Delaware General Health District
Division of Environmental Health

1 West Winter Street, 2nd Floor, P.O. Box 570, Delaware, Ohio 43015 Phone: (740) 368-1700 Fax: (740) 368-1736

Leaching Design Plan Checklist

Date Received: _____ Property Owner:_____

Property Address _____

Indicates plan meets ODH & DGHD requirements	YES	NO	N/A
Site and Soil Survey			
Do the plans match the calculations			
Notes Required			
Designation in notes that the designer is available to make adjustments and address concerns, as needed			
O&M requirements noted or provided			
Designation of any other obstructions			
Designation in notes that homeowner has been informed of system options and cost			
Designation in notes to contact designer before making changes to the design			
Designation in notes for protection of primary and replacement areas			
Date designer and/or designee visited the site			
Installation instructions			
29-05			
Site review fee paid			
Plan review fee paid			
29-06			
No unapproved connections to STS (e.g. roof, foundation, clear water sump, swimming pool, etc.)			
System is non-discharging			
10' isolation distances (utility line, roadway, driveway, property line, right-of-way, sealed well, recorded easement, intermittent stream, swale, geothermal horizontal closed loop, irrigation line, GWRS, hardscape, etc.)			
50' isolation distances (surface water impoundment, lake, river, wetland, perennial stream, road cut-bank, stream cut-bank, water supply source, vertical open and closed loop geothermal, etc.)			
STS sited on lot			
STS not in floodway, or wetland			
If within 100 year flood plain, STS is below grade			
Sanitary sewer not accessible			
29-07			
Soils submitted by qualified individual			
Limiting conditions described and noted			
Depth to limiting layer adequate			
Depth to restrictive layer adequate			
Soil horizons and depth indicated			
Soil texture and structure of each horizon indicated			
Slope and contours indicated			
Basal loading rate and linear loading rate are appropriate for soils utilized			
Soil classifications			
Highly permeable soil identified			
29-10			
House plan provided (with bedrooms)			
Daily design flow (with anticipated variations)			
Plan view			
Rationale for design, if differing from standards			
Description of treatment process			

Topography, scale, and north arrow provided			
Elevations (house, tanks, pumps, beginning/middle/end of distribution area etc.)			
Dimensions of property			
Pump info/pump curve			
Pressure distribution network with description and calculations			
Product info (Materials, Components, Tank Sizes, etc.)			
Length and width of treatment areas adequate			
Designation of primary and secondary treatment area mapped on plan			
Adequate access for O&M equipment provided			
Designation of hardscapes, easements, disturbed areas, soil boring locations, wooded areas, and notable areas of concern mapped on plan			
29-12			
Tank size adequate			
Tank approved by ODH			
Dosing tank accommodates reserve and/or surge capacity			
Pump properly sized and provided with accessible quick disconnect			
Air vacuum release valve (needed if pump fitting or transport line is at a higher elevation than soil absorption component.)			
Switches, controls, alarms and electrical devices are in an easily accessible location			
Control panels and alarms on exterior and 1 foot above grade			
Building sewer-no angles >45 degrees, 1-10% elevation change in pipe, and cleanout provided			
Additional cleanouts indicated when needed (over 75' and every 100' thereafter)			
29-13			
Pretreatment components have effluent sampling capability after pretreatment			
If depth ≤ 2', 8" spacing between inlet and outlet pipe			
If depth >2' but ≤6', 12" spacing between inlet and outlet pipe			
At least 2" elevation difference from inlet to outlet			
29-14			
Pretreatment device utilized for depth credit meets standards for selected depth credit			
29-15			
Limiting condition not specified-VSD-18" In situ-8"			
Fractured or karst bedrock, ground water or aquifer, flow restrictive layer-VSD-36" In situ- 12"			
Perched seasonal water-VSD 18" In situ 6"			
Sand elevation 1:1 soil depth credit utilized (12" credit) but maintains min. infiltrative distance			
Pathogen reduction depth credit utilized (12" credit) but maintains min. infiltrative distance			
Timed micro-dosing depth credit utilized (12" credit) but maintains min. infiltrative distance			
LPP distribution soil depth credit utilized (6" credit) but maintains min. infiltrative distance			
Most limiting in situ soil layer within 6" of infiltrative surface or basal surface utilized for sizing			
If a reduction for an existing lot is utilized, an explanation of need is provided			
Oriented parallel to natural contour			
Zones are designed to prevent stacking			
29-15.1			
Dose less than 1/4 daily design flow and 5 times void volume of laterals			
When flow restrictive layer within 12" of surface, Dose 1/8 design flow & 3 times void			
If zoned, dosing equal			
If time dosed, dosing spaced uniformly throughout the day			
Direction of orifices and method for shielding designated			
Orifice number and spacing provide distribution of no more than 6 sq. ft. per orifice			
Orifice size ≥1/8", ≥6" from end of lateral and ≤ 6' apart			
Method for uniform stream dispersal from orifice noted (shielding/spash plate etc.)			
Inspection port in each pressure leaching trench with 4" opening			
Inspection port in mound-at least 3, with 4"openings			
Accessible turn-ups at each lateral			

Shutoff mechanism provided			
29-16 If utilized during design			
STS 8' from drain tiles			
Interceptor drain, if used 6' upslope			
Perimeter drain, if used 6' upslope 8' elsewhere			
Perimeter drain at least 8' from mound lateral or 1 ' from toe			
Subsurface drainage 4" in diameter			
Subsurface drainage at least 10" of coarse aggregate			
Subsurface drainage positive slope of 1/10' per 100'			
Engineered drainage shows depth to seasonal water with and without drainage			
Drainage outlet-accessible, rigid wall, animal guard			
Drainage outlet-sufficient freeboard-at least 4" above water level			
Drainage outlet-permission received for discharge point, when applicable			
LEACH			
Surface water diversion addressed, as needed			
Special considerations for slopes greater than 15% needed?			
Unless timed-low pressure, 25% additional infiltrative surface added			
Non-gravel, at least 75% of required infiltrative surface			
If used, only one sizing reduction used (i.e. pretreatment and gravel-less cannot be stacked)			
No partial trenches utilized			
If trench longer than 150', manifold placed in center or pressure utilized			
New installation width maximum of 2' (alterations and replacements up to 3', if needed)			
Minimum trench depth of 2"			
Trench depth coincides with soil report			
Distance between trenches (4' for gravity/3' for LLP)			
Trench media at least 8" thickness			
Geotextile fabric/straw provided and minimum 6" of cover			
Distribution piping extending entire length of trench and minimum 3" diameter			
Pipe holes at least 1/2" in diameter and no more than 40" apart			
No serial distribution			
Availability to rest any one line while maintaining ability to treat entire daily design flow			
If fill material will be utilized, soil meets standard of 29-15 (O) (5) (a) & (b)			