CHECKLIST
On-Site Testing

The following steps must occur during the on-site testing of a site on which an onlot sewage system absorption area has been proposed.

MINIMUM HORIZONTAL ISOLATION DISTANCES

❑ Horizontal isolation distances from proposed tanks and system components have been measured and verified. Minimum isolation distances have been maintained.

❑ Horizontal isolation distances from the proposed absorption area aggregate have been measured and verified. Minimum isolation distances have been maintained.

SLOPE

❑ Slope of the site where the absorption area is proposed has been measured and verified not to exceed maximum slope measurements, according to the absorption area requirements.

❑ The type of absorption areas permitted on a site based on maximum slope of a site has been determined.

The maximum slope limits for each of these absorption areas are provided below:

In-ground absorption area
Seepage bed: 0-8 percent
Trenches: 0-25 percent
Subsurface sand filter bed: 0-8 percent
Subsurface sand filter trenches: 0-25 percent

Elevated absorption area
Elevated sand mound bed: 0-12 percent
Elevated sand mound trench: 0-12 percent

IRSIS (Individual Residential Spray Irrigation System)
Nonfood-producing agricultural area: 0-4 percent
Open-grassed area: 0-12 percent
Forested area (closed canopy): 0-25 percent

Alternate absorption areas *have different slope requirements. Refer to DEP's Alternate Guidance at www.dep.state.pa.us or the Onlot System Component Matrix found in Academy Course Materials, Courses, Course O, Chapter O-3, Resources, at www.seotraining.org.*

SOIL TEST PROBE

❑ At least one soil test probe has been excavated for review *(within 10 feet of the proposed absorption area).* ***Note:*** *Some absorption areas require more than one probe. The local agency or the SEO may require additional confirming probes to bracket the proposed area to verify that the entire area is suitable.*

❑ A soil profile description has been written and verified for each soil probe. *In the description, the various soil horizons within a soil probe have been determined and should identify horizon depths and soil characteristics such as color, texture, and structure.*

❑ In the description, the limiting zone, if present, has been determined, and the mineral soil above the limiting zone has been measured (depth to limiting zone).

The types of limiting zones are . . .

1) a seasonal high water table determined by direct observation or as evidenced by soil mottles,
2) rock with insufficient fine soil, or
3) bedrock or other slowly permeable stratum.

❑ The type of absorption areas permitted on a site (based on depth to limiting zone) has been determined.

The minimum depths to limiting zones for each of these systems are provided below. You may also find this information on the Onlot System Component Matrix.

In-ground absorption area *– minimum of 60 inches of suitable soil to a limiting zone*
Elevated sand mound *– minimum of 20 inches of suitable soil to a limiting zone*
At-grade absorption area *(with no secondary treatment) – minimum of 48 inches of suitable soil to a limiting zone*
At-grade absorption area *(with secondary treatment) – minimum of 20 inches of suitable soil to a limiting zone*
Drip irrigation absorption area *– minimum of 20 inches of suitable soil to a limiting zone*
IRSIS and alternate shallow limiting zone at-grade absorption area *– minimum of 16 inches of suitable soil to rock limiting zone, and minimum of 10 inches to seasonal high water table limiting zone*

***NOTE**: Additional secondary and advanced treatment components may be required with some of these absorption areas. More information can be found on the Onlot System Component Matrix.*

PERCOLATION TEST / SOIL MORPHOLOGICAL ASSESSMENT

❑ A percolation test has been conducted, and an average percolation rate has been calculated. *This rate is used to help determine the **type** and the **size of the absorption area** for the proposed site.*

❑ For sites using certain absorption area technologies, a qualified soil scientist has conducted a soil morphological assessment, if required, and assigned a loading rate to help size the absorption area.

❑ The type of absorption area permitted on a site, based on average percolation rate or soil morphological assessment results, has been determined.

The average percolation rate or the soil morphological evaluation required for each of these absorption areas is provided below. You may also find this information on the Onlot System Component Matrix.

***In-ground absorption area** – 6-90 minutes per inch average percolation rate*
***Elevated sand mound** – 3-180 minutes per inch average percolation rate*
***Subsurface sand filter absorption area** – >90 minutes per inch average percolation rate at 12- to 36-inch depth and 3-90 minutes per inch at a depth between 36 and 60 inches*
***At-grade absorption area** – 3-180 minutes per inch average percolation rate*
***IRSIS** – percolation test not required*
***Shallow limiting zone at-grade absorption area** – no percolation test; soil morphological evaluation required*
***Drip irrigation absorption area** – no percolation test; soil morphological evaluation required*
