mexico, a licensed geologist in 14 states, certified as a hydrogeologist by the state of California and as a professional hydrologist by the American Institute of Hydrology. Mr. Snyder has done contaminant study for 30 years, site investigations and characterization, all the way to cleanup and closure. Mr. Snyder has been qualified as an expert witness with the Water Quality Control Commission and in NMED public hearings. Mr. Snyder works for EPA Regions 6 and 9, and has worked directly for the state of New Mexico, responsible parties,

and permittees. Mr. Snyder was accepted as an expert witness in geology, hydrogeology and geologic engineering. **Testimony Vol. 1, pgs. 88-89, 97.**

33. Jim McCann has been licensed as a well driller in New Mexico for at least four years and has drilled hundreds of wells in the state, including wells near the Applicant's site. He is also licensed in other states. **Testimony Vol. 1, pg. 165.**
34. Steve Rael is the owner of Applicant S & R Septic.
35. Jason Herman is the domestic waste team leader for the Bureau's Pollution Prevention Section, has worked for the Bureau for two years, and has written thirty ground water permits. He worked in ground water treatment and regulatory industries in Florida for more than eight years. Mr. Herman has a bachelor's degree in environmental planning and design, a master's degree in community regional planning, and a second master's degree in water resources management. **Testimony Vol. 2, pgs. 314-316.**
36. Jerome Hansen, a trained geologist and member of the Stagecoach Neighborhood Association, made extensive use of Google-Earth slides depicting the facility over 2-3 decades. He expressed concern about permeability of the underlying rock and potential contamination of groundwater. **Testimony Vol. 1, pg. 20.**
37. Phillip Tafoya testified to the value of the service provided by the Applicant and asked how the hearing was initiated. The hearing officer provided a response to his question. **Testimony Vol. 1, pg. 178.** Tafoya favored renewal of the permit.
38. Mary Lane Leslie spoke on behalf of the Stagecoach Neighborhood Association. She testified that other septage haulers in the area utilize the municipal

wastewater-treatment plant for disposal rather than exposed cells. She asserted that pathogens in the septage are dangerous to human health and asked that permit conditions address vectors and potential airborne contaminants. She worried that the Department lacks adequate resources to oversee and monitor the facility based on historical violations of the permit. She ultimately asked that the Applicant be required to use the wastewater-treatment plant. **Testimony Vol. I, pgs. 183-197.**

39. Norbert Mondragon disfavored renewal of the permit due in part to reservations about the Department's lack of manpower and reliance on self-reporting by the facility. He also expressed frustration with the narrow focus on groundwater when he considers airborne pathogens similarly concerning. **Testimony Vol. I, pgs. 204-06.**
40. Dion Smith, a member of the Stagecoach Hills Neighborhood Association, also objected to airborne contaminants as a potential cause of disease. He has received complaints about odors and conducted research on the health effects of breathing sewage fumes. He listed hydrogen sulfide, carbon dioxide, methane and ammonia as gases typically associated with septage. He expressed concern about the Department's lack of manpower for enforcement and encouraged disposal at the wastewater-treatment plant. **Testimony Vol. I, pgs. 267-273.**
41. John Painter spoke on behalf of the El Prado Water and Sanitation District, located north of Taos. He holds a level-4 certification and operator's license from the Department's drinking water bureau. The District relies on several production

wells, including one near the Applicant's facility. While Painter did not think it is currently impacted, he expressed concern about the future and stressed the need for additional monitoring. He encouraged drilling at least one borehole at the facility and ensuring that the Applicant does not dispose of fats/oils/grease or hydrocarbons at the facility. **Testimony Vol. II, pg. 303-304.**

42. Lois Rodin discussed the functioning of sewage-cell systems and what distinguishes an effective one from a poor one. She felt the Applicant could dispose at the wastewater-treatment plant. **Testimony Vol. II, pgs. 311-312.**
43. Cherylin Atcitty is the environmental program manager for the Taos Pueblo Environmental Office. She expressed concern that renewal of the permit could harm subsurface water and, by extension, wildlife, such as bison herds. **Testimony Vol. II, pg. 313.**
44. Douglas Daubert read a statement from prior witness Jerome Hansen, who could not appear for the second day of proceedings. Through Daubert, Hansen stated that the Applicant's counsel failed to serve him with a significant amount of information, which resulted in his being caught off guard during cross-examination. **Testimony Vol. II, pg. 346.** For his part, Daubert was uncomfortable with a proposed reduction in boreholes from five to one and did not think it could adequately test for off-site seepage. He also emphasized the Applicant's gaps in monitoring reports, encouraged disposal at the wastewater-treatment plant, and called for denial of the permit. He also submitted a newspaper article about

Applicant's operations from 1995 that drew an objection on the grounds of hearsay. **Testimony Vol. II, pg. 348-351.**

45. Bruce Popham, who worked closely with the Florida environment department, related his surprise at discovering open-pit dumping upon his relocation to Taos. He considers the facility a risk to the well fields. **Testimony Vol. II, pg. 354.**

F. Negotiation of Two Permit Conditions

46. The Bureau met with the Applicant on August 13, 2019 and with El Prado Water and Sanitation District on August 20, 2019. Both meetings focused on discussion and information gathering but no commitments to alter the draft permit.
47. On October 21, 2019, just prior to commencing the continued hearing, the Applicant, the Bureau, and El Prado verbally negotiated modifications to Conditions 21 and 22 of the permit. These were first summarized in the testimony of Jason Herman, **Testimony Vol. II, pgs. 319-323**, and are more formally captured in **Attachment 1**.
48. In their post-hearing submittals, Applicant and the District both indicated that they support the Bureau's proposed findings and conclusions, and Conditions 21 and 22 as reflected in Bureau's Attachment 1.

G. Permit Conditions

49. The conditions in the draft permit are divided into five subsections with a total of 51 conditions.
50. Features of the operational plan include requiring 24-inch berms around the facility and a stormwater-diversion-bar trench (at least six inches deep) at the

facility entrance. Fencing and a locking gate will surround the entire facility to control access by animals and the public. Signs shall be posted every 500 feet stating it is a waste-disposal area with non-potable water. Contact information for both the facility operator and the Department will be posted at the entrance. Each disposal cell will be marked with a number and the authorized waste type. Depth of liquid shall not exceed three inches in any cell at any time. Different waste types shall not be combined. Cell vegetation shall be removed, and the permittee shall inspect the facility weekly for residual trash. Erosion-preventing splash pads shall be maintained. Each septage or sludge load will be mixed with lime and held at a pH of 12.0 for a minimum of 30 minutes. This shall be documented in a manifest. Sludge is allowed only in cells 3, 4 and 5. **NMED Exhibit 1, pgs. 8-10.**

51. Features of the monitoring/reporting plan include semi-annual reporting and ensuring that a detailed manifest is kept for each load of waste. The permittee shall demonstrate compliance with 40 CFR 503. If monitoring wells are installed, ongoing sampling for nitrogen species, total dissolved solids and chloride will be required. The permittee shall complete a surface-disposal data sheet for each cell documenting the amount of nitrogen applied each month; these will be part of the semi-annual reports. Sludge discharges will be monitored for by type and percent total solids to determine the dry weight; each type will be analyzed for TKN and NO₃-N. Composite samples from five locations within each cell will be collected semi-annually and analyzed for TKN, NO₃-N, FOG and TPH. **NMED Exhibit 1, pgs. 11-14.**

52. The Department invites John Painter, of the El Prado Water and Sanitation District, and Jerome Hansen to provide input on the “work plan” mentioned in the revised first paragraph of Condition 21 (as depicted in **Attachment 1**), thus according the public ongoing involvement in the process. **Testimony, Vol. II, pg. 321.**
53. Modifications to Conditions 21 and 22 (as depicted in **Attachment 1** of this document) have had repercussions for Conditions 23-28, which are contingent on the need for monitoring wells. Where similar language does not already exist, they should now be interpreted with the following phrase preceding them: “If for any reason monitoring wells are required to be installed...” Applicant concurs with this interpretation, as well as all of Attachment 1.
54. The permit includes a contingency plan that can be triggered by, among other things, exceedance of groundwater standards, FOG/TPH levels above 3,000 mg/kg, damage to the structural integrity of a cell or a spill/unauthorized discharge. Ensuing actions can include contacting the Department, excavation of contaminated soil, submission of a Corrective Action Plan, repair of damaged infrastructure, and abatement actions. **NMED Exhibit 1, pgs. 14-16.**
55. A closure plan includes backfilling the cells with clean fill and revegetating both the cells and any associated disturbed areas with native plants. **NMED Exhibit 1, pg. 16.**
56. Based upon the interest expressed by the District and others from the community during the hearing, the Hearing Officer recommends that copies of the Applicant’s monitoring reports required by DP-465, and reports of any inspection conducted

by the Bureau, be placed online and/or in the NMED Field Office for viewing during business hours.

PROPOSED CONCLUSIONS OF LAW

1. The Water Quality Control Commission (WQCC) "may require persons to obtain from a constituent agency designated by the commission a permit for the discharge of any water contaminant." NMSA 1978, § 74-6-5(A).
2. The WQCC has adopted regulations implementing the Water Quality Act at 20.6.2 NMAC.
3. The regulations at 20.6.2.3104 NMAC provide that "no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary."
4. Applicant S & R Septic is a "person" within the meaning of the regulations. 20.6.2.7(JJ) NMAC.
5. The Department is an agency of the executive branch of the state of New Mexico, created by statute. NMSA 1978, § 9-7A-6(B)(3) (1991).
6. The Department is charged with evaluating applications for discharge permits and recommending approval or disapproval by the Secretary. 20.6.2.3018 NMAC.
7. The Secretary has jurisdiction over the subject matter of the Application and the parties to this proceeding, and has authority to issue or deny ground water discharge permits based upon information submitted in a permit application and

relevant information received during the public hearing. NMSA 1978, §74-6-5, 20.6.2.3109 NMAC.

8. Activities described by S & R Septic in the Application require a groundwater discharge permit to be evaluated by the Department. 20.6.2.3104 and 20.6.2.3018 NMAC.
9. The permit application complied with the requirements of 20.6.2.3106 NMAC.
10. The Water Quality Act provides that a constituent agency shall "either grant the permit, grant the permit subject to conditions, or deny the permit." NMSA 1978, § 74-6-5(D).
11. The Department provided the public, including the Applicant, with notice of the proposed discharge permit in accordance with the regulations at section 20.6.2.3108(H) NMAC.
12. The Department provided the public, including the Applicant, an opportunity to comment on the proposed discharge permit in accordance with the regulations at 20.6.2.3108(K) NMAC.
13. The Department provided the public, including the Applicant, with notice of the public hearing in accordance with the regulations at 20.6.2.3110 and 20.1.4.200 NMAC.
14. A public hearing was held on the proposed discharge permit in accordance with the regulations at 20.6.2.3110 and 20.1.4 NMAC.
15. The Applicant bears the burden of proving that a permit should be issued and not denied. Paragraph (1) of Subsection A of 20.1.4.400 NMAC.

16. In administrative hearings under the Water Quality Act, the standard of proof is a preponderance of the evidence. Paragraph (3) of Subsection A of 20.1.4.400 NMAC.
17. At the public hearing, and in subsequent agreement with the Bureau's conditions, S & R Septic demonstrated by a preponderance of the evidence that a discharge permit should be issued with conditions.
18. The Act sets forth the grounds for which the Secretary shall deny an application for a discharge permit. NMSA 1978, § 74-6-5(E).
19. No substantial evidence was presented at the public hearing that the Application should be denied under NMSA 1978, §74-6-5(E).
20. The proposed conditions, including those set out in Attachment 1, are supported by the testimony of Mr. Snyder, Mr. Herman, and others, and "are reasonable and necessary to ensure compliance with the Water Quality Act and applicable regulations, including site-specific conditions." NMSA 1978, § 74-6-5(D).
21. The proposed discharge permit with the conditions set out in Attachment 1 meets the requirements of the regulations and will not result in a hazard to public health or undue risk to property, in accordance with 20.6.2.3109(C) NMAC.

RECOMMENDED FINAL ORDER

A draft Final Order consistent with the recommendation above is attached.

Respectfully submitted,

Original signed by

Felicia Orth

Hearing Officer for GWB 19-28 (P)

Certificate of Service

I hereby certify that on January 3, 2020 a copy of the foregoing Hearing Officer's Report was emailed to the persons listed below. A copy can be mailed via U.S. first-class mail upon request.

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ATTACHMENT 1

Monitoring Actions with Implementation Deadlines

#	Terms and Conditions
21.	<p>Within 60 days of the effective date of this Discharge Permit the permittee shall submit a work plan for NMED's approval outlining a shallow geohydrological evaluation beneath the facility. The goals of the work plan will be to identify the depth and concentration of all facility related contaminants, the existence of any saturated zones at or above the first encountered basalt layer, and any lithological zones capable of creating a perched aquifer. Members of the community shall have opportunity to provide input on the work plan.</p> <p>Within 120 days following NMED's approval of the work plan, the permittee shall implement the work plan at a location that NMED agrees is most likely to be representative of subsurface conditions. NMED shall be notified at least 30 days prior to implementing the work plan.</p> <p>Geohydrological evaluation will be completed in the following manner:</p> <ul style="list-style-type: none">• A minimum of one borehole shall be drilled using a drilling technique most apt to produce continuous representative core, e.g., a hollow-stem auger or sonic drill.• Installation of a minimum of one moisture monitoring device, e.g., suction lysimeter.• Drilling shall be conducted in such a manner most apt to detect groundwater if present.• At a minimum, a borehole shall be advanced to the first occurrence of a basalt layer.• If moisture is encountered during drilling, boring shall cease and the borehole will be allowed to rest for two hours and an evaluation shall be made to determine whether fluid accumulates at the bottom of the hole.• If a saturated zone is identified above the first basalt layer, a monitoring well will be constructed into the zone. A second borehole shall be drilled nearby utilizing surface casing that isolates the saturated interval. The intent of the second borehole will be to continue characterization of lithology and moisture content to total depth. The lateral extent of any contaminated perched water will be fully delineated.• Continuous core samples shall be collected and retained during the advancement of the borehole.• All representative soil or lithology types (a minimum of five samples) shall be submitted for laboratory analysis for the following physical properties:<ul style="list-style-type: none">○ Bulk density○ Particle size distribution○ Porosity○ Hydraulic conductivity○ Moisture content• Soil or lithologic samples shall be collected at 10-foot intervals and submitted for laboratory analysis of for the following chemical analytes:<ul style="list-style-type: none">○ TKN○ NO₃-N○ NH₃-N○ Cl○ TOC• All samples shall be collected and analyzed in accordance with EPA Soil Sampling Science and Ecosystem Support Division Operating Procedure, SESDPROC-300-R3 (enclosed) or ASTM methods D 420-93, D 1452-80, D 1586-84, D2488-93, D 4220-89, D 4700-91 and D 5434-93.

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	<ul style="list-style-type: none"> • If chemical analysis of soil or lithologic samples indicate elevated nitrogen content (as defined by exceedance of the Table 11 concentrations specified in the 1999 study titled "Evaluation of the Migration of Nitrogen Compounds at the City of Santa Fe Sludge Disposal Site Near Santa Fe, New Mexico and at the S&R Septage Disposal Site Near Taos, New Mexico" [attached]) extends to the top of the first basalt layer, the permittee shall perform complete vertical characterization of contamination through and below the basalt. • If chemical analysis soil or lithologic samples indicates elevated nitrogen content at 150 feet below ground surface, the facility shall immediately cease discharging at the facility and shall implement the closure plan. • Soil moisture monitoring systems shall be installed, and the associated borehole shall be completed in accordance with industry standards and the methodology determined during the development of the work plan. • Ninety (90) days after completion of the soil borehole sampling, the permittee shall submit a work plan completion report to NMED detailing the physical and laboratory analysis of all sampling performed including a narrative describing the project, preparations, methodology used. The report shall also include the geologic logs from the coring and any other pertinent information collected during the study. <p>[Subsection C of 20.6.2.3106 NMAC, Subsection A of 20.6.2.3107 NMAC]</p>
22.	<p>If total nitrogen content is found to be elevated above the non-impacted levels identified by Table 11 in any of the soils to lithologic samples collected at a depth of 100 feet or deeper, the permittee shall submit a written moisture monitoring proposal for review and approval by NMED. This submittal shall occur within 60 days of the completion of the sampling required by Condition 21 of this Discharge Permit. The proposal shall designate the locations and design of vadose-zone monitoring systems sufficient to evaluate total nitrogen content migration. The proposal shall include, at a minimum, the following information.</p> <ol style="list-style-type: none"> a) A map showing the proposed location of the vadose-zone monitoring system. b) A written description of the specific location and design proposed for the monitoring system including the distance (in feet) and direction of the monitoring system from the edge of the source it is intended to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 45 feet due south of the leachfield; 30 feet southeast of the re-use area 150 degrees from north. Design details of the vadose-zone monitoring system will also be provided. c) A statement describing the groundwater flow direction beneath the facility, and documentation and/or data supporting the determination. <p>All monitoring system locations shall be approved by NMED prior to installation.</p> <p>[Subsection A of 20.6.2.3107 NMAC]</p>

**STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT**

IN THE MATTER OF THE)	
APPLICATION OF S & R SEPTIC)	
FOR THE RENEWAL OF)	GWB 19-28 (P)
A SEPTAGE DISPOSAL FACILITY)	
DISCHARGE PERMIT, DP-465)	

DRAFT FINAL ORDER

This matter comes before the Secretary of Environment following a hearing before a Hearing Officer on October 16 and 21, 2019, in Taos, New Mexico.

S & R Septic (Applicant) seeks the renewal of its discharge permit for the planned discharge of up to 9,857 gallons per day of domestic septage into thirteen unlined disposal cells totaling 2.31 acres on a rotational basis; and for the planned discharge of up to 8,333 gallons per month of liquid/semi-solid/solid domestic-wastewater-treatment-facility and/or package-treatment-plant sludge to three cells totaling .46 acres on a rotational basis.

The Ground Water Bureau (Bureau) supports the issuance of the permit with conditions necessary to protect public health and welfare and the environment.

Having considered the administrative record in its entirety, including all post-hearing submittals and the Hearing Officer’s Report; and being otherwise fully advised regarding this matter;

THE SECRETARY HEREBY ADOPTS THE HEARING OFFICER’S REPORT AND PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW.

IT IS THEREFORE ORDERED:

1. The time for the Hearing Officer to submit her report was extended from January 2 to January 3, 2020.
2. The application for the discharge permit is granted.
3. The permit shall be issued by the Ground Water Bureau in the form set forth in the May 24, 2019 Draft Permit with the adjustments reflected in Bureau Attachment 1.
4. In order to make key documents related to the permit more accessible to the surrounding community, the Bureau shall maintain copies of the Applicant's monitoring reports, and reports of any inspection conducted by the Bureau, either online or in the NMED Field Office for viewing during business hours, or both.

JAMES C. KENNEY, Secretary of Environment

NOTICE OF RIGHT TO REVIEW

Any person who participated in this permitting action and who is adversely affected by the action may file a petition for review by the Water Quality Control Commission, c/o Cody Barnes, 1190 St. Francis Drive, Suite 2100 S, Santa Fe, New Mexico 87502. The petition shall be made in writing to the Commission within thirty days from the date notice is given of this action.