

Program, Policy, & Appeals
Committee Members:
Commissioner Matthew (Chair)
Commissioner Leininger
Commissioner Baker

## BOARD OF HEALTH – PROGRAM, POLICY, & APPEALS COMMITTEE Agenda for July 19, 2023 at 8:30 AM

- 1. Call to Order
  - a. Roll Call
  - b. Approval of the Agenda\*
- 2. Public Comment
- 3. New Business
  - a. EH Appeal\*
- 4. Public Comment
- 5. Adjournment Next meeting: August 16, 2023

### **Public Comment:**

For the purpose of public participation during public hearings or during the public comment portion of a meeting, every speaker prior to the beginning of the meeting is requested but not required to provide the Board with his or her name, address and subject to Speakers are be discussed. requested to provide comments that are civil and respectful. Each speaker will be allowed to speak for no more than three (3) minutes at each public comment opportunity.



### **Environmental Health Appeals**

**Procedure:** Appeals received as outlined in the Environmental Health Code will be first reviewed and heard by the Program, Policy and Appeals Committee (PPAC) of the Board of Health. The PPAC then provides a recommendation for full board action at the next regularly scheduled Board of Health meeting.

Environmental Health Code for Branch, Hillsdale, St. Joseph Counties, Michigan: The Environmental Health Code (EHC) for Branch, Hillsdale, and St. Joseph Counties is a legal regulation supported by the three county government commissions that received final approval from the Board of Health. The version currently in effect was adopted by the Board of Health on December 20, 1990 and became effective April 1, 1991.

**Authority:** The EHC identifies in Article 1, Section 102. <u>Authority</u>. "...adopted under authority conferred upon local health departments by Section 2441(1) of the Michigan Public Health Code, P.A. 368 of 1978 as amended." This section states:

Sec. <u>2441</u>.

A local health department may adopt regulations necessary or appropriate to implement or carry out the duties or functions vested by law in the local health department. The regulations shall be approved or disapproved by the local governing entity. The regulations shall become effective 45 days after approval by the local health department's governing entity or at a time specified by the local health department's governing entity. The regulations shall be at least as stringent as the standard established by state law applicable to the same or similar subject matter. Regulations of a local health department supersede inconsistent or conflicting local ordinances.

History: 1978, Act 368, Eff. Sept. 30, 1978 ;-- Am. 1986, Act 76, Imd. Eff. Apr. 7, 1986 ;-- Am. 2010, Act 72, Imd.

Eff. May 13, 2010 Popular Name: Act 368

**Purpose:** The EHC identifies in Article 1, Section 104. <u>Purpose</u>. "...adopted for the purpose of protecting public health and safety and the quality of the environment as it affects human health, and to prevent the occurrence of public health nuisances."

**Appeals Board:** The EHC identifies in Article 1, Section 119. <u>Appeals Board</u>. "Appeals from the rulings of the Health Officer are provided for reasonable and equitable interpretations of the provisions of these regulations. The Branch-Hillsdale-St. Joseph district Board of Health, Board of Appeals shall hear any appeal presented in accordance with rules of procedure established by the Board. The Board shall furnish the appellant with a written report of its findings and decision."

Hearing of Appeals: The EHC identifies in Article 1, Section 120. <u>Hearing of Appeals</u>. "Appeals shall be submitted in writing, addressed to the chairman of the Branch-Hillsdale-St. Joseph District Board of health in care of the Health Officer. Hearing of an appeal shall be granted at the next scheduled or regular meeting the District Board of Health or at the discretion of the chairman thereof at a special meeting called for the purpose: provided, that no hearing shall be scheduled within less than ten (10) days of receipt of written request. The Board may grant individual variances from the requirements of these regulations when said Board has adequately determined that all of the following conditions exists:

- 1) That no substantial health or nuisance is likely to occur therefrom.
- 2) That strict compliance with the code requirements would result in unnecessary or unreasonable hardship.
- 3) That no state statute or other applicable laws would be violated by such variance.
- 4) That the proposed variance would provide essentially equivalent protection in the public interest."

Criteria for Permit Denial: The EHC identifies in Article 6, Section 600.9.1. <u>Criteria for Permit Denial</u>. "The Health Officer may decline to issue a sewage disposal facility permit for any of the following reasons or causes:

- a) ...
- b) Failure of the proposed sewage disposal facility design to conform to the requirements of Article VII of these Regulations.
- c) Failure of the proposed installation site for the sewage disposal facility to conform to the requirements of Article VII of these regulations...."

**Site Acceptance Criteria:** The EHC identifies in Article 7, Section 700.3. <u>Site Acceptance Criteria.</u> "An acceptable site for a sewage disposal facility shall possess soils which are of sufficient quantity and permeability to absorb all sewage effluent to be discharged upon such site, and to insure its confinement beneath the ground surfaces at all times. The following minimum criteria shall also be determined to exist by the Health Officer as the basis for any site approval:

f) Sufficient suitable area shall be available and reserved to provide for a minimum of one replacement system without utilization or disruption of the initial installation."

Contractual requirements between DEQ and the BHSJCHA to administer the on-site wastewater program.

MPR I: The local health department shall have a wastewater treatment regulation capable of protecting the public health legally adopted under enabling state legislation. The regulation shall authorize an enforcement process that is utilized and includes the capability to deny permits, issue orders for corrections of failed systems, and/or other remedies for construction without a permit or for violating an order.

**References:** Sections 2433 through 2446 of the Public Health Code, 1978 PA 368, as amended; Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and Part 22, administrative rules.

### **DEQ On-Site Wastewater Program Staff Advice.**

• In a 2009 response to a request for input from DEQ on an appeal of a denial of a sewage permit, the Agency was advised that the request, "should be denied until sewer becomes available or additional land with suitable soils is obtained that can support an onsite sewage system that complies with your department's Sanitary Code."

Spencer & Sharon Ross 3318 102<sup>nd</sup> Ave. Gobles, MI 49055

Chairman

Board of Health

c/o Health Officer

570 Marshall Rd.

Coldwater, MI 49036

Dear Chairman:

RE: Request for Appeal - 837 Dragon Shores Rd., Coldwater, MI

We are submitting a request for appeal because our application for septic was denied(saying there is less than the required two feet of natural permeable soil above the seasonal high-water table).

We are appealing because we purchased the property on May 16, 2023 from William and Jennifer Kroncke, who told us the property was buildable and that their intention had been to build on it until a house across the channel came up for sale, which they purchased. William knew we were considering the property to use as a retirement/vacation home.

Now we have been informed by the Health Department that the site is not suitable for the installation of a standard sewage disposal system.

Upon speaking with Cody Johnson, Health Dept., we were told that we had enough property to install a mound septic system. It will cost quite a bit more than a standard septic system.

If the mound system is not approved by the board, we would like an above-ground holding tank to be considered. These are known to be used for cottage homes in Michigan.. We plan on using this property strictly as a retirement/vacation home.

If there are any other reasonable septic systems the Health Department can suggest we would like the opportunity to review them.

Thank You.

Spencer Ross

Gener Ross, Shacar F. Boss

**Sharon Ross** 



### Ross Appeal

Our agency received a request for a well and septic permit for the property at 837 Dragon Shore Dr., Coldwater, MI on May 25, 2023 from Spencer and Sharon Ross. An evaluation of the soil conditions on this site was performed by Cody Johnson on June 15, 2023. The soil evaluation revealed that there was only 14" of native soil before the seasonal high-water table was reached. Our Environmental Health Code requires a minimum of 24" of natural permeable soil above the seasonal high-water table to be acceptable for any sewage disposal facility. Our agency does have a policy that will allow a sewage disposal system to be constructed with these limited soil condition if there is at least one acre of property. Unfortunately for the Ross' their property is only .42 acres, therefore the reason for the denial of the permit.

The soil evaluation not only determined a very high seasonal water table but also fill dirt and muck beginning at 10" below the ground surface. These types of soils are very poor and unacceptable for sewage treatment. In a situation where an acre of property is available, we would require a minimum of 3' of clean sand to be place above the surface of the ground and construct the drainfield on top of the sand. Because this proposal is also a new build, our code requires an equal sized area be made available for a replacement system in the future. The required mound for this property would be a 5' finished mound (3' of sand above original grade, 1' of stone and pipe and a minimum of 1' of final cover). Additionally, the mound must be gradually tapered back to original grade to prevent erosion. Due to the limitations of the lot size and soil conditions, it is the opinion of this agency that the .42 acres is not adequate to accommodate the building proposal.

It should be noted that a request was also made in the appeal for the consideration of a holding tank. Holding tanks are only considered in situation where there is an existing home that has no other options for sewage disposal. This option should not be considered for any **proposed** building site.

# Branch-Hillsdale-St. Joseph Community Health Agency

Coldwater, MI 49036 Hillsdale, MI 49242 Three	Hill Street  e Rivers, MI 49093  ) 273-2161 ext. 233  C" Receipt # 1754  Received by		
APPL/CATION FOR: Sewage Permit (\$235) Well Permit (\$215) Site (vacant land) Evaluation (\$150)	Amount Received \$450.00 Township Code KH Section Number 8 Record Search by		
Make checks payable to: "Community Health Agen checks) (Signature below and payment of fees indicate information accurately. No refund will be available aft \$25.00 handling fee charged if no field service has been	that the applicant has or will provide all necessary er staff has provided field assistance. There is a		
	Dr., Coldwater, M. T. 49036 Property Tax ID # 12-150- P75-000-006-00		
Owners' Name: Spencer & Sha Rort A	Phone: 269-355-1664		
Owners' Current Address: 33/8 /Oand (Tie	City: (-16/05 State/1) Zip 496.55		
Contractor or Contact Person	Phone:		
Address	City:StateZip		
	ntractor or Contact Person  Samazare bhot maile		
Existing Proposed	TOWNSHIP ZONING PERMIT#		
# of bedrooms	APPLICANT MUST INCLUDE SKETCH OF:		
# of bathrooms	1. site boundaries and property dimensions		
# of occupants	<ol> <li>locations of all buildings and driveways</li> <li>locations of existing well and/or sewage system</li> </ol>		
Water softener?	4. prominent landmarks on or near the site		
Garbage disposal? $\square$ Y $\square$ N $\square$ Y $\square$ N	(surface water, fences, large trees, buildings,		
Fuel oil tank?	neighboring houses, etc.)		
•	5. wells, sewage systems, and fuel tanks on		
Previous Health Dept. Site Evaluation □ Yes □ No	adjacent lots 6. indication of the direction (north arrow)		
THE FOLLOWING ANSWERS MAY HELP US LOCATE EXISTING PERMITS ALREADY ON FILE	I, the owner or the owner's representative, agree to allow the representative of the Community Health Agency access to the		
Check here if there is □ WELL □ SEPTIC system on site.	described parcel to perform necessary tests and observations.		
When was home built?	The applicant certifies that the information contained in this application is complete and accurate to the best of their		
Name of original owner?	knowledge.		
	Signature Language Signature		
Name(s) of previous owners?	Date May 21 20 23		
Property size			

			O / Dichesio
i	FRAGON LAK	E CHAM	VNEL
74455	e PROPERTY	1 74 FT	W-J-E
	29 17	140USE 25	
	ERAGON SH	DON'T CONTRACTOR	PROPURTY LINES

NOTE: Branch County 9-1-1 will provide address applicant with a double-sided reflective green sign with address number to be posted after construction has been completed. This \sign is very important to emergency response vehicles when responding to 9-1-1 calls:

THIS IS NOT A PERMIT

Application receipt 11754

Section

## UNDEVELOPED LOT EVALUATION REPORT

DRESS 33	18 102	and A		robles,	altor agent		prospective buye	
	′		4	Other	ar, and/or directions fi	rom road ir	tersection)	
837 d	ayon 5	hoves		12-150-	P75-000-	00da - C	D	
			•				,	
PERTY OW	ner <u>Saw</u>	le_		· · · · · · · · · · · · · · · · · · ·				<del></del>
Soil	Profile(s)				Property La	yout		
#1	#2		* . #3		Channel			
	12	<u> </u>	<b>"</b> 3		.1			
~ 10°			١,		- 1		· )	
Cip.	1				,	•		M
earl .	. *				-	,		Ah
3011	1 .					,		
ul					9			
						æ		
				035	,			
				Owen The state of	X por		.,,	
				Shares	.co			
								х

					•				•
RESULTS:		£					1		
	Site s	uitable for	special systen 1 variance agr	em in accordan n as specified o reement. See I	n permit	it.			
remarks: Please	sec l	eller							
	er parameter and a second								
· · · · · · · · · · · · · · · · · · ·				, 4 3	· · · · ·			To a second year to a second s	
•	\$		\$1.1°	, , , ,		*7**	.  ,	1.	5
					· · · · · · · · · · · · · · · · · · ·				
· ·									
	\$ 14 s		1.		i. /		1		N Marie
*			•						
							·	· · · ,	
EVALUATION MA		Cody	- fl			3	DATE:	6/15,	123
I. VARIANCE - The Officer, conditions of minimized. On sites of ground surface, varia family dwelling. The affidavit signed by the that potential hazards - II. APPEALS - Appe of Health Serves as the Health Officer, 570 M	f design, occ where highly inces are lime e minimum pare owner and will be min als from the ne Board of A	supancy, and imperment ited by state or operty sized filed with simized.  rulings of the Appeals. A	d isolation are ble soils exist e laws only to e for alternati the deed to the Health Off Request for A	e such that pote and/or the sea specially design we sewage dispute property, spe ficer are provid Appeal must be	ential health he sonal high wa gned "alternat cosal systems cifying the co	azards can ater table is tive" sewag is one (1) a onditions rea	be adequate less than 2 e disposal cre. Such quired by the vironmenta	ely controll 4 inches be systems to a variance in he Health Co	led or meath the serve a single requires an Officer to assure ode. The Board
Upon receipt of the w health staff and the ar reviewed the site, suc	ppellant. If a	a soil scient	ist or consult						

MS WORD - Site Evaluation.doc 2/00 Page 2 of 2

In compliance with Article 120 of the Environmental Health Code for Branch, Hillsdale and St. Joseph Counties, Michigan, the hearing of an appeal shall be granted at the next scheduled or regular meeting of the Board of Health or at the discretion of the chairman thereof at a special meeting called for that purpose. No hearing shall be scheduled within less that ten (10) days of receipt of the written request. The Board may grant individual variances from the requirements of these regulations when said board has adequately determined that all of the following conditions exist; 1) that no substantial health problem or nuisance is likely to occur therefrom; 2) that strict compliance with the code requirements would result in an unnecessary or unreasonable hardship; 3) that no state statute or other applicable laws would be violated by such variance; and 4) that the proposed variance would provide essentially

equivalent protection in the public interest.





6/15/2023

Spencer and Sharon Ross 3318 102<sup>ND</sup> AVE Gobles, MI 49055

837 Dragon Shores Dr., Coldwater, MI (12-150-P75-000-006-00)

Mr. Ross:

This agency received a well and septic application for the above address and during the site visit, a soil auger boring was made and it was determined that the soils on the site are not suitable for the installation of a standard sewage disposal facility. The Environmental Health Code for Branch, Hillsdale and St. Joseph Counties Michigan (Section 700.3) states that the following minimum criteria shall be determined to exist by the Health Officer as the basis for any site approval:

- a. On-site soils shall have a permeability rate of not more than 45 minutes per inch
- b. At least 2 feet of natural permeable soil above the seasonal high-water table.
- c. A disposal system shall not be installed at an elevation below the flood plain of 100 years, nor otherwise located in an area subjected to seasonal flooding or ponding of surface water.
- d. A disposal system shall not be located where any factor would prohibit use of said system.
- e. A disposal system shall not be installed where the minimum required isolation distances specified in this regulation cannot be maintained.
- f. Sufficient suitable area shall be available and reserved to provide for a minimum of one replacement system without utilization or disruption of the initial installation.

There is less than the required two feet of natural permeable soil above the seasonal high-water table.

Since the minimum acceptance criteria cannot be satisfied on this property, the permit application is denied by the Health Officer to prevent the creation of conditions which may

endanger public health. Due to the failure of the proposed installation site to conform with the requirements of the Section 700.3(f), the Health Officer has declined to issue a sewage disposal facility permit for this location as allowed in the EH Code Section 600.9.1(c). Appeals from the rulings of the Health Officer are provided for reasonable and equitable interpretations of the provisions of the EH Code. Appeals shall be submitted in writing, addressed to the chairman of the Branch-Hillsdale-St. Joseph District Board of Health in care of the Health Officer.

If you decide to go through the appeals process or have any questions feel free to call me at 517-279-9561 Ext:108

Sincerely

Cody Johnson Sanitarian

Township Minderhook

Section

8

## Application receipt 18567/

## BRANCH-HILLSDALE-ST.JOSEPH COMMUNITY HEALTH AGENCY UNDEVELOPED LOT EVALUATION REPORT

ROPOSED USE: 1 or 2 family homeOtherOtherOT LOCATION: (address, subdivision & lot number, property ID number, and/or directions from road intersection)  Property Owner  ROPERTY OWNER	prospective buyer  PHONE <u>517-227-9066</u>		Dr. Gw	Prairie Diver	ERSON REQUEST
ROPERTY OWNER  Soil Profile(a)  #1 #2 #3  Top Soil  Loamy Sand  VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		2 2			
Soil Profile(s)  #1 #2 #3  S T C M  Tog Soil  Loamy Sauch	is from road intersection)	erty ID number, and/or directions fr	& lot number, pro	shotes Sub. L	OT LOCATION: (a  Prairie hiver
Soil Profile(a)  #1 #2 #3  S T C M  Top Soil  Loamy Sauch			· · ·		
Soil Profile(s)  #1 #2 #3  Top Soil  Loamy Sand  Willilling Blue Loamy Sand  or  Sandy Clay			S. S	R	ROPERTY OWNER
Top Soil  Loamy Sand  VIIIIIIII  Blue  Loamy  Sand  Sandy  Clay	Layout	Property La		en Electric	Čali D
Top Soil  Loamy  Saud  [[]][][][][]  Blue  Loamy  Saud  M  Saud  Clay  Clay	e a m	Str	#2		
Loamy Sand (1)1111111 Much (1)111111 Blue Loamy Sand W Sandy Clay		+			<del></del>
Sand    Sand   Sand   Sand   Sand   Sand   Clay		Ď.			~~~
Loamy Sandy Clay		6			Sand
Loamy Sandy Clay				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11999111
Loamy Sandy Clay	1				Much
Loamy Sandy Clay	1 6 1				Blue
Sandy Clay	a E looden	Edist. P.			
Sandy Clay	y k w Lats				Loamy
Sandy Clay					
	į.				
	· · · · · · · · · · · · · · · · · · ·				Sandy
Lonses	1 <del>Y</del>	4			
and the second	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				Lonses
	1 theme	n-1			
Dragon Shes.					

SEASONAL HIGH WATER TABLE

(SEE REVERSE SIDE FOR RESULTS) Page 1 of 2

RESULTS:	
	Site suitable for standard system in accordance with permit.  Site suitable for special system as specified on permit  Site suitable with variance agreement. See Item I below.  Site not suitable.
REMARKS:	
Soils and	water table do not meet the minimum (24") criteria for an-site septice. At this time, additional lots (adjacent) would have to be obtained to amass ground to utilize a 1 Acre Variance.
suitability.	At this time, additional lots (adjacent) would have to be obtained to amass
1 acre of	ground to utilize a 1 Acre Variance.
The second secon	
n <sup>*</sup>	
EVALUATION MA	ADE BY: Liloy D. Kuadley DATE: 6-26-15
	District Environmental Health Code allows for a variance from the standards where in the oninion of the Health

I. VARIANCE - The District Environmental Health Code allows for a variance from the standards where, in the opinion of the Health Officer, conditions of design, occupancy, and isolation are such that potential health hazards can be adequately controlled or minimized. On sites where highly impermeable soils exist and/or the seasonal high water table is less than 24 inches beneath the ground surface, variances are limited by state laws only to specially designed "alternative" sewage disposal systems to serve a single family dwelling. The minimum property size for alternative sewage disposal systems is one (1) acre. Such a variance requires an affidavit signed by the owner and filed with the deed to the property, specifying the conditions required by the Health Officer to assure that potential hazards will be minimized.

II. APPEALS - Appeals from the rulings of the Health Officer are provided for in the District Environmental Health Code. The Board of Health serves as the Board of Appeals. A Request for Appeal must be in writing and addressed to: Chairman, Board of Health, c/o Health Officer, 570 Marshall Road, Coldwater, MI 49036.

Upon receipt of the written appeal, a site inspection may be made by members of the Board of Health in company with environmental health staff and the appellant. If a soil scientist or consultant from the Michigan Department of Environmental Quality has not already reviewed the site, such review may be requested.

In compliance with Article 120 of the Environmental Health Code for Branch, Hillsdale and St. Joseph Counties, Michigan, the hearing of an appeal shall be granted at the next scheduled or regular meeting of the Board of Health or at the discretion of the chairman thereof at a special meeting called for that purpose. No hearing shall be scheduled within less that ten (10) days of receipt of the written request. The Board may grant individual variances from the requirements of these regulations when said board has adequately determined that all of the following conditions exist; 1) that no substantial health problem or nuisance is likely to occur therefrom; 2) that strict compliance with the code requirements would result in an unnecessary or unreasonable hardship; 3) that no state statute or other applicable laws would be violated by such variance; and 4) that the proposed variance would provide essentially equivalent protection in the public interest.

MS WORD - Site Evaluation.doc 2/00 Page 2 of 2

# POLICIES AND GUIDELINES FOR INSTALLATION OF ALTERNATIVE SEWAGE DISPOSAL FACILITIES ON SITES THAT DO NOT MEET THE MINIMUM REQUIREMENTS OF THE ENVIRONMENTAL HEALTH CODE FOR SOIL PERMEABILITY OR SEASONAL HIGH WATER TABLE.

This policy and guideline for Alternative Sewage Disposal Facilities are prepared under the authority of the following Section s of the "Environmental Health Code for Branch, Hillsdale and St. Joseph Counties Michigan" which state:

### 117 - POWER TO ESTABLISH POLICY AND GUIDELINES

- (1) The Health Officer is hereby granted the authority to establish policies and guidelines, not in conflict with the purpose and intent of these Regulations, for the purpose of carrying out the responsibilities herein delegated to the Health Officer by Law.
- (2) All such policies and guidelines shall be in writing and shall be kept in a policy file available for public inspection upon request. The policies and guidelines are subject to review and approval of the Branch-Hillsdale St. Joseph District Board of Health.

### 710 - Alternative Sewage Disposal Facilities

#### 710.1 - Authorization of Guidelines

The Health Officer shall be empowered to prepare guidelines concerning the application, location design, construction, usage, and maintenance of specific categories of alternative sewage disposal facilities, devices, or process. Such guidelines shall be reviewed and approved by The Board of Health.

### 710.2 - General Provisions

Alternative sewage disposal facilities, devices or processes may be approved by the Health Officer. An alternative sewage disposal facility, or process shall not be approved unless the Health Officer has determined that the use of such a facility, device, or process will not create a nuisance, result in a hazard to public health or safety, or endanger the natural environment. The usage of alternative sewage disposal facilities, devices or processes shall be subject to restrictions or limitations imposed by statutes, ordinances, or rules other than those contained in these Regulations, and to policies and guidelines adopted pursuant to authority of Section 700 of these Regulations.

### **APPLICATION**

These policies and guidelines apply only to proposed new construction, on greater than 1 acre sites, of single family homes to be served by an on-site sewage system, where the soil permeability exceeds 45 minutes per inch and /or the seasonal high water table is less than 24 inches beneath the ground surface.

### ELEVATED FILTER BED REQUIREMENTS AND SPECIFICATIONS

### SITE REQUIREMENTS

Sufficient area to allow installation of an initial absorption area and replacement absorption area of equal size meeting the minimum size and isolation requirements for both the absorption area, septic tank and sewer lines as follows

ICOL	ATION	DEOLHI	REMENTS
DOL	AIION	KEOUII	CIMENIO

ISOLATION REQUIREMENTS	SEPTIC TANK & DOSING TANK	ABSORPTION AREA
Property Lines	25 ft.	25 ft. from toe of berm
Private Wells	50 ft.	50 ft from toe of berm
Pressure Water Lines	10 ft	10 ft
Suction Water Lines	50 ft	50 ft
Public/Semi Public Wells	As mandated in applical	ble state laws
<b>Building Foundation</b>	10 ft	25 ft. from toe of berm
Surface Waters	100 ft	100 ft from toe of berm
Drainage Ways	5 ft	50 ft from toe of berm
Wet Areas	50 ft	50 ft from toe of berm
100 Year Flood Plain	10 ft	50 ft from toe of berm
Swimming Pools	10 ft	25 ft from toe of berm
Seasonal High Water Table and/or Impermeable Soil Surface.	**	minimum of four (4) feet beneath bottom of stone bed

<sup>\*\*</sup> The septic tank and dosing chamber shall be sealed water tight on all seams, around inlet, outlet and access risers and lids.

NOTE: the force main from the dosing tank to the septic tank shall be isolated a minimum of 50 ft from wells and surface waters.

SYSTEM SIZE -	1-2 bedrooms	3-4 bedrooms	> 4 bedrooms
Septic Tank	1500 gal	1500 gal	add 200 gal per bdrm
Absorption area	1000 sq ft	1500 sq ft	add 250 sq ft/ bdrm
Dosing Chamber	500 gal	500 gal	500 gal

FILL MATERIAL UNDER ABSORPTION BED - Clean coarse sand to provide a minimum of 4 feet above the impermeable soil layer and /or seasonal high water table. Coarse sand fill to be extended a minimum of 3 feet around the outside perimeter of the stone bed. eg. If the stone bed needs to be 20 feet by 50 feet then the coarse sand fill area will be 26 ft by 56 ft.

FILL MATERIAL FOR BERM AROUND BED - permeable fill material with a slope of 1: 4 extended from edge of coarse sand bed from top elevation of stone bed. Eg. If sand bed area 26 feet by 56 feet and vertical distance to top of bed at five feet then the berm would extend 20 feet around the perimeter of the sand bed. The total area taken up by the mound would be 96 feet by 66 feet.

FINAL COVER MATERIAL - no less than 1 foot nor more than 3 feet of suitable top soil over the entire mound. It is essential to seed with grass as soon as possible.

### OTHER DESIGN CONSIDERATIONS

The absorption area must be installed only during dry weather conditions. The entire initial and replacement fill area must be marked off and protected from any vehicular traffic during construction.

An approved filter device shall be installed on the outlet end of the septic tank.

The absorption area should be laid out so the distribution lines are run horizontal to the natural grade. Long narrow beds are preferred. Discharge of the septic tank effluent into the distribution lines through a center header is preferable.

Inspection ports, one in the middle of the bed, and one adjacent to the berm on the down gradient side of the site, and capped and accessible at grade level are required.

The access cover over the dosing chamber shall be accessible at ground surface and not buried.

A deed addendum form must be completed and filed prior to issuance of the construction permit.