Job No. 198665

May 27, 2026

William Guman & Associates, Ltd
731 North Weber Street, Ste 10
Colorado Springs, CO 80903

Re: Wastewater Study
Currently addressed as: 11525 Howells Rd
Schedule No. 6214000071
El Paso County, Colorado

Dear Mr. Guman:

As requested, personnel of RMG Engineers (RMG) has site reconnaissance at the above referenced address. It i this study is:

- **Schedule No. 6214000071**, currently addresse *Residential Rural",* and consists of 5.0 acres.

An existing single family residence resides near the sout minor subdivision is proposed. If approved, it is our u change from "*RR-5 to RR-2.5".*

It is our understanding the existing 5.0-acre parcel is to b is to be 2.5 acres and is to retain the existing single-fam and on-site wastewater treatment system. The eastern lo eventually contain a new single-family residence, treatment system (OWTS) once the subdivision is appro shown on the Site Vicinity Map, Figure 1.

This letter is to provide information for the on-site was Treatment Systems (OWTS) Regulations of the El P Chapter 8.

The following are also excluded from the scope of foundation recommendations, site grading/surface drainage recommendations, geologic, natural and en unstable slopes, seismicity, snow avalanches, water floo fire protection, hazardous waste and natural resources.

Amend report to include 2 OWTS sites PER LOT:

(2) 2 OWTS Sites Required for All Lots or Parcels. All lots shall be designed to ensure that each lot has a minimum of 2 sites appropriate for OWTS which do not fall in the restricted areas identified on the preliminary plan; soils and geology report delineated wetland or floodplain maps; or other reports required under this Code.

(ii)Additional Requirements for Lot Sizes Between 2½ and 5 Acres.
For lots of between 2½ and 5 acres where OWTS are proposed, the wastewater disposal report shall additionally address the following:

- Soil Investigation conducted for no fewer than 20% of the total number of lots in the filing. Investigation shall be evenly dispersed over the project area. In cases in which unique geologic, topographic, or soils conditions, such as depth to bedrock, depth to groundwater, slopes in excess of 30 percent, etc. are found, additional tests may be required by EPCPH; and

- An analysis of the availability of a central sewage system and the feasibility of service by a central sewage system. If there is a central sewage system within 1 mile of the proposed subdivision, or if the subdivision is within an organized sewage district or municipal service area, the applicant shall submit documentation that the district or municipality is incapable of serving the site or that the costs of service are prohibitive.

Previous Studies and Field Investigation

Reports of previous geotechnical engineering/geologic investigations for this site were available for our review and are listed below:

1. *Soil and Geology Study, Currently Addressed: 11525 Howells Road, El Paso County, Colorado*, prepared by RMG Engineers, Job No. 198665, dated May 27, 2026.
2. *Soil and Geology Study, Canyon Creek Ranch, El Paso County, Colorado,* prepared by RMG – Rocky Mountain Group, Job No. 189360, last dated January 9, 2025.
3. *Open Hole Observation, 11525 Howells Road, El Paso County, CO,* prepared by Front Range Geotechnical, Inc, dated January 20, 1999.
4. *Soils Report, 11525 Howells Road, El Paso County, Colorado,* prepared by Front Range Geotechnical, Job #5996 GC, dated December 18, 1998.

The findings, conclusions and recommendations contained in these reports were considered during the preparation of this report.

SITE CONDITIONS

Personnel of RMG performed a reconnaissance visit on December 12, 2025. The purpose of the reconnaissance visit was to evaluate the site surface characteristics including landscape position, topography, vegetation, natural and cultural features, and current and historic land uses. Two test pits (6 and 7 feet deep) were performed on the new proposed (eastern) lot, during our reconnaissance visit. A Test Pit Location Plan is presented in Figure 2.

The western portion of the site is developed with an existing single-family residence with well and septic system. The eastern portion of the site is undeveloped land consisting largely of dense forest. Kettle Creek slopes extends near the northeastern property boundary. The banks of Kettle Creek have significant slopes/drop-offs, more than 50 feet in areas, to the bottom of the creek.

The following conditions were observed with regard to the 5.0-acre parcel:

- A well currently **does** exist on the existing 5.0-acre site;
- No runoff or irrigation features anticipated to cause deleterious effects to treatment systems on the site were observed;
- No major waterways exist on the property. The entire site lies outside the designated floodway or floodplain;
- Slopes greater than 20 percent **do** exist on the site; and
- Significant man-made cuts **do not** exist on the site.

code dictates restrictions for slope over 30%, please amend

Treatment Areas

Treatment areas at a minimum must achieve the following:

- The treatment areas must be 4 feet above groundwater or bedrock as defined by the Definitions 8.3.4 of the Regulations of the El Paso County Board of Health, Chapter 8, *OWTS Regulations*, effective July 7, 2018;

- Prior to construction of an OWTS, an OWTS design prepared per *the Regulations of the El Paso County Board of Health, Chapter 8, OWTS Regulations* will need to be completed. A scaled site plan and engineered design will also be required prior to obtaining a building permit;
- Comply with any physical setback requirements of Table 7-1 of the El Paso County Department of Health and Environment (EPCDHE);
- Treatment areas are to be located a minimum 100 feet from any well (existing or proposed), including those located on adjacent properties per Table 7-2 per the EPCDHE;
- Treatment areas must also be located a minimum 50 feet from any spring, lake, water course, irrigation ditch, stream or wetland, and 25 feet from dry gulches;
- Other setbacks include the treatment area to be located a minimum 10 feet from property lines, cut banks and fill areas (from the crest);
- The new lot shall be laid out to ensure that the proposed OWTS does not fall within any restricted areas, (e.g. utility easements, right of ways). Based on the test pit observations, the parcel has a minimum of two locations for the OWTS.
- The existing septic system is not to be utilized for the new residence.

Contamination of surface and subsurface water resources should not occur if the treatment areas are evaluated and installed according to El Paso County Health Department and State Guidelines in conjunction with proper maintenance.

DOCUMENT REVIEW

RMG has reviewed a preliminary concept plan. We have identified the soil conditions anticipated to be encountered during construction of the proposed OWTS for the new lot (not yet addressed). Our review included a review of documented Natural Resource Conservation Service (NRCS) data provided by websoilsurvey.nrcs.usda.gov. The Soil Survey Descriptions are presented below. A review of FEMA Map No. 08041C0507G, effective December 7, 2018 indicates that the proposed treatment areas are not located within an identified floodplain.

SOIL EVALUATION

Personnel of RMG performed a soil evaluation consisting of one 6-foot deep test pit and one 7-foot deep test pit on December 12, 2025 (Test Pit TP-1 and TP-2), utilizing the visual and tactile method for the evaluation of the site soils. The test pits were terminated at 6 and 7 feet due to bedrock. The test pits were excavated in areas that appeared most likely to be used for residential construction. The Test Pit Logs are presented in Figure 3. A Septic Suitability map is presented in Figure 4.

The soil conditions as indicated by the NRCS data are anticipated to consist of:

- **41 – Kettle Gravelly Loamy Sand**, 8 to 40 percent slopes. The Kettle Gravelly Loamy Sand was mapped by the USDA to encompass a small portion of the southeast corner of the property. Properties of the loamy sand include somewhat excessively drained soils, depth of the water table is anticipated to be greater than 80 inches, runoff is anticipated to be medium, frequency of flooding and/or ponding is none, and landforms include hills.
- **68 – Peyton-Pring complex**, 3 to 8 percent slopes. The Peyton-Pring complex was mapped by the USDA to encompass the majority of the property. Properties of the Peyton-

Pring complex include, well-drained soils, depth of the water table is anticipated to be greater than 6.5 feet, runoff is anticipated to be low, frequency of flooding and ponding is none, and landforms include hills. A USDA Soil Survey Map is presented below.



this is not the correct property

Groundwater was not encountered in the test pits but bedrock was encountered at 5 and 7 feet in the test pits performed by RMG.

An OWTS is proposed for the new eastern lot and should conform to the recommendations of a future OWTS site evaluation, performed in accordance with the applicable health department codes prior to construction. This report may require additional test pits in the vicinity of the proposed treatment field. A minimum separation of 4 feet shall be maintained from groundwater and bedrock to the infiltrative surface.

Redoximorphic features indicating the fluctuation of groundwater or higher ground water levels were not observed in the test pits.

CONCLUSIONS

In summary, it is our opinion the site is suitable for individual on-site wastewater treatment systems within the cited limitations. There are no foreseeable or stated construction related issues or land use changes proposed at this time.

Limiting layers were encountered in the test pits at depths of 5 and 7 feet. The long term acceptance rate (LTAR) associated with the most restrictive soils observed in the test pits was 0.50 gallons per day per square foot (gpd/sf) for the sandy loam (Soil Type 2A). Neither groundwater nor indications of seasonally shallow groundwater were observed in the test pit excavations at the time of the field observation.

Bedrock (as defined by USDA Soil Structure and Grade) was encountered in the test pits observed by RMG. In general, the bedrock (as defined by Colorado Geologic Survey) beneath the site is considered to be part of the Dawson formation. The Dawson formation is generally considered a restrictive layer for OWTS. The shallow depth of this formation and the required separation from the bottom of the OWTS treatment areas may result in limitations on the depth of the treatment area. An engineered OWTS should be anticipated.

LIMITATIONS

The information provided in this report is based upon the subsurface conditions observed in the profile pit excavations and accepted engineering procedures. The subsurface conditions encountered in the excavation for the treatment area may vary from those encountered in the test pit excavations. Therefore, depth to limiting or restrictive conditions, bedrock, and groundwater may be different from the results reported in this letter.

An OWTS site evaluation will need to be performed in accordance with the applicable health department codes prior to construction.

I hope this provides the information you have requested. Should you have questions, please feel free to contact our office.

Cordially,

RMG Engineers

Kelli Zigler

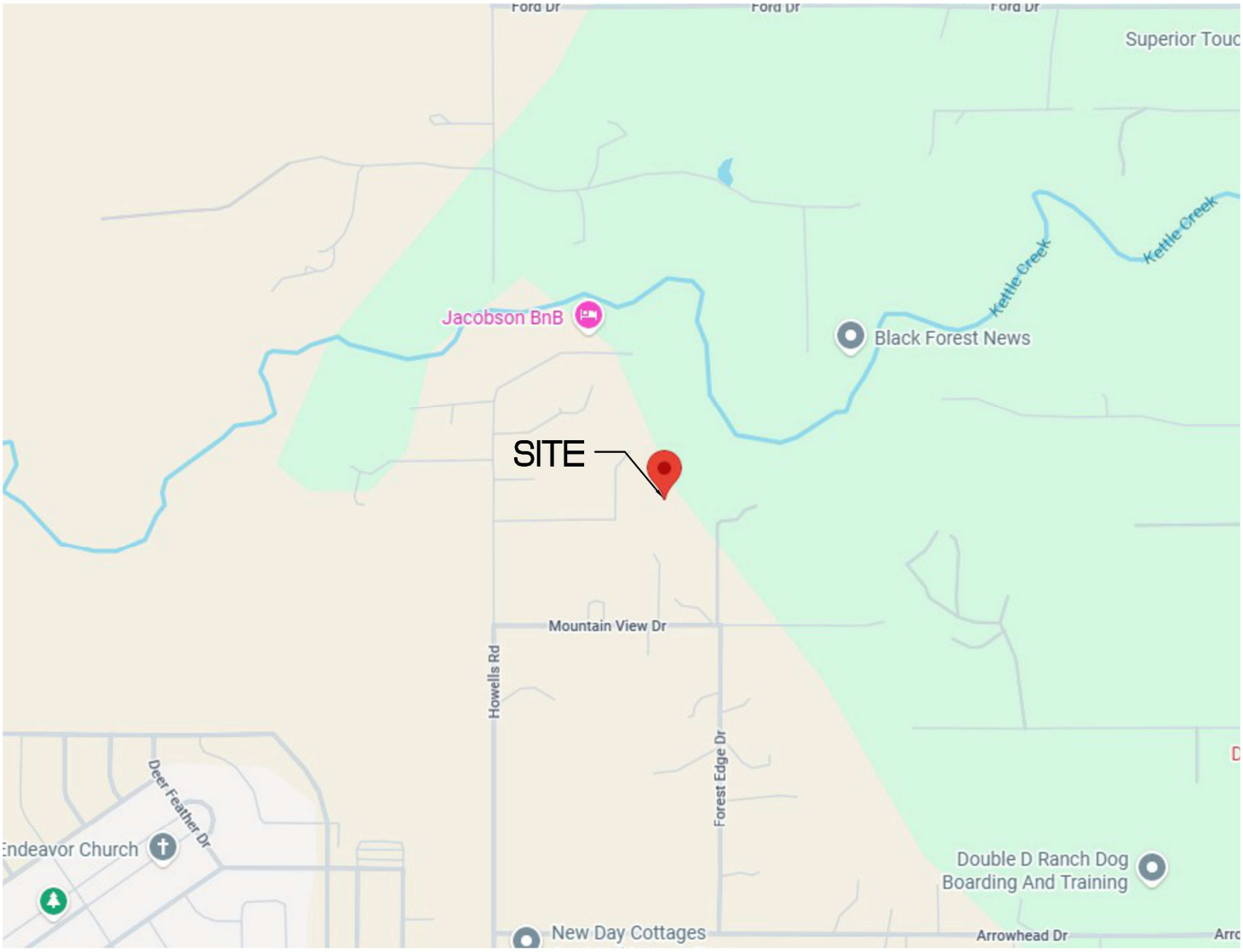
Kelli Zigler
Geotechnical Group Director

Reviewed by,

RMG Engineers

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5/28/26
39818
PROFESSIONAL ENGINEER

Tony Munger, P.E.
Sr. Geotechnical Proj Mgr | COO



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SITE VICINITY MAP

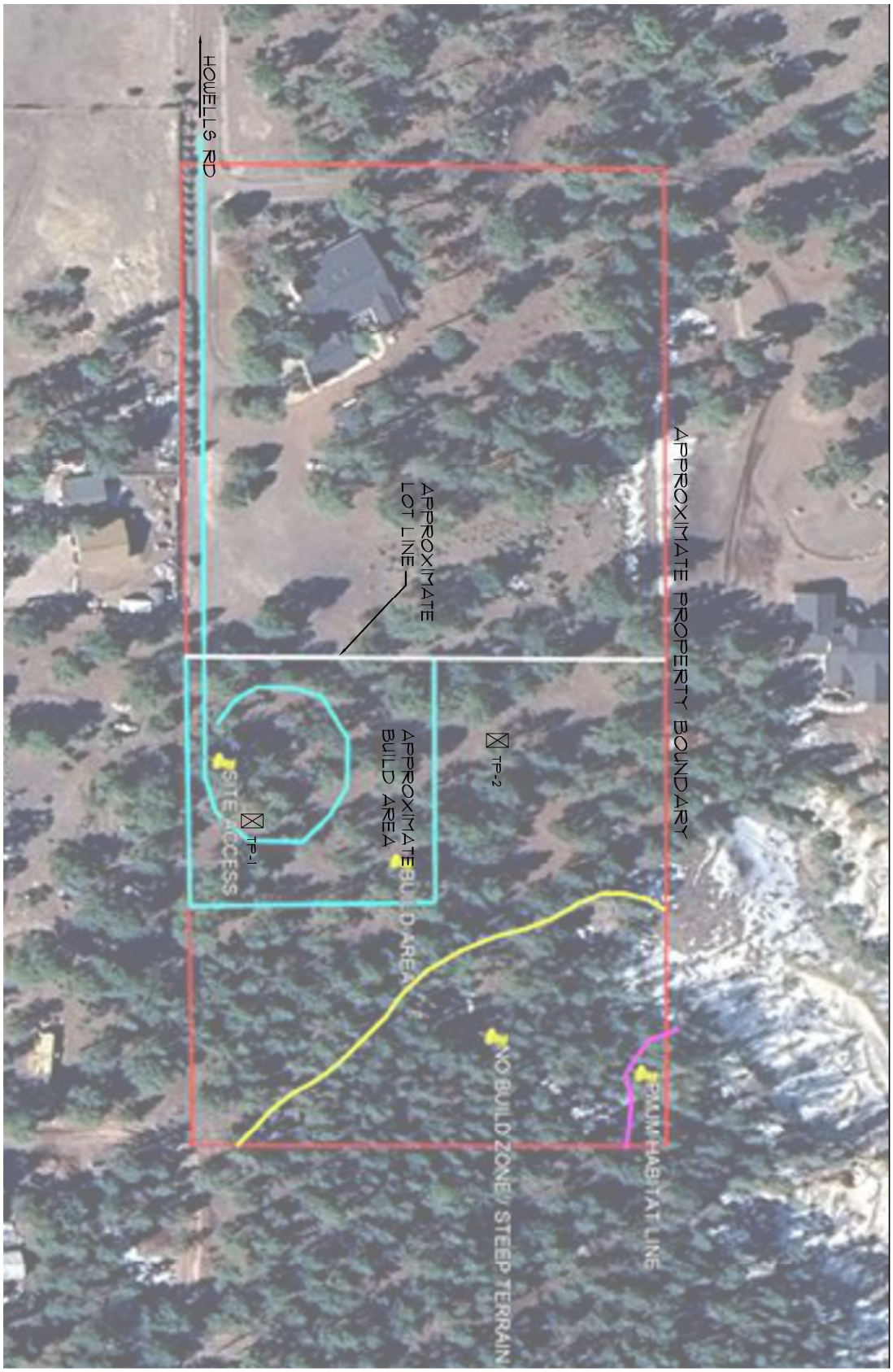
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FIG No. 1

DATE 5-27-26

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DENOTES APPROXIMATE LOCATION OF TEST PITS

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TEST PIT LOCATION PLAN

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WILLIAM GUMAN AND ASSOCIATES, LLC

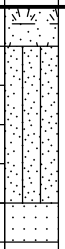
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FIG No. 2

DATE 5-27-26

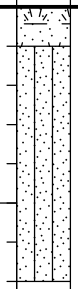
TEST BORING: **TP1**

DATE DRILLED:
12/12/25
NO GROUNDWATER ON
12/12/25

DEPTH (FT)	SYMBOL	SAMPLES	BLOWS PER FT.	WATER CONTENT %
0-1 FOOT - TOPSOIL: SANDY LOAM, GRANULAR, WEAK SOIL TYPE 2A				
1-5 FEET - SAND, SINGLE-GRAIN, STRUCTURELESS SOIL TYPE 1				
5				
5 TO 6 FEET -- BEDROCK, BLOCKY, WEAK LIMITING LAYER AT 5 FEET				

TEST BORING: **TP2**

DATE DRILLED:
12/12/25
NO GROUNDWATER ON
12/12/25

DEPTH (FT)	SYMBOL	SAMPLES	BLOWS PER FT.	WATER CONTENT %
0-1 FOOT - TOPSOIL: SANDY LOAM, GRANULAR, WEAK SOIL TYPE 2A				
1-7 FEET - SAND, SINGLE-GRAIN, STRUCTURELESS SOIL TYPE 1				
5				
7 FEET - BEDROCK, BLOCKY, WEAK LIMITING LAYER AT 7 FEET				

RMG ENGINEERS

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Forensics

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Geotechnical
Materials Testing

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SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO

TEST BORING LOG

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FIGURE No. 3

DATE May/27/2026



"No Build Zone" - Areas that contain slopes greater than 30% within the Kettle Creek drainageway are to be considered a "No Build Zone".

Denotes two possible locations for the OWTS

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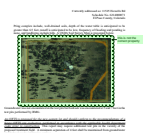
ENGINEER:	TM
DRAWN BY:	KZ
CHECKED BY:	TM
ISSUED:	5-27-2026
REVISION:	DATE:
	JOB #:

SEPTIC SUITABILITY MAP

SHEET No.
FIG-4

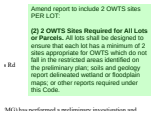
OWTS Report.pdf Markup Summary

Planner (4)



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Date: 11/5/2026 10:04:26 AM
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this is not the correct property



Subject: Planner
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Author: Juhler
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Amend report to include 2 OWTS sites PER LOT:

(2) 2 OWTS Sites Required for All Lots or Parcels. All lots shall be designed to ensure that each lot has a minimum of 2 sites appropriate for OWTS which do not fall in the restricted areas identified on the preliminary plan; soils and geology report delineated wetland or floodplain maps; or other reports required under this Code.



Subject: Planner
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code dictates restrictions for slope over 30%, please amend



Subject: Planner
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(ii)Additional Requirements for Lot Sizes Between 2½ and 5 Acres.
For lots of between 2½ and 5 acres where OWTS are proposed, the wastewater disposal report shall additionally address the following:

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