

3745-40-01

**Definitions.**

(A) "40 C.F.R." means Title 40 of the Code of Federal Regulations, effective June 1, 2010.

[Comment: The Code of Federal Regulations can generally be found in public libraries, and can be viewed electronically online at: [www.gpoaccess.gov/cfr/index.html](http://www.gpoaccess.gov/cfr/index.html) and purchased by writing to: "Superintendent of Documents. Attn: New Orders, PO Box 371954, Pittsburgh, PA 15250-7954."]

(B) "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.

(C) "Agronomic benefit" means agronomic benefit, as defined in section 6111.01 of the Revised Code.

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined agronomic benefit as follows: "Agronomic benefit" means any process that promotes or enhances plant growth and includes, but is not limited to, a process that increases soil fertility and moisture retention.]

(D) "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:

(1) Nutrient content of the biosolids to be applied;

(2) Nutrient needs of the current or planned crops; and

(3) Nutrient holding capacity of the soil.

(E) "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.

(F) "Animal waste" means animal excreta, bedding, wash waters, waste feed, and silage drainage.

(G) "ASTM D 4994-89" means the American society for testing and material (ASTM) standard test methods for standard practice for recovery of viruses from wastewater sludges, as that standard was approved in 2002. 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 610/832-9555, or on the internet at: [www.ASTM.org](http://www.ASTM.org).

(H) "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.

- (I) "Available water capacity" means the capacity of soils to hold water available for use by most plants.
- (J) "Bedrock" means any continuous or connected solid rock exposed at the surface of the earth or covered by soil or glacial deposits.
- (K) "Beneficial use" 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.
- (L) "Beneficial use site" means an authorized beneficial use site 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, during a hauling event.
- (M) "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.
- (N) "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, class B or bulk exceptional quality biosolids.
- (O) "Biosolids" means sewage sludge that has been treated for beneficial use.
- (P) "BPR Biosolids" means biosolids generated from a wastewater treatment process at a treatment works in which only biological treatment was used to remove phosphorus from the wastewater.
- (Q) "Bulk exceptional quality biosolids" means more than three hundred dry tons of exceptional quality biosolids beneficially used during a crop year on a beneficial use site that is utilized for the production of:
- (1) Feed crops;
  - (2) Fiber crops;
  - (3) Food crops; or
  - (4) Pasture land.

- (R) "Class B biosolids" means class B biosolids, as defined in rule 3745-40-04 of the Administrative Code.
- (S) "Commercial septage" means liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives sewage from a commercial establishment.
- (T) "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.
- (U) "Cover crop" means a small grain crop, such as oats, wheat, or barley, not grown for harvest.
- (V) "Crop year" means the period of time for a particular crop to be planted and harvested, or one year's time, whichever is shorter.
- (W) "Cumulative pollutant loading rate" means the maximum amount of an inorganic pollutant that can be beneficially used at a beneficial use site.
- (X) "Dioxin" means all of the seven 2, 3, 7, 8-chlorinated dibenzo-p-dioxin congeners, ten 2, 3, 7, 8-chlorinated dibenzofuran congeners, and twelve coplanar polychlorinated biphenyl congeners in table 1 of this rule.

Table 1

<u>CAS number</u>	<u>Congener</u>
<u>1746-01-6</u>	<u>2, 3, 7, 8-tetrachlorodibenzo-p-dioxin</u>
<u>40321-76-4</u>	<u>1, 2, 3, 7, 8-pentachlorodibenzo-p-dioxin</u>
<u>39227-28-6</u>	<u>1, 2, 3, 4, 7, 8-hexachlorodibenzo-p-dioxin</u>
<u>57653-85-7</u>	<u>1, 2, 3, 6, 7, 8-hexachlorodibenzo-p-dioxin</u>
<u>19408-74-3</u>	<u>1, 2, 3, 7, 8, 9-hexachlorodibenzo-p-dioxin</u>
<u>35822-46-9</u>	<u>1, 2, 3, 4, 6, 7, 8-heptachlorodibenzo-p-dioxin</u>
<u>3268-87-9</u>	<u>1, 2, 3, 4, 6, 7, 8, 9-octachlorodibenzo-p-dioxin</u>
<u>51207-31-9</u>	<u>2, 3, 7, 8-tetrachlorodibenzofuran</u>
<u>57117-41-6</u>	<u>1, 2, 3, 7, 8-pentachlorodibenzofuran</u>
<u>57117-31-4</u>	<u>2, 3, 4, 7, 8-pentachlorodibenzofuran</u>

<u>70648-26-9</u>	<u>1, 2, 3, 4, 7, 8-hexachlorodibenzofuran</u>
<u>57117-44-9</u>	<u>1, 2, 3, 6, 7, 8-hexachlorodibenzofuran</u>
<u>72918-21-9</u>	<u>1, 2, 3, 7, 8, 9-hexachlorodibenzofuran</u>
<u>60851-34-5</u>	<u>2, 3, 4, 6, 7, 8-hexachlorodibenzofuran</u>
<u>67562-39-4</u>	<u>1, 2, 3, 4, 6, 7, 8-heptachlorodibenzofuran</u>
<u>55673-89-7</u>	<u>1, 2, 3, 4, 7, 8, 9-heptachlorodibenzofuran</u>
<u>39001-02-0</u>	<u>1, 2, 3, 4, 6, 7, 8, 9-octachlorodibenzofuran</u>
<u>32598-13-3</u>	<u>3, 3', 4, 4'-tetrachlorobiphenyl</u>
<u>70362-50-4</u>	<u>3, 4, 4', 5-tetrachlorobiphenyl</u>
<u>57465-28-8</u>	<u>3, 3', 4, 4', 5-pentachlorobiphenyl</u>
<u>32598-14-4</u>	<u>2, 3, 3', 4, 4'-pentachlorobiphenyl</u>
<u>31508-00-6</u>	<u>2', 3, 4, 4', 5-pentachlorobiphenyl</u>
<u>65510-44-3</u>	<u>2, 3', 4, 4', 5'-pentachlorobiphenyl</u>
<u>74472-37-0</u>	<u>2, 3, 4, 4', 5-pentachlorobiphenyl</u>
<u>32774-16-6</u>	<u>3, 3', 4, 4', 5, 5'-hexachlorobiphenyl</u>
<u>38380-08-4</u>	<u>2, 3, 3', 4, 4', 5-hexachlorobiphenyl</u>
<u>69782-90-7</u>	<u>2, 3, 3', 4, 4', 5'-hexachlorobiphenyl</u>
<u>52663-72-6</u>	<u>2, 3', 4, 4', 5, 5'-hexachlorobiphenyl</u>
<u>39635-31-9</u>	<u>2, 3, 3', 4, 4', 5, 5'-heptachlorobiphenyl</u>

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

(Z) "Discharge" means discharge of any pollutant or pollutants from any point source.

(AA) "Disposal" means the placement of either sewage sludge or biosolids into a landfill or an incinerator.

(BB) "Distribution" means the selling or giving away of exceptional quality biosolids that do not satisfy the definition of bulk exceptional quality biosolids.

(CC) "Domestic septage" means either liquid or solid material removed from a septic tank, cesspool, portable toilet, type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

(DD) "Drinking water source protection area for a community public water system using ground water" means the surface and subsurface area surrounding a community 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.

(EE) "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).

(FF) "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.

(GG) "Endangered Species Act" means "Endangered Species Act, 16 U.S.C. section 1533, as amended through June 1, 2010.

(HH) "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" means "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge, USEPA/625/R-92/013, revised July 2003," United States environmental protection agency, national center for environmental publications and information, 11029 Kenwood road, Cincinnati, OH 45242, and is available on the internet at: [www.epa.gov/nrmrl/pubs/625r92013/625R92013.pdf](http://www.epa.gov/nrmrl/pubs/625r92013/625R92013.pdf).

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

(II) "Exceptional quality biosolids" means exceptional quality biosolids as defined in rule 3745-40-04 of the Administrative Code.

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

(KK) "Farm operator" means the person who plants, grows, harvests, or otherwise manages feed crops, fiber crops, food crops or pasture land on a beneficial use site.

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

(MM) "Fiber crops" means crops such as flax and cotton that are produced primarily for the production of products and not consumed by people or animals.

(NN) "Field storage" means the storage of biosolids in a field at a beneficial use site for no more than ninety days.

(OO) "Food crops" means crops consumed by people, including:

(1) Fruits;

(2) Vegetables; and

(3) Tobacco.

(PP) "Food scraps" means:

(1) Source-separated plant materials, including stems, leaves, vines, or roots, from an agricultural process;

(2) 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);

(3) 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); or

(4) 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.

(OO) "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 the appropriate "National Cooperative Soil Survey" publication, which is available at the following website: [soils.usda.gov/partnerships/ncss/](http://soils.usda.gov/partnerships/ncss/).

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

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

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

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

(UU) "Hauling event" means the removal of biosolids during a timeframe, which does not exceed thirty days, for beneficial use at a single beneficial use site.

(VV) "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 and a reclamation site located in a populated area (e.g., a construction site located in a municipality).

(WW) "Immediate incorporation" means "incorporation", as defined in paragraph (YY) of this rule, of biosolids within six hours after surface application.

(XX) "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.

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

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

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

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

(BBB) "Inert" refers to a substance that will not chemically react with anything under normal circumstances.

(CCC) "Injection" means the subsurface placement of liquid biosolids to a depth of four inches or greater into an authorized beneficial use site.

(DDD) "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.

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

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

(GGG) "Landfill" means a sanitary landfill facility, as defined in rules adopted under section 3734.02 of the Revised Code, that is licensed under section 3734.05 of the Revised Code.

(HHH) "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 the following:

- (1) Limestone;
- (2) Hydrated lime;
- (3) Burnt lime; or
- (4) Marl and shell.

(III) "Liquid biosolids" means biosolids that contain free liquids as determined by the paint filter test in accordance with method 9095B of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" also known as "SW 846." This document can be found on the United States environmental protection agency web site at the following link: [www.epa.gov/epawaste/hazard/testmethods/sw846/index.htm](http://www.epa.gov/epawaste/hazard/testmethods/sw846/index.htm).

(JJJ) "Low potential public exposure site" means agricultural land and land reclamation authorized beneficial use sites that restrict the general public's access.

(KKK) "Management plan" means a plan for the treatment, disposal, transfer or storage of sewage sludge or biosolids or the beneficial use of biosolids.

(LLL) "Manufactured inerts" means wastes such as plastic, metals, ceramics and other

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

(MMM) "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, "adult care facility" as defined in section 3722.01 of the Revised Code, "nursing facility" as defined in section 5111.20 of the Revised Code and similar facilities.

(NNN) "Multi-year phosphorus agronomic rate" means the beneficial use rate of biosolids that will provide the phosphorous needs for a realistic yield goal of multiple crops to be grown at the beneficial use site, but not to exceed three calendar years of planned crops.

(OOO) "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. In calculating the nitrogen agronomic rate, the permittee shall:

(1) Subtract the nitrogen credit to be given to the next crop, in accordance with values for previous crops; and

(2) Subtract the nitrogen that will be added in other forms.

[Comment: For beneficial use sites where a grass or legume cover crop is established or will be established after beneficial use of biosolids, the biosolids may still be beneficially used at the rates to provide the nitrogen requirements or nitrogen removal rates for the succeeding crop to be planted after the grass or legume cover crop.]

(PPP) "NPDES permit" means national pollutant discharge elimination system permit that has been approved and issued by the Ohio environmental protection agency.

(QQQ) "Nuisance odor" means an emission of any gas, vapor, aerosol or combination thereof from the management of sewage sludge or biosolids, in whatever 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.

(RRR) "Occupied building" means a structure, permanent in nature, occupied or capable of being occupied. "Occupied building" does not include "medical care facility" or any building that is part of a disposal system.

(SSS) "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges" means "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, USEPA 600/1-87-014, 1988." This document is available on the internet at: [www.epa.gov/ncepihom/](http://www.epa.gov/ncepihom/).

(TTT) "Organic Phosphorus Source Coefficient" means the multiplier used to adjust the organic phosphate application rate found in the phosphorus index. The multiplier is found in table 2 of this rule.

Table 2: Organic phosphate application rate multiplier

<u>Source of organic phosphorus</u>	<u>Organic phosphate application rate multiplier</u>
<u>Swine manure</u>	<u>1.0</u>
<u>Other manure</u>	<u>0.8</u>
<u>BPR biosolids</u>	<u>0.8</u>
<u>Other biosolids</u>	<u>0.4</u>

(UUU) "Pasture" means land on which animals feed directly on vegetation such as legumes, grasses, grain stubble or stover.

(VVV) "Pathogen" means a disease causing organism and includes, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

(WWW) "Pathogen equivalency committee" or "PEC" means a committee made up of United States environmental protection agency experts who review pathogen and vector attraction reduction issues and make recommendations to the appropriate permitting authority. The primary role of the PEC is to review proposals for processes to significantly reduce pathogens ("PSRP") and processes to further reduce pathogens ("PFRP") equivalency determinations and to offer guidance on the issues associated with pathogen and vector attraction reduction.

[Comment: The pathogen equivalency committee is referenced on page six of the document "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge." This document can be found on the internet at: [www.epa.gov/nrmrl/pubs/625r92013/625R92013.pdf](http://www.epa.gov/nrmrl/pubs/625r92013/625R92013.pdf)]

(XXX) "Permittee" means the holder of a valid NPDES permit or a management plan approved by the Director.

(YYY) "Person" means person as defined in section 6111.01 of the Revised Code.

[Comment: At the time of this rule adoption, section 1.59 of the Revised Code defined person as follows: "Person" includes an individual, corporation, business trust, estate, trust, partnership, and association. At the time of this rule adoption, section 6111.01 of the Revised Code defined person as follows: "Person" means the state, any municipal corporation, any other political subdivision of the state, any

person as defined in section 1.59 of the Revised Code, any interstate body created by compact, or the federal government or any department, agency, or instrumentality thereof.]

(ZZZ) "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).

(AAAA) "Phosphorus index" means the Ohio natural resources conservation service (NRCS) assessment technique, as adjusted using an organic phosphorus source coefficient, 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 Ohio NRCS phosphorus index can be found on the internet at: [www.agri.ohio.gov/Lepp/Regs/Appx/901-10-2-14%20appx%2024.pdf](http://www.agri.ohio.gov/Lepp/Regs/Appx/901-10-2-14%20appx%2024.pdf).

(BBBB) "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.

(CCCC) "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.

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

(EEEE) "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.

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

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

(HHHH) "Same day incorporation" means "incorporation", as defined in paragraph (YY) of this rule, of biosolids within twenty-four hours after surface application.

(III) "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 be part of a beneficial use application. Screenings should be disposed of within a landfill.]

(JJJ) "Sewage" means sewage, as defined in section 6111.01 of the Revised Code.

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined sewage as follows: "Sewage" means any liquid waste containing sludge, sludge materials, or animal or vegetable matter in suspension or solution, and may include household wastes as commonly discharged from residences and from commercial, institutional, or similar facilities.]

(KKKK) "Sewage sludge" means sewage sludge, as defined in division (Y) of section 3745.11 of the Revised Code.

[Comment: At the time of this rule adoption, section 3745.11 of the Revised Code defined sewage sludge as follows: "Sewage sludge" means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works as defined in section 6111.01 of the Revised Code. "Sewage sludge" includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes. "Sewage sludge" does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator, grit and screenings generated during preliminary treatment of domestic sewage in a treatment works, animal manure, residue generated during treatment of animal manure, or domestic septage.]

(LLLL) "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.

(MMMM) "Single-year phosphorous agronomic rate" means the beneficial use rate of biosolids that will provide the phosphorous needs for a realistic yield goal of the succeeding crop to be planted at the beneficial use site.

[Comment: For beneficial use sites where a grass or legume cover crop is established or will be established after beneficial use of biosolids, the biosolids may still be beneficially used at the rates to provide the phosphorous needs for the succeeding crop to be planted after the grass or legume cover crop.]

(NNNN) "Sinkhole" means a surface depression produced when underlying material,

such as carbonate bedrock, dissolves resulting in a direct conduit to ground water.

(OOOO) "Sludge" means sludge, as defined in section 6111.01 of the Revised Code.

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined sludge as follows: "Sludge" means sewage sludge and a solid, semi-solid, or liquid residue that is generated from an industrial wastewater treatment process and that is applied to a beneficial use site for agronomic benefit. "Sludge" does not include ash generated during the firing of sludge in a sludge incinerator, grit and screening generated during preliminary treatment of sewage in a treatment works, animal manure, residue generated during treatment of animal manure, or domestic septage.]

(PPPP) "Sludge fee weight" means the weight of sewage sludge, in dry U.S. tons, excluding admixtures such as liming materials or bulking agents. 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.

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

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined sludge management as follows, "Sludge management" means the use, storage, treatment, or disposal of, and management practices related to, sludge and sludge materials.]

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

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined sludge materials as follows: "Sludge materials" means solid, semi-solid, or liquid materials derived from sludge and includes products from a treatment works that result from the treatment, blending, or composting of sludge.]

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

(TTTT) "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.

(UUUU) "Standard Methods for the Examination of Water and Wastewater" means "Standard Methods for the Examination of Water and Wastewater, 21st Edition, American Public Health Association, American Water Works Association and Water Environment Federation, 2005." This document is available on the internet at: [www.standardmethods.org/](http://www.standardmethods.org/).

(VVVV) "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.]

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

(XXXX) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" means "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA publication SW-846, third edition (September 1994)." This document is available on the internet at: [www.epa.gov/sw-846/main.htm](http://www.epa.gov/sw-846/main.htm).

(YYYY) "Total solids" means the materials in sewage sludge or sewage sludge material that remain as residue when the sewage sludge or sewage sludge material (dry weight basis) is dried at one hundred three to one hundred five degrees Celsius (two hundred seventeen to two hundred twenty-one degrees Fahrenheit).

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

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined treatment works as follows: "Treatment works" means any plant, disposal field, lagoon, dam, pumping station, building sewer connected directly to treatment works, incinerator, or other works used for the purpose of treating, stabilizing, blending, composting, or holding sewage, sludge, sludge materials, industrial waste, or other wastes, except as otherwise defined.]

(AAAA) "Underground injection control (UIC) class V drainage well" means a drainage well used to drain surface fluid, primarily storm runoff, into a subsurface formation which may include, but is not limited to, an agricultural or storm water drainage well and an identified unsealed gas/oil well.

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

(CCCC) "Volatile solids" means the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at five hundred fifty degrees Celsius (one thousand twenty-two degrees Fahrenheit) in the presence of excess air.

(DDDD) "Water Pollution Control Act" means the "Federal Water Pollution Control Act" (commonly referred to as the "Clean Water Act") 33 U.S.C. 1251 et seq. as amended through July 1, 2010.

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

[Comment: At the time of this rule adoption, section 6111.01 of the Revised Code defined waters of the state as follows: "Waters of the state" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters that do not combine or effect a junction with natural surface or underground waters.]

(FFFF) "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.

Replaces: 3745-40-01

Effective:

R.C. 119.032 review dates:

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Certification

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Date

Promulgated Under: 119.03  
Statutory Authority: 6111.03, 6111.042  
Rule Amplifies: 6111.03, 6111.042  
Prior Effective Dates: 4/8/2002, 10/1/2007