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3745-40-01

**Definitions.**

(A)

- (1) "Aerobic digestion" means the biochemical decomposition of organic matter in sewage sludge material into carbon dioxide and water by microorganisms in the presence of oxygen.
- (2) "Agronomic benefit" means agronomic benefit, as defined in section 6111.01 of the Revised Code.
- (3) "Agronomic rate" means a rate of application of nutrients from any source to the land or an amount of nutrients removed by crop based on all of the following:
  - (a) Nutrient content of the biosolids to be applied.
  - (b) Nutrient needs of the current or planned crops.
  - (c) Nutrient holding capacity of the soil.
- (4) "Anaerobic digestion" means the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of oxygen.
- (5) "Animal waste" means animal excreta, bedding, wash waters, waste feed, and silage drainage.
- (6) "Authorized beneficial use site" means an area of land that has been authorized by the Ohio environmental protection agency to receive class B biosolids in accordance with rule 3745-40-06 of the Administrative Code.
- (7) "Available water capacity" means the capacity of soils to hold water available for use by most plants.

[\[Comment: Information on available water capacity can be found in appendix B to rule 901:10-2-14 of the Administrative Code.\]](#)

(B)

- (1) "Bedrock" means any continuous or connected solid rock exposed at the surface of the earth or covered by soil or glacial deposits.

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- (2) "Beneficial use" means the placement of class B or bulk exceptional quality biosolids onto a beneficial use site through the spraying or spreading of biosolids onto the surface of the beneficial use site, the injection of biosolids below the surface of the beneficial use site, the incorporation of biosolids into the soil, for the purpose of providing an agronomic benefit, or the distribution of exceptional quality biosolids that do not satisfy the definition of bulk exceptional quality biosolids.
- (3) "Beneficial use site" means an authorized beneficial use site where class B biosolids are beneficially used or an area of land where bulk exceptional quality biosolids are beneficially used. For the purposes of this definition, an area of land is all contiguous acres at a single authorized beneficial use site or a single beneficial use site where class B or bulk exceptional quality biosolids will be beneficially used, respectively.
- (4) "Beneficial use site authorization" means a written authorization in the form of a letter from the director or an authorized representative permitting the beneficial use of class B biosolids on a beneficial use site.
- (5) "Beneficial use site operator" means the person who plants, grows, harvests or otherwise manages feed crops, fiber crops, food crops, turf, or pasture ~~land~~ on a beneficial use site.
- (6) "Beneficial use site owner" means the person or persons who hold legal title to the beneficial use site.
- (6)(7) "Beneficial user" means the person ~~who sprays or spreads onto the surface of the beneficial use site, injects below the surface of the beneficial use site, or incorporates into the soil of the beneficial use site, for the purpose of providing an agronomic benefit, beneficially using~~ class B or bulk exceptional quality biosolids ~~or the person instructing and supervising the person beneficially using class B or bulk exceptional quality biosolids. The beneficial user needs to be certified in accordance with rule 3745-40-13 of the Administrative Code.~~
- (8) "Beneficial user certification" means the certification obtained by a person to beneficially use biosolids by the Ohio environmental protection agency under rule 3745-40-13 of the Administrative Code.
- (7)(9) "Biosolids" means sewage sludge or mixtures containing sewage sludge that have been treated for beneficial use.

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~~(8)~~(10) "Biosolids management planpermit" means a plan permit approved and issued by the Ohio environmental protection agency for the treatment, disposal, transfer or storage of sewage sludge or biosolids or the beneficial use of biosolids that ~~has been approved by the director~~~~is not covered by an NPDES permit~~.

~~[Comment: Biosolids management plans are generally used for special scenarios that may not be covered by an NPDES permit (e.g. the use of biosolids for deep row hybrid poplar tree farming).]~~

(11) "Biosolids pilot study" means a small-scale preliminary study for which temporary regulatory relief from specific requirements of this chapter is authorized by the director or an authorized representative for the collection of specific data to evaluate alternatives or innovative approaches to comply with this chapter while ensuring that public health and the environment are protected.

~~(9)~~(12) "Bulk exceptional quality biosolids" means exceptional quality biosolids and derivatives that are not sold or given away in a container. A derivative that contains less than or equal to five per cent by weight in wet tons of exceptional quality biosolids is not considered bulk in any quantity.

(C)

(1) "Child day-care center" means any place in which child care is provided for seven or more children at one time, and that is not the permanent residence of the licensee or administrator of the center.

(2) "Class B biosolids" means ~~class B biosolids~~sewage sludge that has been treated to meet the pathogen reduction, vector attraction reduction, pollutant concentration limits, and screening requirements, as defined described in rule 3745-40-04 of the Administrative Code.

(3) "Commercial septage" means liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives sewage from a commercial establishment.

(4) "Composite sample" means a sample that is comprised of a minimum of six grab samples, collected at such times and locations and in such a fashion, as to be representative of the facility's sewage sludge or biosolids.

(5) "Conduits" means natural or artificial channels that lead to waters of the state. This includes, but is not limited to, grassed waterways, subsurface tile

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drainage systems, and roadside ditches.

(6) "Contact hours" means time spent in director-approved training.

~~(5)~~(7) "Container" means either an open or closed receptacle ~~containing with a load capacity of~~ one metric ton or less ~~of exceptional quality biosolids~~. This includes, but is not limited to, a bag, a bucket, a box, a carton, a vehicle, or a trailer with a load capacity of one metric ton or less.

(8) "Contiguous" means sharing a common border, except when that border is surface waters of the state.

~~(6)~~(9) "Cover crop" means a small grain crop, such as oats, wheat, or barley, not grown for harvest.

~~(7)~~(10) "Crop year" means the period of time for a particular crop to be planted and harvested, or one year's time, whichever is shorter.

~~(8)~~(11) "Cumulative pollutant loading rate" means the total amount of an inorganic pollutant that can be applied at a beneficial use site, in accordance with paragraph (D) of rule 3745-40-04 of the Administrative Code.

(D)

~~(1) "Dioxin" means all of the seven 2, 3, 7, 8-chlorinated dibenz-p-dioxin congeners, ten 2, 3, 7, 8-chlorinated dibenzofuran congeners, and twelve coplanar polychlorinated biphenyl congeners in the following table:~~

Congeners

	<del>number</del> <del>CAS</del>
<del>1746-01-6</del>	
<del>40321-76-4</del>	
<del>39227-28-6</del>	
<del>57653-85-7</del>	
<del>19408-74-3</del>	
<del>35822-46-9</del>	
<del>3268-87-9</del>	

\*\*\* DRAFT - NOT YET FILED \*\*\*

<del>51207-31-9</del>	
<del>57117-41-6</del>	
<del>57117-31-4</del>	
<del>70648-26-9</del>	
<del>57117-44-9</del>	
<del>72918-21-9</del>	
<del>60851-34-5</del>	
<del>67562-39-4</del>	
<del>55673-89-7</del>	
<del>39001-02-0</del>	
<del>32598-13-3</del>	
<del>70362-50-4</del>	
<del>57465-28-8</del>	
<del>32598-14-4</del>	
<del>31508-00-6</del>	
<del>65510-44-3</del>	
<del>74472-37-0</del>	
<del>32774-16-6</del>	
<del>38380-08-4</del>	
<del>69782-90-7</del>	
<del>52663-72-6</del>	
<del>39635-31-9</del>	

(1) "Derivative" means a product for beneficial use derived from exceptional quality biosolids blended with soil that does not contain pollutants.

(2) "Director" means director of the Ohio environmental protection agency.

- (3) "Discharge" means discharge of any pollutant or pollutants from any point source.
- (4) "Disposal" means the placement of either sewage sludge or biosolids into a landfill or an incinerator.
- (5) "Distribution" means the selling or giving away of exceptional quality biosolids ~~that do not satisfy the definition of bulk exceptional quality biosolids or derivatives in a container for beneficial use.~~
- (6) ["Distributor"](#) means the person who sells or gives away exceptional quality biosolids or derivatives in a container for beneficial use.
- ~~(6)~~[\(7\)](#) "Domestic septage" means domestic septage, as defined in ~~division (D) of section 3718.01 rule 3701-29-01~~ of the [Revised Administrative Code](#).
- ~~(7)~~[\(8\)](#) "Draghose" means a liquid biosolids application system where the application unit is attached to the storage unit by a long flexible hose.
- ~~(8)~~[\(9\)](#) "Drinking water source protection area for a public water system using ground water" means the surface and subsurface area surrounding a public water system's supply wells that will provide water to the wells within five years as delineated or endorsed by the Ohio environmental protection agency under the wellhead protection program and the source water assessment and protection system.
- ~~(9)~~[\(10\)](#) "Dry weight basis" means calculated on the basis of having been dried at one hundred five degrees Celsius (two hundred twenty-one degrees Fahrenheit) until reaching a constant mass (i.e., essentially one hundred per cent solids content).

(E)

- (1) "Emergency management zone" or "EMZ" means the surface and subsurface area in the immediate vicinity of a public water system intake as delineated or endorsed by the Ohio environmental protection agency under the source water assessment and protection program within which the public water supply owner or operator has little or no time to respond to potential contamination from a spill, release, or weather related event. The standard emergency management zone boundary consists of a semi-circle that extends five hundred feet upstream of the intake and one hundred feet downstream of the intake, except as modified due to local conditions.

(2) "Exceptional quality biosolids" or "EQ biosolids" means ~~exceptional quality biosolids~~ sewage sludge that has been treated to meet the applicable pathogen reduction, microbial limits, vector attraction reduction, pollutant concentration limits, and screening requirements as ~~defined described~~ in rule 3745-40-04 of the Administrative Code. Exceptional quality biosolids includes derivatives.

(F)

(1) "Facility storage" means the storage of sewage sludge or biosolids at the permittee's treatment works.

(2) "Feed crops" means crops produced primarily for consumption by animals.

(3) "Feedstocks" means organic materials ~~used in~~ added to an anaerobic ~~digestion digester~~ for the purpose of producing energy from methane generation, ~~including during anaerobic digestion, only~~ Only the following materials may be used as feedstocks:

- (a) Animal wastes.
- (b) Biosolids.
- (c) Energy crops (i.e. grain, hay, silage, spilled and soiled feed, and stover).
- (d) Fats, oils, and greases (FOG).
- (e) Food scraps.
- (f) Food waste.
- (g) Glycerin byproducts from bio-diesel production.
- (h) Sewage sludge.
- (i) Stillage byproducts from ethanol production.
- (j) Yard waste.

\*\*\* DRAFT - NOT YET FILED \*\*\*

- (4) "Fiber crops" means crops such as flax and cotton that are produced primarily for the production of products and are not consumed by people or animals.
- (5) "Field storage" means the storage of biosolids ~~in-a-field~~ at a beneficial use site for no more than ninety days per calendar year.
- (6) "Floodplain" means the area adjoining any river, stream, watercourse, or lake that has been or may be covered by flood water.
- ~~(6)~~(7) "Food crops" means crops consumed by people, including but not limited to, fruits, vegetable, and tobacco.
- ~~(7)~~(8) "Food scraps" means any of the following:
  - (a) Source-separated plant materials, including stems, leaves, vines, or roots, from an agricultural process.
  - (b) Source-separated raw, harvested vegetables, fruits, and grains, and the paper from packaging (the packaging paper identified in this feedstock type is intended to include only those papers in which the raw, harvested vegetables, fruits, and grains are wrapped).
  - (c) Source-separated vegetables, fruits, and grains processed for human or animal consumption (for the purpose of this rule, processed for human or animal consumption includes, but is not limited to, source-separated vegetables, fruits, and grains processed for human or animal consumption that have been cooked, stewed, canned, or packaged).
  - (d) Source-separated dairy products processed for human consumption such as, cheese, butter, milk, yogurt, eggs and cream, and meats processed for human consumption or meats subject to the federal Meat Inspection Act or meats subject to the Poultry Products Inspection Act, excluding meats from non-domestic animals, meats from slaughter houses and retail stores.
- ~~(8)~~(9) "Food waste" means food that was originally grown, harvested, or produced for human or animal consumption that has been determined to no longer be viable for consumption and has been removed from the food supply due to factors such as spoilage or expiration.
- ~~(9)~~(10) "Foreign/Inert matter" means wastes such as plastics, metals, ceramics or

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other manufactured items that remain relatively unchanged during wastewater or biosolids treatment processes.

(10) ~~"Frequently flooded" means an area of a beneficial use site that has flooded on average more than once every two years. Frequently flooded and the months when flooding is expected shall be determined by consulting table 1 of appendix A to rule 901:10-2-14 of the Administrative Code.~~

(11) "Frozen ground" means ground that is impenetrable because of frozen soil moisture. Generally, frozen ground ~~shall meet~~ meets all of the following criteria:

(a) ~~Not~~ Is not easily penetrated by a metal object.

(b) ~~Not~~ Does not deform to show visible imprint under downward pressure.

(c) ~~Have~~ Has a temperature below thirty-two degrees Fahrenheit (zero degrees Celsius).

## (G)

(1) "Grab sample" means a single representative sample or measurement collected at a specific time.

(2) "Grit" means materials such as sand, gravel or cinders that have a high specific gravity and are generally removed from sewage prior to secondary treatment at a treatment works.

[Comment: Grit materials are considered solid waste and ~~should not~~ cannot be part of a beneficial use application. Grit materials ~~should~~ are to be disposed of within a landfill.]

(3) "Ground cover" means vegetation canopy or crop residue on agricultural land.

(4) "Ground water vulnerability index" means a numerical value assigned to an area based on its hydrogeologic, topographic, and soil media characteristics that indicates the area's vulnerability to ground water contamination, as determined by the Ohio Department of Natural Resources.

[Comment: The ODNR ground water vulnerability map of Ohio can be found at: <https://gis.ohiodnr.gov/website/dgs/geologyviewer/>.]

## (H)

(1) "Highly susceptible" means the likelihood for the source water used by a public water system to become contaminated, as determined by Ohio EPA's source water assessment and protection program.

~~(H)~~(2) "High potential public exposure site" means an authorized beneficial use site that the public uses frequently. This includes, but is not limited to, a public contact site or a land reclamation site located in a populated area (e.g., a park, golf course, or a construction site located in a municipality).

(I)

(1) "Immediate incorporation" means incorporation, as defined in this paragraph, of biosolids within six hours after delivery to the authorized beneficial use site.

(2) "Incineration" means the disposal of sewage sludge or biosolids through the combustion of organic matter and inorganic matter in sewage sludge or biosolids by high temperatures in an enclosed device.

(3) "Incorporation" means the mixing of biosolids with soil on ~~an authorized a~~ beneficial use site to a minimum depth of four inches or greater by such means as discing, plowing, or tilling.

[Comment: Both ~~same-day~~ same-day incorporation and immediate incorporation are defined in this rule.]

(4) "Industrial septage" means liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives sewage from an industrial establishment.

(5) "Industrial wastewater" means wastewater generated in a commercial or industrial process.

(6) "Injection" means the subsurface placement of liquid biosolids to a depth of four inches or greater into ~~an authorized a~~ beneficial use site. Injected biosolids ~~shall are to~~ remain four inches or greater below the ground and ~~shall~~ not be forced to the surface of the ground.

(7) "Inner management zone" means the surface and subsurface area within a drinking water source protection area for a public water system using ground water surrounding any public water supply well that will provide water to that well within one year as delineated or endorsed by the director under the wellhead protection program and the source water assessment and protection

program.

(8) "Isolation distance" means the distance to a specified object from the nearest edge of the biosolids application area.

(J) [Reserved.]

(K) [Reserved.]

(L)

(1) "Land reclamation" means the returning of lands disturbed through mining operations or industrial activity to productive uses.

(2) "Landfill" means a sanitary landfill facility, as defined in rule 3745-27-01 of the Administrative Code and section 3734.02 of the Revised Code, that is licensed under section 3734.05 of the Revised Code.

(3) "Liming material" means all materials, the calcium and magnesium content of which is used to neutralize soil acidity, and includes the oxide, hydrate, carbonate, and silicate forms, as defined by rule, or combinations of those forms. Liming material includes materials such as limestone, hydrated lime, burnt lime, or marl and shell.

(4) "Liquid biosolids" means biosolids that contain free liquids as determined by the paint filter test in accordance with method 9095B of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" also known as "SW 846."

(5) "Low lying wet area" means an area of a beneficial use site where the soils are saturated and where water tends to pond.

(6) "Low potential public exposure site" means an authorized beneficial use site that the public uses infrequently. This includes, but is not limited to, agricultural land and land reclamation sites where the general public's access is restricted.

(M)

(1) "Medical care facility" means home as defined in section 3721.01 of the

Revised Code, hospital as defined in section 3727.01 of the Revised Code, residential facility as defined in section 5119.34 of the Revised Code, nursing facility as defined in section 5165.01 of the Revised Code and similar facilities.

(2) "Mobile storage tank" means a container that is capable of being moved when empty to ~~an authorized~~ a beneficial use site for the purpose of holding liquid biosolids.

~~(3) "Multi-year phosphate agronomic rate" means the beneficial use rate of biosolids that will provide the phosphate needs for a realistic yield goal of multiple crops to be grown at the beneficial use site, but not to exceed five calendar years of planned crops. In multi-year phosphate applications, no additional source of phosphorus is applied to the same beneficial use site in subsequent years until the applied phosphate has been removed from the beneficial use site via harvest and crop removal.~~

(N)

(1) "Nitrogen agronomic rate" means the beneficial use rate of biosolids that will provide the nitrogen requirements or nitrogen removal rates for a realistic yield goal of the succeeding crop to be planted at the beneficial use site. The realistic yield goal may be based on the average yields for that crop from the preceding three years, state averages for that crop, or county averages for that crop. In calculating the nitrogen agronomic rate, ~~the permittee shall~~ subtract both of the following:

(a) The nitrogen credit to be given to the next crop, in accordance with values for previous crops.

(b) The nitrogen that will be added in other forms.

[Comment: ~~For beneficial use sites where~~When applying nitrogen to a grass or legume cover crop ~~that~~ is growing or being established ~~or will be established~~immediately after beneficial use ~~of biosolids~~, the biosolids ~~may still~~ can be ~~beneficially used~~applied at the recommended nitrogen rate for the next non-legume crop~~to provide the nitrogen requirements or the~~ nitrogen removal ~~rates~~ rate for the ~~succeeding crop to be planted after the grass or next~~ legume ~~ever~~ crop.]

(2) "Non-traditional feedstocks", "NTFs", or "alternative feedstocks" means organic

materials not listed under the definition of "feedstocks" in this rule, used in anaerobic digestion for the purpose of producing energy from methane generation, and approved for use by Ohio EPA.

- (3) "NPDES permit" means national pollutant discharge elimination system permit that has been approved and issued by the Ohio environmental protection agency.
- (4) "Nuisance odor" means an emission of any gas, vapor, aerosol or combination thereof from the management of sewage sludge or biosolids, in ~~whatever any~~ quantities, that causes, either alone or in reaction with other air contaminants, injurious effects to public health or the environment or unreasonable interference with the comfortable enjoyment of life or property.

(O)

- ~~(1)~~ "Occupied structure" means any house, building, outbuilding, mobile home, recreational vehicle, tent, or other structure or shelter, or any portion thereof, to which any of the following applies:
  - ~~(a)~~ Is maintained as a permanent or temporary dwelling, even though the structure is temporarily unoccupied and whether or not any person is actually present.
  - ~~(b)~~ Is occupied as the permanent or temporary habitation of any person, whether or not any person is actually present.
  - ~~(c)~~ Is specially adapted for the overnight accommodation of any person, whether or not any person is actually present.
  - ~~(d)~~ At the time, any person is present or likely to be present in the structure.
  - ~~(e)~~ For mobile items such as mobile homes, recreational vehicles and tents, the mobile item is present within the applicable isolation distances prior to the commencement of beneficial use.

(2) [Reserved.]

(P)

- (1) "Pasture" means land on which animals feed directly on vegetation such as legumes, grasses, grain stubble or stover.
- (2) "Pathogen" means a ~~disease-causing~~ disease-causing organism and includes, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.
- (3) "Permittee" means the holder of a valid NPDES permit or a biosolids management ~~plan~~ permit approved by the director.
- (4) "Person" means person as defined in section 6111.01 of the Revised Code.
- (5) "pH" means the logarithm of the reciprocal of the hydrogen ion concentration measured at twenty-five degrees Celsius (seventy-seven degrees Fahrenheit) or measured at another temperature and then converted to an equivalent value at twenty-five degrees Celsius (seventy-seven degrees Fahrenheit).
- (6) "Phosphate agronomic rate" means the beneficial use rate of biosolids that will provide the phosphate needs for a realistic yield goal of the succeeding crop or crops to be planted at the beneficial use site.
- (6) ~~"Phosphorus index" means the Ohio natural resources conservation service (NRCS) assessment technique for determining the relative risk of phosphorus movement from various landforms to waters of the state. Factors assessed include, but are not limited to, proximity to waters of the state, slope, soil and weather conditions, soil type, buffer strips, soil surface condition, surface and sub-surface drainage, phosphate source application rate and application method, and organic phosphorus Source Coefficient (accounting for environmentally relevant phosphorus). The phosphorus index risk assessment procedure can be found in appendix E, table 1 of rule 901:10-2-14 of the Administrative Code.~~
- (7) "Pollutant" means ~~an organic substance, an inorganic substance, a combination of organic and inorganic substances, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the administrator of the United States environmental protection agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms~~ sewage, industrial waste, or other waste as defined by divisions (B) to (D) of section 6111.01 of the Revised Code.

(8) "Preschool" means any public or private institution or center that provides early childhood instructional or educational services to children who are at least three years of age but less than six years of age, whether or not those services are provided in a child day care setting. "Preschool" does not include any place that is the permanent residence of the person who is providing the early childhood instructional or educational services to the children.

(9)(8) "Private potable water source" means the site or area from which water is obtained for the purpose of supplying water to a private water system as defined in rule 3701-28-01 of the Administrative Code, including wells, springs, cisterns, ponds, or hauled water storage.

(9) "Privately owned treatment works" means a treatment works that is not owned or operated by a public authority as defined in rule 3745-36-02 of the Administrative Code.

(10) "Public contact site" means land with a high potential for contact by the public. This includes but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms and golf courses.

(11) "Public water system" means public water system as defined in rule 3745-81-01 of the Administrative Code.

(Q) [Reserved.]

(R)

(1) "Regional storage facility" means a constructed facility engineered for the storage of biosolids destined for beneficial use, ~~or sewage sludge or biosolids destined for~~ disposal, or transfer to another facility.

(2) "Representative sample" means a sample of a universe or whole which can be expected to exhibit the average properties of the universe or whole.

(3) "Runoff" means rainwater, leachate, snowmelt, or other liquid that drains overland on any part of a land surface and runs off the land surface.

(S)

(1) "~~Same-day~~ Same-day incorporation" means incorporation, as defined in paragraph (I) of this rule, of biosolids within twenty-four hours after surface

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application.

- (2) "Saturated soil" means all of the pore spaces in the soil are filled with water. A soil that has an available water capacity above field capacity is considered saturated.
- (3) "School" means a child day-care center, a preschool, or a public or nonpublic primary school or secondary school, including any grounds, play areas, and other facilities of a preschool, or child day-care center or primary or secondary school that are regularly used by the children or students served by the preschool, child day-care center, primary school, or secondary school.
- (4) "Screenings" means relatively large materials such as rags that are generally removed from sewage prior to secondary treatment at a treatment works.

[Comment: Screenings are considered solid waste and ~~should not~~ cannot be part of a beneficial use application. Screenings ~~should~~ are to be disposed of within a landfill.]

- (5) "Sewage" means sewage, as defined in section 6111.01 of the Revised Code.
- (6) "Sewage sludge" means sewage sludge, as defined in division (Y) of section 3745.11 of the Revised Code.
- (7) "Sewage sludge that has been treated" means sewage sludge that has been prepared for beneficial use or disposal, or transferred to another NPDES permitted treatment works and includes, but is not limited to, sludge that has been thickened, stabilized and dewatered.
- (8) ~~"Single year phosphate agronomic rate" means the beneficial use rate of biosolids that will provide the phosphate needs for a realistic yield goal of the succeeding crop to be planted at the beneficial use site.~~
- (9)(8) "Sinkhole" means a surface depression produced when underlying material, such as carbonate bedrock, dissolves resulting in a direct conduit to ground water.
- (10)(9) "Sludge" means sludge, as defined in section 6111.01 of the Revised Code.
- (11)(10) "Sludge fee weight" means the weight of sewage sludge, in dry U.S. tons, excluding admixtures such as liming materials or bulking agents. Annual

**Annual** sewage sludge fees, as per paragraph (Y) of section 3745.11 of the Revised Code, are based on the reported sludge fee weight for the most recent calendar year.

~~(12)~~(11) "Sludge management" means sludge management, as defined in section 6111.01 of the Revised Code.

~~(13)~~(12) "Sludge materials" means sludge materials, as defined in section 6111.01 of the Revised Code.

~~(14)~~(13) "Snow covered ground" means soil or residue lying on the soil cannot be seen because of snow cover, or soil covered by one-half inch or more of ice.

~~(15)~~(14) "Soil phosphorus test" means a soil test procedure using the "Mehlich III extraction" or "Bray-Kurtz P1 extraction" ~~or the "Mehlich 3 extraction"~~ that produces an index of plant available phosphorus expressed in parts per million.

(15) "Soils prone to flooding" means an area of a beneficial use site that has flooded on average more than once every two years. Soils prone to flooding and the months when flooding is expected are determined by consulting table 1 of appendix A to rule 901:10-2-14 of the Administrative Code.

(16) "Specific oxygen uptake rate" or "SOUR" means the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge or sewage sludge material.

(17) "Surface disposal" means the placement of sewage sludge or biosolids on an area of land for disposal including, but not limited to, monofills, surface impoundments, lagoons not utilized for treatment, waste piles, or dedicated disposal sites for two years or more.

[Comment: A treatment lagoon is not considered a means for disposal.]

(18) "Surface waters of the state" means surface waters of the state, as defined in rule 3745-1-02 of the Administrative Code.

(T)

(1) "Total solids" means the materials in sewage sludge or sewage sludge material that remain as residue when the sewage sludge or sewage sludge material is dried in accordance with part 2540G of the "Standard Methods for the

Examination of Water and Wastewater."

(2) "Treatment works" means treatment works, as defined in section 6111.01 of the Revised Code.

(U)

~~(U)~~(1) "Underground injection control (UIC) class V drainage well" means underground injection control (UIC) class V drainage well as defined in rule 3745-34-04 of the Administrative Code.

(2) "Under the instruction and supervision" means that a beneficial user has instructed an individual as to when, where, and how to apply biosolids and is located within two hours travel time from the applicator at the time of application of biosolids.

(V)

(1) "Vector attraction" means the characteristic of biosolids that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

(2) "Volatile solids" means the amount of the total solids in sewage sludge lost when the sewage sludge is combusted, in accordance with part 2540G of "Standard Methods for the Examination of Water and Wastewater."

(W)

~~(W)~~(1) "Waters of the state" means waters of the state, as defined in section 6111.01 of the Revised Code.

(2) "Wetlands" means wetlands, as defined in section 6111.02 of the Revised Code.

(X) [Reserved.]

(Y) "Yard waste" means leaves, grass clippings, brush, garden waste, tree trunks, tree stumps, holiday trees, and prunings from trees or shrubs. Yard waste does not include industrial or agricultural processing waste.

(Z) [Reserved.]

(AA) Incorporation by reference. The text of the incorporated materials is not included in the rules contained in this chapter. The materials are hereby made a part of this chapter. For materials subject to change, only the version specified in this rule is incorporated. Any amendment or revision to a referenced document is not incorporated unless and until this rule has been amended to specify the new version.

(1) Availability. The materials incorporated by reference are available as follows:

- (a) Code of federal regulations (C.F.R.). Information and copies may be obtained by writing to: "U.S. Government Publishing Office Bookstore, 710 North Capitol Street N.W., Washington, D.C. 20403." The full text of the C.F.R. is also available in electronic format at <http://www.gpoaccess.gov/cfr/>. The C.F.R. compilations are also available for inspection and copying at most public libraries and "The State Library of Ohio."
- (b) Federal statutes. The full text is available in electronic format at <http://www.gpo.gov/fdsys><https://www.govinfo.gov>. These laws are also available for inspection and copying at most public libraries and "The State Library of Ohio."

(2) Incorporated materials.

- (a) Appropriate "Federal Statutes." The statutes listed in this rule are those versions of the laws amended through July 1, 20172024, including the following:
  - (i) Endangered Species Act, 16 U.S.C. sections 1533 to 1544.
  - (ii) Federal Water Pollution Control Act (commonly referred to as the "Clean Water Act"), 33 U.S.C. sections 1251 to 1387.
  - (iii) ~~Meat Inspection Act, 21 U.S.C. sections 601 to 695.~~
  - (iv) ~~Poultry Products Inspection Act, 21 U.S.C. sections 451 to 472.~~
- (b) Appropriate "Code of Federal Regulations." As used in this chapter "33 C.F.R." means Title 33 of the Code of Federal Regulations as amended through July 1, 20172024 and "40 C.F.R." means Title 40 of the Code of Federal Regulations as amended through July 1, 20172024.

~~(e) ASTMs.~~

~~"ASTM D 4994-89" means the American society for testing and material (ASTM) standard test methods for the standard practice for recovery of viruses from wastewater sludges, as approved in 2014. ASTM test methods are generally available in public libraries or from "ASTM International, 100 Barr Harbor drive, P.O. box C700, West Conshohocken, PA 19428-2959," at 610-832-9718, or on the internet at: [www.ASTM.org](http://www.ASTM.org).~~

~~(d)(c) Other governmental literature and methods.~~

(i) ~~"Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge," July 2003~~January 2023, Boczek, L., R. Herrmann, E. Resek, and T. Richman, EPA/625/R-92/013~~EPA/600/R-22/194~~. This document can be found at the following United States environmental protection agency web link: <https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge><https://www.epa.gov/biosolids/pathogens-and-vector-attraction-sewage-sludge>

[Comment: The "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" document is also known as the "Whitehouse Document."].

(ii) ~~"Guide to Field Storage of Biosolids," July 2000.~~EPA/8832-B-00-007. This document can be found at the following United States environmental protection agency web link: <https://www.epa.gov/biosolids/guide-field-storage-biosolids>.

(iii) ~~"Recommended Standards for Wastewater Facilities" means "Recommended Standards for Wastewater Facilities, 2014 Edition, Great Lakes - Upper Mississippi River, Board of State and Provincial Public Health and Environmental Managers, 2014."~~ This document can be found on the internet at: <https://www.health.state.mn.us/communities/environment/water/tenstates/standards>

(ii) ~~"Kellogg Soil Survey Laboratory Methods Manual, Version 5.0," 2014. United States department of agriculture. This document is available on the internet at: <https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>.~~

(iii) ~~"Method number 1613B" or United States environmental protection agency's method 1613B "Tetra through Octa Chlorinated Dioxins and Furans by Isotope Dilution~~

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~~HRGC/HRMS," revised October 1994. This document may be obtained from: "National Technical Information Service No. PB93-236024, (800) 553-NITS, or Educational Resources Information Center Number W-105, (800) 443-ERIC." Method 1613B can also be obtained from the following web link: <https://www.epa.gov/nseep>.~~

- ~~(iv) "Method number 1668A" or United States environmental protection agency's "Method 1668A Interlaboratory Validation Study Report," revised March 2010. This document may be obtained from: "Office of Water Methods and Guidance Diskette 2, Office of Water Resource Center, (202) 260-7786." Method number 1668A may also be obtained from the following web link: <https://www.epa.gov/nseep>.~~
- ~~(v) "Method 8082A" or United States environmental protection agency method 8082A "PCBs by Gas Chromatography, revised February 2007." This method can be found on the internet at: <https://www.epa.gov/homeland-security-research/epa-method-8082a-sw-846-polychlorinated-biphenyls-pebs-gas-chromatography>~~
- ~~(vi) "Methods for Chemical Analysis of Water and Wastes" or United States environmental protection agency's method 160.3 "Methods for Chemical Analysis of Water and Wastes," revised March 1983. This document can be found on the United States environmental protection agency web site at the following link: <https://www.epa.gov/nseep>.~~
- ~~(vii) "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, U.S. EPA 600/1-87-014, 1988." This document is available on the internet at: [www.epa.gov/ncpihom/](http://www.epa.gov/ncpihom/).~~
- ~~(viii) Part 9260D, "Standard Methods for the Examination of Water and Wastewater" or Kenner, B.A. and H.P. Clark, "Detection and Enumeration of *Salmonella* and *Pseudomonas aeruginosa*," journal of the water pollution control federation, vol. 46, no. 9, September 1974, pp. 2163-2171. Water environment federation, 601 Wythe street, Alexandria, VA 22314.~~
- ~~(ix) "Standard Methods for the Examination of Water and Wastewater," 23rd Edition, American Public Health Association, American Water Works Association and Water Environment Federation, 2017. This document is available on the internet at: [www.standardmethods.org/](http://www.standardmethods.org/).~~

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(x) ~~"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods"~~ means ~~"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA publication SW-846, revision 2, November 2004."~~ This document is available on the internet at: [www.epa.gov/sw-846/main.htm](http://www.epa.gov/sw-846/main.htm).