CHAPTER 62-640
BIOSOLIDS

62-640.100 Scope, Intent, Purpose, and Applicability.

(1) through (4) No change.

(5) Applicability.

(a) though (b) No change.

(c) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to all septage management facilities that ~~treat more than 10,000 gallons per day monthly average daily flow or more than 20,000 gallons in a single day, and that~~ apply septage to agricultural sites or reclamation sites. Requirements in this chapter shall also apply to appliers of septage, and to operators or owners of an agricultural site or reclamation site which receive septage from facilities permitted under this chapter.

(d) through (e) No change.

(f) Unless specifically provided otherwise in this chapter, facilities and biosolids application sites ~~Facilities which have submitted a complete wastewater permit application, or which have received an initial permit before August 29, 2010, are considered to be existing facilities and~~ shall meet the requirements of this chapter in accordance with paragraphs (g) and (h), below.

(g) New or renewed facility or biosolids land application site permits issued after July 1, 2020, shall meet the requirements of this chapter no later than within one year of (effective date of the rule).

~~(g) Unless specifically provided otherwise in this chapter, existing facilities in Florida shall comply with the requirements of this chapter at the time of renewal of the wastewater permit. To facilitate the transition to land application site permits, for those wastewater facility permits renewed between August 29, 2010 and January 1, 2013, the Department shall include compliance schedules to achieve compliance with the land application site permitting requirements included in Rules 62-640.300, 62-640.500, 62-640.650, 62-640.700, F.A.C., by no later than January 1, 2013. Any such renewed permits shall contain conditions for the land application of biosolids based on the provisions of Chapter 62-640, F.A.C., as amended on 3-30-98, hereby adopted and incorporated by reference, during the period of the compliance schedule. A copy of Chapter 62-640, F.A.C., as amended on 3-30-98, is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices.~~

(h) All permits for facilities and biosolids land application sites shall meet the requirements of this chapter within two years of (effective date of the rule).

~~(h) Regardless of paragraph (g), above, no later than January 1, 2013, all facilities that land apply biosolids shall use permitted application sites.~~

~~(i) After an application site is permitted, management and application of biosolids at the site shall be in accordance with the application site permit, which supersedes the site management and application requirements of any existing facility permits.~~

(i)~~(j)~~ Biosolids or biosolids products which are generated outside of Florida but imported to Florida are subject to the provisions of this chapter ~~beginning August 29, 2010~~.

(j)~~(k)~~ No change.

(6) Other Applicable Rules and Requirements.

(a) The land application of biosolids shall be consistent with the applicable requirements of basin management action plans (BMAPs) adopted in accordance with Sections 403.067(7), and 373.807, F.S.

~~(a) Septage management facilities that treat 10,000 gallons per day or less on a monthly average daily flow basis and no more than 20,000 gallons in a single day are regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C. Land application of septage treated by these facilities is also regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C.~~

(b) through (h) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.100, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.200 Definitions.

Terms used in this chapter shall have the meaning specified below. The meaning of any term not defined below may be taken from definitions in other rules of the Department.

(1) through (5) No change.

(6) "Biosolids" means the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility, formerly known as "domestic wastewater residuals" or "residuals." Not included is the treated effluent or reclaimed water from a domestic wastewater treatment plant. Also not included are solids removed from pump stations and lift stations, screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities, other solids as defined in subsection 62-640.200(30)~~62-640.200(31)~~, F.A.C., and ash generated during the incineration of biosolids. Biosolids include products and treated material from biosolids treatment facilities and septage management facilities regulated by the Department.

(7) through (8) No change.

(9) "Capacity Index" means a measure of the capacity of soil to store phosphorus which is determined using soil test Mehlich-3 extraction results for phosphorus, iron, and aluminum in the following equation (units for the capacity index (CI) and for soil test results are mg/kg).

$$Capacity\ Index\ (CI) = \left[0.1 - \frac{\frac{SoilTestP}{31}}{\frac{SoilTestFe}{56} + \frac{SoilTestAL}{27}}\right] * \left[\frac{SoilTestFe}{56} + \frac{SoilTestAl}{27}\right] * 31$$

(9) through (17) renumbered (10) through (18) No change.

~~(18) "Existing application site" means a site approved for land application or land reclamation in a wastewater facility permit active on August 29, 2010 or included in a complete permit application submitted before August 29, 2010.~~

(19) through (27) No change.

(28) "Liquid biosolids" means any biosolids that are less than 12% solids by weight, or that are determined to contain free liquids as defined by Method 9095B (Paint Filter Liquids Test), November 2004, as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846), January 3, 2008, 73 FR 486, ~~which is~~ hereby adopted and incorporated by reference, and ~~is~~ available from http://www.flrules.org/Gateway/reference.asp?No=Ref, from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or from www.epa.gov ~~or any of the Department's District Offices~~.

(29) through (32) No change.

(33) "Percent Water Extractable Phosphorus" (PWEP) means the percentage of phosphorus that is water extractable in a biosolids sample. PWEP is equal to water extractable phosphorus (WEP) given in % dry weight basis, divided by total phosphorus (TP) given in % dry weight basis.

(34)~~(33)~~ No change.

(35)~~(34)~~ "pH" means as defined in Rule 62-600.200, F.A.C., except for the purposes of Pathogen Reduction and Vector Attraction Reduction under Rule 62-640.600, F.A.C., for which "pH" means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25 degrees Centigrade (i.e. Celsius) or measured at another temperature and then converted to an equivalent value at 25 degrees Centigrade.

(35) through (40) renumbered (36) through (41) No change.

(42) "Seasonal high water" means the elevation to which the ground and surface water may be expected to rise due to a normal wet season.

(43)~~(41)~~ No change.

(44)~~(42)~~ "Septage management facility" means a stationary facility that treats only domestic septage or combinations of domestic septage, food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marinas, and onsite sewage treatment and disposal systems, before use or land application. ~~Septage management facilities that are regulated by the Department are as described in paragraph 62-640.100(5)(c), F.A.C.~~

(43) through (48) renumbered (45) through (50) No change.

(51)~~(49)~~ "Water table" means the upper surface of the zone of saturation where the body of ground water is not confined by an overlying impermeable zone ~~groundwater pressures are equal to atmospheric pressure, except where that surface is formed by an impermeable stratum~~.

(50) through (51) renumbered (52) through (53) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855,403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.200, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.210 General Technical Guidance and Forms.

(1) Unless specifically referenced elsewhere in this chapter, the following publications are listed for informational purposes as technical guidance to assist facilities, appliers, distributors and marketers, site managers, and site owners in meeting the requirements of this chapter. Publications or portions of publications containing enforceable criteria are specifically referenced elsewhere in this chapter. Information in the publications listed below does not supersede the specific requirements of this chapter. Members of the public may request and obtain copies of the publications listed below by contacting the appropriate publisher at the address indicated. Copies of the publications are on file and available for review during normal business hours at the Department of Environmental Protection, Wastewater Management Program, M.S. 3545 ~~Domestic Wastewater Section, M.S. 3540~~, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and in the Department's district and branch offices.

(a) No change.

(b) Title 40, Code of Federal Regulations, Protection of Environment, 1993, Part 503, "Standards for the Use and Disposal of Sewage Sludge," revised as of October 22, 2015~~April 9, 2007~~ and effective on December 15, 2015~~April 25, 2007~~, www.gpoaccess.gov/cfr/index.html.

(c) through (k) No change.

(l) USDA Natural Resources Conservation Service, 2012~~1999~~, "General Manual, Title 190, Part 402 – Nutrient Management," USDA-NRCS, Washington, DC, www.nrcs.usda.gov/technical.

(m) USDA Natural Resources Conservation Service – Florida, 2012~~2007~~, "Field Office Technical Guide – Nutrient Management, Code 590", USDA-NRCS-FL, Gainesville, Florida, www.fl.nrcs.usda.gov/technical.

(n) USDA Natural Resources Conservation Service – Florida, 2018~~2004~~, "Field Office Technical Guide – Waste Recycling ~~Utilization~~, Code 633," USDA-NRCS-FL, Gainesville, Florida, www.fl.nrcs.usda.gov/technical.

(o) through (p) No change.

(q) Kleinman, P., D. Sullivan, A. Wolf, R. Brandt, Z. Dou, H. Elliott, J. Kovar, A. Leytem, R. Maguire, P. Moore, L. Saporito, A. Sharpley, A. Shober, T. Sims, J. Toth, G. Toor, H. Zhang, T. Zhang. 2007. "Selection of a Water Extractable Phosphorus Test for Manures and Biosolids as an Indicator of Runoff Loss Potential," Journal of Environmental Quality 36: 1357-1367, https://dl.sciencesocieties.org/publications/jeq

(r) Wolf, A.M., P.A. Moor, P.J.A.. Kleinman, D.M. Sullivan, 2009. "Water-Extractable Phosphorus in Animal Manure and Biosolids," Methods of Phosphorus Analysis for Soils, Sediments, Residuals and Waters, Second Edition, Souther Cooperative Series Bulletin, P76-80, https://sera17dotorg.files.wordpress.com/2015/02/sera-17-methods-for-p-2009.pdf.

(s) Zhang, H., D.H. Hardy, R. Mylavarapu, and J.J. Wang, 2014, "Mehlich-3," Soil Test Methods From the Southeastern United States, Southern Cooperative Series Bulletin No. 419, http://aesl.ces.uga.edu/sera6/PUB/MethodsManualFinalSERA6.pdf.

(t) Mylavarapu, R., T. Obreza, K. Morgan, G. Hochmuth, V. Nair, and A. Wright, 2014, "Extraction of Soil Nutrients Using Mehlich-3 Reagent for Acid-Mineral Soils of Florida," UF/IFAS Document SL 407, https://edis.ifas.ufl.edu/ss620 or should it

behttps://edis.ifas.ufl.edu.

(2) Forms. The forms ~~and instructions~~ used by the Department are listed in this rule. The rule numbers are the same as the form numbers. Copies of these forms ~~and instructions~~ may be obtained by contacting the appropriate District Office or by contacting the ~~writing to the Bureau of Wastewater Facilities, M.S. 3535,~~ Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available online at https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-forms, or from http://www.flrules.org/Gateway/reference.asp?No=Ref ~~the Department's District Offices and from the web site for the Department's Division of Water Resource Management at www.dep.state.fl.us/water. The monitoring information reported on the forms listed below may be submitted in another format, such as electronic, if requested by the permittee and if approved by the Department as being compatible with data entry into the Department's computer system~~. The Department hereby adopts and incorporates by ~~reference in this section~~ the following forms and instructions:

(a) Treatment Facility Biosolids Plan, DEP Form 62-640.210(2)(a), effective (effective date of the rule)~~August 29, 2010,~~ available at http://www.flrules.org/Gateway/reference.asp? No=Ref.

(b) Treatment Facility Biosolids Annual Summary, DEP Form 62-640.210(2)(b), effective (effective date of the rule)~~August 29, 2010~~, available at http://www.flrules.org/Gateway/reference.asp? No=Ref.

(c) Biosolids Application Site Annual Summary, DEP Form 62-640.210(2)(c), effective (effective date of the rule) ~~August 29, 2010~~, available at http://www.flrules.org/Gateway/reference.asp? No=Ref.

(d) Biosolids Site Permit Application, DEP Form 62-640.210(2)(d), effective (effective date of the rule)~~August 29, 2010~~, available at http://www.flrules.org/Gateway/reference.asp? No=Ref.

(e) Biosolids Application Site Log, DEP Form 62-640.210(2)(e), effective (effective date of the rule)~~August 29, 2010~~, available at http://www.flrules.org/Gateway/reference.asp? No=Ref.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.210, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.300 General Requirements.

(1) Facilities that receive or generate biosolids shall have a valid Department permit prior to treatment, land application, distribution and marketing, or disposal of biosolids. Treatment f~~F~~acility permits shall specify the use or disposal of the facility's biosolids. Biosolids shall be managed in accordance with the facility permit and the requirements of this chapter.

(2) Treatment Facility Permit for Facilities that Land Apply Biosolids.

(a) No change.

(b) The Treatment Facility Biosolids Plan, Form 62-640.210(2)(a), ~~effective August 29, 2010, hereby~~ adopted and incorporated by reference in subsection 62-640.210(2), F.A.C., shall be submitted with the permit application to identify sites where the facility's biosolids are permitted to be land applied. ~~This form is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices.~~

(c) No change.

(3) Biosolids Land Application Site Permit.

(a) through (b) No change.

(c) Applicants for a permitted biosolids application site shall submit the Biosolids Site Permit Application, Form 62-640.210(2)(d), ~~effective August 29, 2010, hereby adopted and~~ incorporated by reference in subsection 62-640.210(2), F.A.C., the applicable fee, and supporting documentation to the appropriate District Office of the Department or delegated local program responsible for the geographic area in which the application site is located. ~~This form is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices.~~

1. through 2. No change.

(d) All biosolids application site permit applications shall be considered projects of heightened public interest in accordance with subsection 62-110.106(6), F.A.C., and subparagraph 62-110.106(7)(a)1., F.A.C.

(e)~~(d)~~ No change.

(f)~~(e)~~ New application sites shall be permitted prior to use. ~~Existing application sites shall be permitted prior to applying biosolids~~

~~from facilities required to use a permitted site in accordance with subsection 62-640.300(2), F.A.C. All existing application sites shall be permitted no later than January 1, 2013.~~

(g) All permited biosolids land application sites shall be enrolled in the Florida Department of Agriculture and Consumer Services (FDACS) best management practices (BMP) program or be within an agricultural operation enrolled in the program for the applicable commodity type.

(4) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.300, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.400 Prohibitions.

(1) through (13) No change.

(14) Biosolids shall not be applied on soils that have a seasonal high water table less than 6 inches from the soil surface or within 6 inches of the intended depth of biosolids placement, unless a Department-approved nutrient management plan and water quality monitoring plan provide reasonable assurance that the land application of biosolids at the site will not cause or contribute to a violation of the state's surface water quality standards or ground water quality standards.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.400, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.500 Nutrient Management Plan (NMP).

(1) A site-specific NMP shall be submitted to the Department with the permit application for an agricultural site. For sites enrolled and participating in a Florida Department of Agriculture and Consumer Services (FDACS) Best Management Practices (BMP) program, a conservation plan or NMP prepared for the purposes of the BMP can be submitted as the site-specific NMP if the plan meets the NMP requirements given in subsections (4) through (7)~~(8)~~, below.

(2) USDA-NRCS-Florida Field Office Technical Guide – Nutrient Management, Code 590, November 2012~~September 2007~~, listed in paragraph 62-640.210(1)(m), F.A.C., is available to provide technical guidance in the preparation of NMPs from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 ~~or any of the Department's District Offices~~.

(3) through (4) No change.

(5) The NMP shall meet the requirements of this chapter and shall:

(a) Include aerial site photograph(s)/imagery or site map(s), and a soil survey map of the site;

(b) No change.

(c) Include a description of how the NMP complies with any applicable basin management action plans (BMAPs) adopted under Sections 403.067(7), and 373.807, F.S.

(d)~~(c)~~ No change.

(e)~~(d)~~ Specify ~~Identify~~ the frequency interval for soil fertility testing. The interval shall be at least once annually ~~every five years with consideration for more frequent testing if increases in soil phosphorus levels are expected~~;

(f) Establish specific rates of application of biosolids based on nitrogen and phosphorus as well as procedures to land apply biosolids and all other nutrient sources to each application zone. The NMP shall address application rates for the period covered by the effective and expiration dates of the biosolids site permit, at a minimum. The final rate of biosolids to be applied to an application zone shall be not exceed either of the nitrogen-based rate or the phosphorus-based rate (i.e the rate is limited to the more restrictive of the two nutrient-based rates), unless the applicant can provide reasonable assurance that applying at a higher rate is protective of water quality. As part of establishing the nitrogen and phosphorus-based application rates, the NMP shall include the following items.

1. The NMP shall identify the recommended crop nutrient needs for nitrogen and phosphorus (i.e. crop nutrient demand) for the crops to be grown on each application zone based on IFAS recommendations or using the following values as a guide,

Crop	Nitrogen: lbs/acre/growing season	Phophorus (P_2O_5): lbs/acre/growing season

Improved perennial grasses (i.e.maintenance fertilization of established pastures) - Grazed	160	40
Improved perennial grasses (i.e.maintenance fertilization of established hayfields) – Hay or silage (assuming 4 harvests)	320	80
Cool season annual grasses (e.g. grazed small grains, ryegrass, fescue)	160	80
Warm season annual grasses (e.g. sorghum-sudan hydrid or pearl millet) - Grazed	160	40
Warm season annual grasses (e.g. sorghum-sudan hydrid or pearl millet) - Hay or silage (4 harvests)	320	80

2. The NMP shall identify the current and planned plant production sequence or crop rotation for each application zone for the period of the biosolids site permit, at a minimum.

3. The NMP shall include realistic annual yield goals for each crop identified for each application zone, if applicable.

4. The NMP shall include the soil phosphorus storage "capacity index" (CI) and soil phosphorus results from the most recent soil fertility testing for each application zone. The CI and soil phosphorus results shall be based on Mehlich-3 extraction results for phosphorus, iron, and aluminum.

5. The NMP shall include a listing and quantification of all nutrient sources for each application zone.

6. The NMP shall include the percent water extractable phosphorus (PWEP) of each anticipated biosolids source (permittees may use a weighted average or estimated weighted average when biosolids applied to an application zone will be from multiple sources),

7. The crop nutrient demand phosphorus may be adjusted as given in a. and b. below, based on the soil phosphorus storage capacity index and the biosolids percent water extractable phosphorus (PWEP) when determining biosolids application rates. The adjustment to the crop nutrient demand phosphorus results in the amount of total phosphorus in lbs/acre that can be applied from biosolids (e.g., if doubling is allowed, a crop nutrient demand of 40 lbs P_2O_5/acre/year results in an allowed loading of 80 lbs total P_2O_5/acre/year). The use of PWEP and water extractable phosphorus values to adjust biosolids phosphorus loading is limited to sub-sub-subparagraph 62-640.500(5)(f)7.a.(I), F.A.C.,

a. When the PWEP of biosolids is less than 14%, one of the following may be used:

(I) When the soil phosphorus storage capacity index for an application zone is greater than 40 mg/kg, the PWEP value for the biosolids being applied may be used to adjust the crop nutrient demand phosphorus by dividing the crop nutrient demand phosphorus by the PWEP (in decimal form) to determine the amount of total phosphorus allowed to be applied. Alternatively, water extractable phosphorus could be used instead of PWEP to determine the amount of biosolids allowed to be applied based on the crop nutrient demand.

(II) When the soil phosphorus storage capacity index is at least 20 mg/kg and up to 40 mg/kg, the amount of crop nutrient demand phosphorus may be doubled to determine the amount of total phosphorus allowed to be applied.

(III) When soil phosphorus storage capacity index is greater than 0 mg/kg but less than 20 mg/kg, the amount of crop nutrient demand phosphorus may be increased by 50 percent to determine the amount of total phosphorus allowed to be applied.

(IV) When the soil phosphorus capacity index is less than 0 mg/kg, the amount of phosphorus shall not be adjusted (i.e. the crop nutrient demand phosphorus equals the amount of total phosphorus allowed to be applied).

b. When the PWEP of biosolids is 14% or greater, the amount of phosphorus shall not be adjusted unless the the soil phosphorus storage capacity index is greater than 40 mg/kg, in which case the crop nutrient demand phosphorus may be increased by 50 percent to determine the amount of total phosphorus allowed to be applied.

8. When considering the availability of nitrogen in biosolids, once the amount of plant available nitrogen to be supplied by biosolids has been determined (i.e. the crop nitrogen demand has been adjusted to take other sources of nitrogen into account), this amount may be multiplied by a factor of 1.5 (i.e. a 50 percent increase) to determine the amount of total nitrogen that may be supplied by biosolids

9. The calcium carbonate equivalency of any alkaline-treated biosolids and recommended lime application rates for each application zone,

10. Septage application rates for application zones with a soil capacity greater than 0 mg/kg shall be no more than 30,000 gallons per acre or no more than 40,000 gallons per acre per year for the septage not containing food establishement sludge. Septage application rates for application zones with a soil phosphours storage capacity index less than 0 mg/kg shall be no more than 12,000 gallons per acre per year.

11. The method of land application for each application zone; and,

12. The methodology and calculations used to determine the application rates for each application zone.

~~(e) Establish specific rates of application and procedures to land apply biosolids and all other nutrient sources to each application zone. The NMP shall address application rates for a projected five-year period, at a minimum. As part of establishing the application rates, the NMP shall include:~~

~~1. A specific assessment of the potential for phosphorus movement from each application zone,~~

~~2. A listing and quantification of all nutrient sources for each application zone,~~

~~3. The availability of the nitrogen in the biosolids being applied, any nitrogen available from biosolids applications in previous years, and any nitrogen available in subsequent years covering the minimum five year period of the NMP,~~

~~4. The current and planned plant production sequence or crop rotation for each application zone for the next five years, at a minimum,~~

~~5. Realistic annual yield goals for each crop identified for each application zone,~~

~~6. The recommended nitrogen and phosphorus application rates (i.e. nutrient demand) for the crops to be grown on each application zone,~~

~~7. The calcium carbonate equivalency of any alkaline treated biosolids and recommended lime application rates for each application zone,~~

~~8. The method of land application for each application zone; and,~~

~~9. The methodology and calculations used to determine the application rates for each application zone.~~

~~(6) When considering the availability of nitrogen in biosolids, the following shall be accepted by the Department:~~

~~(a) The nitrogen calculation methods found in Chapter 7 of the U.S. Environmental Protection Agency *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, which is hereby adopted and incorporated by reference. All calculations and values used in the calculations shall be fully documented and submitted with the NMP. These values shall include a complete nitrogen analysis (i.e. organic nitrogen (Org-N), ammonium (NH_4-N), and nitrate (NO_3-N)) for all facilities that will use the site, or~~

~~(b) In lieu of using the full calculation method for nitrogen in Chapter 7 of the U.S. Environmental Protection Agency *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, once the amount of plant available nitrogen to be supplied by biosolids has been determined (i.e. the crop nitrogen demand has been adjusted to take other sources of nitrogen into account), this amount may be multiplied by a factor of 1.5 (i.e. a 50 percent increase) to determine the amount of total nitrogen that may be supplied by biosolids.~~

(7) through (8) renumbered (6) through (7) No change.

(8) The NMP for a permitted biosolids land application site shall be reviewed annually and any revisions shall be provided to the Department. Revisions not requiring a permit revision in accordance with paragraph 62-640.300(3)(b), F.A.C., shall be provided to the Department with the site annual summary submitted in accordance with paragraph 62-640.650(5)(d), F.A.C., or earlier. Any revisions requiring a permit modification in accordance with paragraph 62-640.300(3)(e), F.A.C., shall be completed by a certified nutrient management planner or by a professional engineer licensed in the State of Florida.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.500, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.600 Pathogen Reduction and Vector Attraction Reduction.

All biosolids applied to the land or distributed and marketed shall be treated with a treatment process designed to reduce pathogens and achieve vector attraction reduction in accordance with the requirements of this section. The Department hereby adopts and incorporates by reference the pathogen and vector attraction reduction requirements of 40 C.F.R. 503.32 and 503.33, revised as of October 22, 2015~~April 9, 2007~~, and effective on December 15, 2015~~April 25, 2007~~, except for the site restrictions in 40 C.F.R. 503.32(b)(5), the septage requirements in 40 C.F.R. 503.32(c), and the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(11) and 503.33(b)(12). These documents are available from http://www.flrules.org/Gateway/reference.asp?No=Ref, the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, the publisher at the Government Printing Office, Code of Federal Regulations, 732 North Capitol Street, N.W. Washington, DC 20401-0001, or https://www.govinfo.gov/app/collection/cfr/.

(1) Pathogen Reduction Requirements.

(a) through (b) No change.

(c) Septage management facilities that are regulated by the Department, and that do not treat any amount of biosolids shall satisfy Class B pathogen reduction requirements if sufficient lime is added to produce a pH of 12 for a minimum of two hours~~, or a pH of 12.5 for a minimum of 30 minutes~~. Processes and design shall be in accordance with the guidance for lime stabilization of septage in Chapter 6, Process Design Manual for Sludge Treatment and Disposal, U.S. Enviornmental Protection Agency, 1979, which the Department adopts and incorporates by reference and is available from http://www.flrules.org/Gateway/reference.asp?No=Ref, the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or from www.epa.gov. The pH shall be maintained at or above 11 until land application~~, but shall be less than 12.5 at the time of land application~~. Materials treated in accordance with this provision shall be managed as Class B biosolids.

(2) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.600, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.650 Monitoring, Record Keeping, Reporting, and Notification.

(1) through (2) No change.

(3) Monitoring Requirements.

(a) Biosolids Monitoring.

1. Biosolids sampling and analysis shall be conducted as follows:

a. Monitoring ~~to monitor~~ for the pathogen and vector attraction reduction requirements of Rule 62-640.600, F.A.C., and the parameters in subparagraph 62-640.650(3)(a)3., F.A.C., shall be conducted by the treatment facility in accordance with 40 C.F.R. 503.8, and the *POTW Sludge Sampling and Analysis Guidance Document,* August 1989, which the Department adopts and incorporates by reference. This document is available from at http://www.flrules.org/Gateway/reference.asp?No=Ref and the Department of Environmental Protection, Wastewater Management Program, M.S. 3545 ~~Domestic Wastewater Section, M.S. 3540~~, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400~~, or any of the Department's District Offices~~. In cases where disagreements exist between 40 C.F.R. 503.8 and the *POTW Sludge Sampling and Analysis Guidance Document*, the requirements in 40 C.F.R. 503.8 will apply.

b. Monitoring for water extractable phosphorus shall follow the Universal Water Extractable P Test for Manure and Biosolids, Wolf, A.M., P.A. Moor, P.J.A.. Kleinman, D.M. Sullivan, 2009, Methods of Phosphorus Analysis for Soils, Sediments, Residuals and Waters, Second Edition, Southern Cooperative Series Bulletin, P76-80, https://sera17dotorg.files.wordpress.com/2015/02/sera-17-methods-for-p-2009.pdf, which the Department adopts and incorporates by reference. The document is available at http://www.flrules.org/Gateway/reference.asp?No=Ref and from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

c. Beginning after (the effective date of the rule), all domestic wastewater treatment facilities and biosolids treatment facilities permitted to land apply biosolids shall start monitoring for water extractable phosphorus during routine biosolids monitoring events in accordance with subparagraphs 62-640.650(3)(a)3 and 4., F.A.C. The results shall be provided to the permittees of land application sites where the facility's biosolids are land applied but are not required to be repored by the facility to the Department until after the facility is subject to this chapter revised (effective date of the rule) in accordance with paragraph 62-640.100(5)(f), F.A.C.

2. Permit applications for all treatment facilities that land apply or distribute and market biosolids shall identify the monitoring that will be conducted for all microbial and all operational and process parameters necessary to demonstrate compliance with the pathogen reduction and vector attraction reduction requirements of Rule 62-640.600, F.A.C. All operational and process parameters, such as time and temperature, number of windrow turnings, pH readings, etc., shall be monitored ~~on a continual basis~~ as applicable to the treatment process to demonstrate compliance with Rule 62-640.600, F.A.C., and shall be as specified in the facility's permit.

3. All treatment facilities that land apply or distribute and market biosolids shall analyze biosolids for the following parameters, except as provided in paragraph 62-640.880(5)(a), F.A.C.:

Parameter	Units
Total Nitrogen	% dry weight basis
Total Phosphorus	% dry weight basis
Water Extractable Phosphorus*	% dry weight basis
Total Potassium	% dry weight basis

Arsenic	mg/kg dry weight basis
Cadmium	mg/kg dry weight basis
Copper	mg/kg dry weight basis
Lead	mg/kg dry weight basis
Mercury	mg/kg dry weight basis
Molybdenum	mg/kg dry weight basis
Nickel	mg/kg dry weight basis
Selenium	mg/kg dry weight basis
Zinc	mg/kg dry weight basis
pH	standard units
Total Solids	%
Calcium Carbonate Equivalent**	% dry weight basis

* Not required for septage management facilities

** Only required for biosolids treated by alkaline addition

~~Total Nitrogen~~	~~% dry weight basis~~
~~Total Phosphorus~~	~~% dry weight basis~~
~~Total Potassium~~	~~% dry weight basis~~
~~Water Extractable Phosphorus*~~	~~% dry weight basis~~
~~Arsenic~~	~~mg/kg dry weight basis~~
~~Cadmium~~	~~mg/kg dry weight basis~~
~~Copper~~	~~mg/kg dry weight basis~~
~~Lead~~	~~mg/kg dry weight basis~~
~~Mercury~~	~~mg/kg dry weight basis~~
~~Molybdenum~~	~~mg/kg dry weight basis~~
~~Nickel~~	~~mg/kg dry weight basis~~
~~Selenium~~	~~mg/kg dry weight basis~~
~~Zinc~~	~~mg/kg dry weight basis~~
~~pH~~	~~standard units~~
~~Total Solids~~	~~%~~
~~Calcium Carbonate Equivalent**~~	~~% dry weight basis~~
~~* Not required for septage management facilities~~ ~~** Only required for biosolids treated by alkaline addition~~	

4. Treatment facilities that land apply or distribute and market biosolids shall monitor microbial parameters and the parameters listed in subparagraph 62-540.650(3)(a)3., F.A.C., as follows:

a. through b. No change.

c. For all other biosolids that are land applied, the minimum frequency of monitoring shall be in accordance with the following table:

Biosolids Generated (Dry Tons Per Year)	Monitoring Frequency
Greater than zero but less than 160	Once per year.
Equal to or greater than 160 but less than 800	Once per quarter.
Equal to or greater than 800 but less than 8,000	Once per 60 days.
Equal to or greater than 8,000	Once per month.

~~BIOSOLIDS GENERATED~~	~~MONITORING FREQUENCY~~
~~(DRY TONS PER YEAR)~~	
~~Greater than zero but less than 160~~	~~Once per year.~~
~~Equal to or greater than 160 but less than 800~~	~~Once per quarter.~~
~~Equal to or greater than 800 but less than 8,000~~	~~Once per 60 days.~~

~~Equal to or greater than 8,000~~	~~Once per month.~~

5. through 7. No change.

(b) Soil Monitoring.

1. The site permittee shall ensure soil fertility testing is conducted in accordance with the NMP and the results of soil fertility tests shall be included in the application site records. The soil fertility testing and results shall be equivalent to the "Phosphorus Index Test" as conducted by the University of Florida (UF)/Institute of Food and Agricultural Sciences (IFAS) Extension Soil Testing Laboratory, and shall include the "Capacity Index" results for the soil. At a minimum, soil fertility testing shall provide: soil pH; Mehlich-3 extraction method results for phosphorus (P), aluminum (Al), and iron (Fe); calculated soil capacity index (CI) following subsection 62-640.200(9), F.A.C.; and, lime requirement. To determine the soil capacity index, soil fertility testing samples may be taken at depths greater than 6 inches but no deeper than the depth of the seasonal high water table. Soil fertility testing may be performed by the Univerisity of Florida Analytical Research Laboratory/Extension Soil Testing Laboratory or other agricultrual laboratory participating in the North American Proficiency Testing Program (NAPT). Soil testing shall follow the procedures in the documents below and which are hereby adopted and incorporated by reference and available from http://www.flrules.org/Gateway/reference.asp?No=Ref and from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. The soil testing documents to be followed are as follows:

a. IFAS publication ~~publications~~ "Soil Testing," UF/IFAS Circular 239, September 2003, identified in paragraph 62-640.210(1)(o), F.A.C.;

b. ~~, and~~ "Extension Soil Testing Laboratory (ESTL) Analytical Procedure and Training Manual," UF/IFAS Circular 1248, February 2009, identified in paragraph 62-640.210(1)(p), F.A.C.; and,

c. "Mehlich-3," Chapter 4.3, Soil Test Methods From the Southeastern United States, Southern Cooperative Series Bulletin No. 419, 2014, identified in paragraph 62-640.210(1)(s), F.A.C. ~~which are hereby incorporated by reference. These documents are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices. Results of soil fertility tests shall be included in the application site records.~~

2. Representative soil monitoring for parameters in subsection 62-640.700(5), F.A.C., shall be conducted at application sites for each application zone prior to application site permitting~~, except for sites only permitted for Class AA biosolids~~. At a minimum, one soil sample shall be taken for each application zone or for every 50 acres of application area, whichever is smaller. Each sample shall be a composite of at least ten random samples to a depth of six inches and shall be completely mixed to form a minimum one-pound sample. Sampling and analysis shall be in accordance with 40 C.F.R. 503.8(4), which is hereby incorporated by reference. Results of initial soil monitoring shall be reported on the Biosolids Site Permit Application, Form 62-640.210(2)(d).

(c) Ground Water Monitoring.

1. A ground water monitoring program shall be established by the site permittee, and approved by the Department for land application sites when the application rate in the NMP exceeds more than 160~~400~~ lbs/acre/year of total ~~plant available~~ nitrogen or 40 lbs/acre/year of total P_2O_5 (i.e. more than 17.4 lbs/acre/year of total phosphorus), or when the soil capacity index is less than 0 mg/kg. When soil fertility testing indicates the soil capacity index has become less than 0 mg/kg, the permittee of a biosolids land application site shall establish a ground water monitoring program in accordance with subparagraph 62-640.650(3)(c)2., F.A.C., below within one year of the date of the sampling results. When ground water monitoring is not required, the permittee shall allow the Department to install ground water monitoring wells at any time during the effective period of the Department-issued facility or land application site permit and conduct monitoring.

2. through 5. No change.

(d) Surface Water Monitoring

1. The site permittee shall ensure surface water monitoring for total phosphorus, total nitrogen, and fecal coliform bacteria is conducted for sites when an application site is bordered or crossed by waters of the state and the application zone is located within 1000 feet of waters of the state, excluding wetlands. Monitoring shall be conducted at least quarterly. When surface water monitoring is not required, the permittee shall allow the Department to install equipment to monitor surface water and surface water runoff at any time during the effective period of the Department-issued facility or land application site permit and conduct monitoring.

2. Monitoring of the receiving surface water shall be detailed in a monitoring plan submitted to the Department for approval that meets all the requirements of Rule 62-302.200 and Chapter 62-160, F.A.C.

3. A sampling and analysis plan shall include the components as required by subsection 62-307.200(3), F.A.C.

(e)~~(d)~~ Unless specifically provided otherwise in this chapter, a~~A~~ny laboratory tests required by this chapter shall be performed by a laboratory certified in accordance with paragraph 62-620.610(18)(d), F.A.C. Sample collection required by this chapter shall be performed in accordance with paragraph 62-620.610(18)(e), F.A.C. The Specific Oxygen Uptake Rate (SOUR) test, as required by 40 C.F.R. 503.33(b)(4), shall be conducted within 15 minutes of sample collection and shall be performed by a certified laboratory or under the direction of an operator certified in accordance with Chapter 62-602, F.A.C. Field pH readings at septage management facilities may be taken a septic tank contractors or master septic tank contractors, or facility personnel under the supervision of a septic tank contractor or master septic tank contractor.

(4) Record Keeping Requirements.

(a) through (c) No change.

(d) Treatment facility permittees that land apply biosolids and site permittees receiving biosolids shall maintain hauling records to track the transport of biosolids between the treatment facility and the application site. The hauling records for each party shall contain the following information:

Treatment Facility Permittee Records:

1. Date and Time Shipped and Shipment ID
2. Amount of Biosolids Shipped
3. Concentration of are parameters in subparagraph 62-640.650(3)(a)3., F.A.C., and the Date of Analysis
4. Class of Biosolids Shipped
5. Name and ID Number of Permitted Application Site Where Biosolids are Shipped
6. Signature of Certified Operator at the Treatment Facility or Designee
7. Signature of Hauler and Name of Hauling Firm

Site Permittee Records

1. Date and Time Received and Shipment ID
2. Name and ID Number of Treatment Facility from which Biosolids received
3. Signature of Hauler
4. Signature of Site Manager at the Application Site or Designee

~~TREATMENT FACILITY~~			
~~PERMITTEE~~		~~SITE PERMITTEE~~	
~~1.~~	~~Date and Time Shipped and Shipment ID~~	~~1.~~	~~Date and Time Received and Shipment ID~~
~~2.~~	~~Amount of Biosolids Shipped~~	~~2.~~	~~Name and ID Number of Treatment Facility from which Biosolids received~~
~~3.~~	~~Concentration of are parameters in subparagraph 62-640.650(3)(a)3., F.A.C., and the Date of Analysis~~	~~3.~~	~~Signature of Hauler~~
~~4.~~	~~Class of Biosolids Shipped~~	~~4.~~	~~Signature of Site Manager at the Application Site or Designee~~
~~5.~~	~~Name and ID Number of Permitted Application Site Where Biosolids are Shipped~~		
~~6.~~	~~Signature of Certified Operator at the Treatment Facility or Designee~~		
~~7.~~	~~Signature of Hauler and Name of Hauling Firm~~		

(e) through (i) No change.

(j) Logs and records detailing biosolids applications to each application zone at an application site shall be maintained by the site permittee indefinitely and shall be available for inspection within seven days of request by the Department or the Delegated Local Program. At a minimum, the logs and records for the most recent six months of application shall be available for inspection at the land application site (i.e. maintained onsite). The logs and records shall include:

1. through 2. No change.

3. For each application zone, maintain Biosolids Application Site Log, Form 62-640.210(2)(e), F.A.C., ~~effective August 29, 2010, hereby adopted and~~ incorporated by reference in subsection 62-640.210(2), F.A.C., ~~and available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices,~~

4. The results of all soil monitoring, ground water monitoring, and surface ~~ground~~ water monitoring conducted in accordance with paragraphs 62-640.650(3)(b) through ~~and~~ (d)~~(c)~~, F.A.C.,

5. Records ~~Any records necessary for~~ demonstrating compliance with items and operations specified in the NMP such as crop planting records if the NMP calls for planting crops, harvesting dates~~, harvested~~ and yields if the NMP application rate is based on harvesting, applications of other sources of nutrients, or other records identified in the NMP; and,

6. Records ~~Any records necessary for~~ demonstrating compliance with the demonstration submitted with the NMP for sites located within the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds in accordance with subsection 62-640.500(7)~~(8)~~, F.A.C.

7. Records demonstrating compliance with any reasonable assurance provisions contained in the site NMP or water quality monitoirng plan for land application at sites with a seasonal high water table within six inches of the soil surface or depth of biosolids placement in accordance with paragraph 62-640.700(10)(a), F.A.C.

(5) Reporting Requirements.

(a) No change.

(b) Distribution and Marketing Reporting. Any person who delivers biosolids to Florida for distribution and marketing shall submit a monthly Discharge Monitoring Report that includes the information required in subsection 62-640.850(4), F.A.C., on the Discharge Monitoring Report (DMR) form, DEP Form 62-620.910(10), adopted and incorporated by reference in Rule 62-620.910, F.A.C.,~~appropriate form~~ provided by the Department. The DMR forms shall be mailed to the Department and the delegated program at the addresses specified in the permit or be submitted electronically using the DEP Business Portal at http://www .fldepportal.com/go/. DMR forms shall be submitted in accordance with the frequencies specified on the DMR forms attached to the permit and be postmarked or entered electronically by the 28th day of the month following the month of operation. After December 20, 2023, DMR forms shall be submitted electronically.

(c) Treatment Facility Biosolids Annual Summary. Permittees of wastewater treatment facilities or biosolids treatment facilities permitted for land application shall submit an annual ~~a~~ summary of the shipment records required by paragraph 62-640.650(4)(d), and subsection 62-640.880(4), F.A.C., as applicable, on DEP Form 62-640.210(2)(b), incorporated by reference in subsection 62-640.210(2), F.A.C. ~~to the appropriate District Office of the Department, or to the delegated local program, on an annual basis. The summary must be submitted on Department Form 62-640.210(2)(b), effective August 29, 2010, hereby adopted and incorporated by reference, and available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices.~~ The summary shall include all biosolids shipped during the period January 1 through December 31. The summary shall be submitted to the Department and the appropriate delegated program at the addresses specified in the permit. Electronic submittal is preferred and may be available at the DEP Business Portal at http://www .fldepportal.com/go/. After December 20, 2023, summaries shall be submitted electronically. The summary for each year shall be ~~submitted~~ postmarked or electronically submitted ~~to the Department~~ by February 19 of the following year.

(d) Biosolids Application Site Annual Summary. The site permittee shall submit an annual ~~a~~ summary of land application activity ~~to the appropriate District Office of the Department, or to the delegated local program, on an annual basis. The summary shall be submitted on Department~~ on DEP Form 62-640.210(2)(c), ~~effective August 29, 2010, hereby adopted and~~ incorporated by reference in subsection 62-640.210(2), F.A.C.~~, and available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices. The summary for each year, covering the period from January 1 through December 31, shall be submitted to the Department by February 19 of the following year.~~ The summary shall include all biosolids land applied during the period January 1 through December 31. The summary shall be submitted to the Department and the appropriate delegated program at the addresses specified in the permit. Electronic submittal is preferred and may be available at the DEP Business Portal at http://www .fldepportal.com/go/. After December 20, 2023, summaries shall be submitted electronically. The summary for each year shall be postmarked or electronically submitted by February 19 of the following year. The summary shall include all of the following, as applicable:

1. No change.

2. ~~Except for sites where only Class AA biosolids are applied,~~ T~~t~~he total cumulative loading for the parameters specified in paragraph 62-640.700(7)(b), F.A.C., applied to each application zone identified in the site's NMP. Cumulative loading shall be determined as described in subsection 62-640.700(7), F.A.C., and shall be calculated for all biosolids applications at a site beginning with the earlier of:

a. through b. No change.

3. No change.

4. The results of any ground water monitoring and surface water monitoring required by paragraphs 62-640.650(3)(c) and (d), F.A.C.

5. No change.

6. Copies of records kept in accordance with subparagraph 62-640.650(4)(j)6., F.A.C., demonstrating compliance with the demonstration submitted with the NMP for sites located within the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds in accordance with subsection 62-640.500(7)~~(8)~~, F.A.C.

(e) No change.

(6) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 3-30-98, Amended 8-29-10, X-x-xx.

62-640.700 Requirements for Land Application ~~of Class AA, A, and B Biosolids~~.

(1) ~~Except as provided in paragraph 62-640.100(5)(g), F.A.C.,~~ B~~b~~iosolids shall only be applied to land application sites that are permitted by the Department in accordance with Rule 62-640.300, F.A.C., and have a valid NMP.

(2) All biosolids applied to land application sites shall meet the requirements of Class AA, Class A, or Class B biosolids as defined in subsections 62-640.200(10), (11), and (12)~~62-640.200(9), (10), and (11)~~, F.A.C.

(3) through (4) No change.

(5) Parameter Concentrations.

(a) Biosolids may be applied to a land application site only if all parameter concentrations do not exceed the following ceiling concentrations in any sample, and the biosolids meet the pathogen and vector attraction reduction requirements set forth in Rule 62-640.600, F.A.C., for the intended site use.

Ceiling Concentrations

Parameter	Single Sample Concentration (mg/kg dry weight basis)
Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

~~CEILING CONCENTRATIONS (mg/kg dry weight basis)~~	
~~Parameter~~	~~Single Sample Concentration~~
~~Arsenic~~	~~75~~
~~Cadmium~~	~~85~~
~~Copper~~	~~4300~~
~~Lead~~	~~840~~
~~Mercury~~	~~57~~
~~Molybdenum~~	~~75~~
~~Nickel~~	~~420~~
~~Selenium~~	~~100~~
~~Zinc~~	~~7500~~

(b) In addition to meeting the single sample requirements of paragraph 62-640.700(5)(a), F.A.C., Class A biosolids may be classified as Class AA biosolids only if the monthly average parameter concentrations do not exceed the following criteria:

Class AA Parameter Concentrations

Parameter	Monthly Average Concentration (mg/kg dry weight basis)
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2,800

~~CLASS AA PARAMETER CONCENTRATIONS (mg/kg dry weight basis)~~	
~~Parameter~~	~~Monthly Average Concentration~~
~~Arsenic~~	~~41~~
~~Cadmium~~	~~39~~
~~Copper~~	~~1,500~~
~~Lead~~	~~300~~
~~Mercury~~	~~17~~
~~Nickel~~	~~420~~
~~Selenium~~	~~100~~
~~Zinc~~	~~2,800~~

(c) No change.

(6) General Application Site Requirements.

(a) No change.

(b) ~~Beginning within one year of August 29, 2010,~~ Class A and Class B biosolids treated by alkaline addition shall be applied by the best management practice of incorporation or injection unless the application area is located at a distance greater than one-quarter mile from the application site property line. This distance shall be decreased to the setback distance provided by subparagraph 62-640.700(8)(b)2., F.A.C., if the affected adjacent property owner provides written consent.

(c) through (d) No change.

(e) Biosolids shall not be stored, stockpiled, or staged at a land application site for more than seven days unless approved by the Department pursuant to subparagraph 2., below.

1. No change.

2. The Department shall approve storage periods for longer than seven days if the following conditions are met:

a. through c. No change.

d. The storage facilities are adequate for the rate of biosolids generated by permitted treatment facilities sending biosolids to the application site~~; and~~,

e. A longer storage period is needed because of agricultural operations or climatic factors at the application site; and~~.~~

f. In addition to the provisions of subparagraph 62-640.700(6)(e)1., F.A.C., measures to prevent leaching of nutrients are also implemented.

3. through 4. No change.

(f) No change.

(7) Cumulative Application Limits.

(a) No change.

(b) The application of Class A and Class B biosolids to application zones which accept biosolids that meet the ceiling concentration limits in subsection 62-640.700(5), F.A.C., shall be restricted by the following cumulative application limits:

Cumulative Application Limits

Parameter	Limit (pounds per acre)

Arsenic	36.6
Cadmium	34.8
Copper	1,340
Lead	268
Mercury	15.2
Molybdenum	Report only
Nickel	375
Selenium	89.3
Zinc	2,500

~~CUMULATIVE APPLICATION LIMITS (pounds per acre)~~	
~~Arsenic~~	~~36.6~~
~~Cadmium~~	~~34.8~~
~~Copper~~	~~1,340~~
~~Lead~~	~~268~~
~~Mercury~~	~~15.2~~
~~Molybdenum~~	~~Report only~~
~~Nickel~~	~~375~~
~~Selenium~~	~~89.3~~
~~Zinc~~	~~2,500~~

(c) through (d) No change.

(8) No change.

(9) The pH of the soil or the the biosolids soil mixture of an application zone shall be 5.0 or greater at the time Class A or Class B biosolids are applied. At a minimum, soil pH testing shall be done annually.

(10) Seasonal High Water Table.

(a) In accordance with subsection 62-640.400(14), biosolids shall not be applied on soils that have a seasonal high water table less than 6 inches from the soil surface or within 6 inches of the intended depth of biosolids placement, unless a Department-approved nutrient management plan and water quality monitoring plan provide reasonable assurance that the land application of biosolids at the site will not cause or contribute to a violation of the state's surface water quality standards or ground water standards.

(b) A minimum unsaturated soil depth of two feet is required between the depth of biosolids placement and the water table level at the time the Class A or Class B biosolids are applied to the soil.

(c) The permittee can indicate the seasonal high ground water table~~level~~ for each application zone at the application site in the Biosolids Site Permit Application, Form 62-640.210(2)(d), by use of soil survey maps or by an evaluation conducted by a professional engineer with soils training who is licensed in the State of Florida or a professional soil scientest certified and registered by the Florida Association of Environmental Soil Scientests. The methodologies set forth in the document "Soil and Water Relationships of Florida's Ecological Communities" (Florida Soil Conservation Staff 1992, https://floridadep.gov/sites/default/files/soil-and-water.pdf), which the Department adopts and incorporates by reference, and is available at http://www.flrules.org/Gateway/reference.asp?No=Ref and from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, may be used to establish the seasonal high water table.

(d) If the seasonal high ground water level is within two feet of the depth of biosolids placement ~~or cannot be determined at the time of permitting~~, the water table level shall be determined in one or more representative location(s) in the application zone before each application of biosolids, by measuring the water level in a water-table monitoring well or a piezometer.

(11) Runoff Prevention Requirements.

(a) through (b) No change.

(c) Biosolids shall not be land applied on soils having a flooding frequency class of "frequent" or "very frequent", or on soils having a flooding duration class of "long" or "very long," as given in soil surveys and as defined by the NRCS in Section 618.31~~618.27~~ of the *National Soil Survey Handbook*, as of August 2019~~October 2009~~, hereby adopted and incorporated by reference and available at https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=44371.wba,

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054242, http://www.flrules.org/Gateway/reference.asp?No=Ref, and from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400~~, or any of the Department's District Offices~~.

(12) No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.700, Amended 3-30-98, 8-29-10, X-x-xx.

~~**62-640.750 Agricultural Sites.**~~

~~*Rulemaking Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 3-30-98, Repealed 8-29-10.*~~

62-640.800 Additional Requirements for Land Application at Reclamation Sites.

(1) through (4) No change.

(5) Ground water and surface water monitoring shall be conducted for reclamation sites as provided in paragraphs 62-640.650(3)(c) and (d), F.A.C.

(6)~~(5)~~ No change.

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.800, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.850 Distribution and Marketing of Class AA Biosolids.

The distribution and marketing of biosolids or biosolids products shall meet the requirements of this section and this chapter, but are not required to meet subsections 62-640.300(2) and (3); Rule 62-640.500; paragraphs 62-640.650(3)(b) through (d); 62-640.650(4)(c) through (j); 62-640.650(5)(c) through (e); 62-640.650(6)(a), (b), (f), and (g); subsections 62-640.700(1) through (4); 62-640.700(6) through (12); and Rule 62-640.800, F.A.C.

(1) Distributed and marketed biosolids or biosolids products shall meet the requirements for Class AA biosolids as defined in subsection 62-640.200(11)~~62-640.200(10)~~, F.A.C.

(2) Distributed and marketed biosolids or biosolids products shall be distributed and marketed as a fertilizer in accordance with Chapter 576, F.S., (2019)~~(2009)~~, and Chapter 5E-1, F.A.C., 10-27-2016~~1-18-2010~~, both hereby adopted and incorporated by reference, or distributed and marketed to a person or entity that will sell or give-away the biosolids or biosolids products as a fertilizer or as a component of a fertilizer subject to Chapter 576, F.S., and Chapter 5E-1, F.A.C. ~~Copies of~~ Chapter 576, F.S., is available at https://www.flsenate.gov/Laws/Statutes/2019?chapter=576 and http://www.flrules.org/Gateway/reference.asp?No=Ref. ~~and~~ Chapter 5E-1, F.A.C., is available at: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=5E-1 and http://www.flrules.org/Gateway/reference.asp?No=Ref. Both documents are also available from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 ~~or any of the Department's District Offices~~. For the purposes of this chapter, biosolids composts that are distributed and marketed outside of the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds, as defined in Section 373.4595, F.S., do not have be to distributed and marketed as a fertilizer if the biosolids compost product is enrolled and certified under the U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) program under the USCC STA program document in effect on 5-6-2020~~5-20-2010~~, hereby adopted and incorporated by reference. A copy of the USCC STA program document is available at https://cdn.ymaws.com/www.compostingcouncil.org/resource/resmgr/images/USCC_STA_Rules_2020_FINAL.pdf, http://www.flrules.org/Gateway/reference.asp?No=Ref, and from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400~~, or any of the Department's District Offices~~.

(3) Any treatment facility which produces biosolids in Florida that will be distributed and marketed or any person who delivers

biosolids to Florida to be distributed and marketed shall submit the information listed in paragraph 62-640.850(3)(b), F.A.C., to the Department.

(a) No change.

(b) The information shall include:

1. The Florida fertilizer license number assigned in accordance with Florida's Commercial Fertilizer Law, Chapter 576, F.S., (2019)~~(2009)~~, and Chapter 5E-1, F.A.C., 10-27-2016~~1-18-2010~~, both ~~hereby adopted and~~ incorporated by reference in subsection 62-640.850(2), F.A.C., under which the biosolids or biosolids products will be distributed and marketed ~~(copies of Chapter 576, F.S., and Chapter 5E-1, F.A.C., are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices)~~ or documentation showing proof of certification for biosolids composts enrolled in the USCC STA program in effect on 5-6-2020~~5-20-2010~~, ~~hereby adopted and~~ incorporated by reference in subsection 62-640.850(2), F.A.C.~~(a copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices)~~,

2. through 4. No change.

5. The label or information sheet, as applicable, to be provided at the time of distribution and marketing of the biosolids in accordance with subsection 62-640.850(5), F.A.C., Chapter 576, F.S., (2019)~~(2009)~~, and Chapter 5E-1, F.A.C., 10-27-2016~~1-18-2010~~, both ~~hereby adopted and~~ incorporated by reference in subsection 62-640.850(2), F.A.C., ~~as applicable (copies of Chapter 576, F.S., and Chapter 5E-1, F.A.C., are available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices)~~ or equivalent information for biosolid composts certified and enrolled in the USCC STA program in effect on 5-6-2020~~5-20-2010, hereby adopted and~~ incorporated by reference in subsection 62-640.850(2), F.A.C. ~~(a copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices)~~,

6. through 7. No change.

(4) No change.

(5) In addition to any fertilizer labeling requirements of Chapter 576, F.S., (2019), and Chapter 5E-1, F.A.C., 10-27-2016 or the equilavent information for biosolids composts certified and enrolled in the USCC STA program in effect on 5-6-2020~~5-20-2010~~, all ~~hereby adopted and~~ incorporated by reference in subsection 62-640.850(2), F.A.C. ~~(a copy of the USCC STA program document is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or any of the Department's District Offices)~~, the following information must be made available to the users by the manufacturer by product labels or other means:

(a) through (c) No change.

(6) Any person who intends to begin shipping biosolids into Florida for distribution and marketing shall notify the Department in writing of their intent to distribute and market the biosolids in Florida and provide reasonable assurance that the biosolids meet the requirements for Class AA biosolids. The notification shall be sent to the Wastewater Management Program, M.S. 3545, ~~Domestic Wastewater Section, M.S. 3540~~, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The notification shall be submitted at least 30 days prior to initiating shipment of the biosolids into Florida. Any persons currently shipping biosolids into Florida for distribution and marketing shall have 90 days after August 29, 2010 to provide the notification. The notification shall include:

(a) through (h) No change.

(i) A copy of the most recent treatment facility annual report submitted to EPA in accordance with 40 C.F.R. Section 503.18, October 22, 2015, hereby adopted and incorporated by reference, and available from the publisher at the Government Printing Office, Code of Federal Regulations, 732 North Capitol Street, N.W. Washington, DC 20401-0001, from https://www.govinfo.gov/app/collection/cfr/, from http://www.flrules.org/Gateway/reference.asp?No=Ref ,or from the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Facilites not required by EPA to submit an annual report shall submit a report equivalent to an EPA report in accordance with 40 C.F.R. Section 503.18;

(j) through (l) No change.

(7) By February 19 of each year, any person shipping biosolids to Florida for distribution and marketing shall submit a copy of the applicable EPA facility annual biosolids report required by 40 C.F.R. Section 503.18, ~~July 1, 2009, hereby adopted and~~

incorporated by reference in paragraph 62-640.850(6)(i), F.A.C., to the Department of Environmental Protection, Wastewater Management Program, M.S. 3545, ~~Department's Domestic Wastewater Section, M.S. 3540,~~ 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. ~~A copy of 40 C.F.R. 503.18 is available from the Department of Environmental Protection, Domestic Wastewater Section, M.S. 3540, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or any of the Department's District Offices.~~

Rulemaking Authority 373.043, 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 373.4595, 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 8-12-90, Formerly 17-640.850, Amended 3-30-98, 8-29-10, X-x-xx.

62-640.860 Other Solids.

(1) through (3) No change.

Rulemaking Authority 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 3-30-98, Amended 8-29-10.

62-640.880 Additional Requirements Related to Biosolids Treatment Facilities.

The requirements of this section shall apply to any facility that treats biosolids from other facilities prior to use, land application, or disposal. These requirements also apply to septage management facilities that treat domestic septage and combinations of food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marina pumpout, or other onsite systems prior to use, land application, or disposal.

(1) No change.

(2) Permitting.

(a) Fees. For the purpose of determining applicable permit fees, the biosolids treatment facility shall be classified as Type I, II, or III based on the design capacity established by the permittee as follows:

Type	Design Capacity (Dry Tons Per Year)	Design Capacity (Dry Tons Per Day)
I	≥1653	≥4.5
II	320-1,653	0.88-4.5
III	≤320	≤0.88

	~~DESIGN CAPACITY~~	~~DESIGN CAPACITY~~
~~TYPE~~	~~(DRY TONS PER YEAR)~~	~~(DRY TONS PER DAY)~~
~~I~~	~~≥1653~~	~~≥4.5~~
~~II~~	~~320-1,653~~	~~0.88-4.5~~
~~III~~	~~≤320~~	~~≤0.88~~

(b) through (i) No change.

(j) Staffing. The level of operator staffing at a biosolids treatment facility shall be as follows:

Class Of Biosolids**	Staffing: Type I*	Staffing: Type II*	Staffing: Type III*
A/AA	Class A Operator 8 hours/day 5 days/week	Class B OperatoR 4 hours/day 5 days/week	Class B Operator 2 hours/day 5 days/week
B	Class A Operator 2 hours/day 5 days/week	Class B Operator 1 hour/day 5 days/week	Class C Operator 1 hour/day 3 days/week
B***	Class A Operator 1 hour/day 5 days/week	Class B Operator 1 hour/day 3 days/week	1 hour/week

*Classification of Type of facility as determined by paragraph 62-640.880(2)(a), F.A.C.

**Class of pathogen reduction achieved by the biosolids treatment facility in accordance with subsection 62-640.600(1), F.A.C.

***This category is for Class B liquid alkaline stabilization only.

	~~TYPE I*~~	~~TYPE II*~~	~~TYPE III*~~
~~A/AA**~~	~~Class A Operator~~	~~Class B Operator~~	~~Class B Operator~~
	~~8 hours/day~~	~~4 hours/day~~	~~2 hours/day~~
	~~5 days/week~~	~~5 days/week~~	~~5 days/week~~
~~B**~~	~~Class A Operator~~	~~Class B Operator~~	~~Class C Operator~~
	~~2 hours/day~~	~~1 hour/day~~	~~1 hour/day~~
	~~5 days/week~~	~~5 days/week~~	~~3 days/week~~
~~B***~~	~~Class A Operator~~	~~Class B Operator~~	~~Class C Operator~~
	~~1 hour/day~~	~~1 hour/day~~	~~1 hour/week~~
	~~5 days/week~~	~~3 days/week~~	
~~*Classification of Type of facility as determined by paragraph 62-640.880(2)(a), F.A.C.~~			
~~**These letters correspond to the Class of pathogen reduction that is achieved by the biosolids treatment facility in accordance with subsection 62-640.600(1), F.A.C.~~			
~~***This category is for Class B liquid alkaline stabilization only.~~			

1. No change.

2. Operator staffing requirements for facilities addressed in paragraph 62-640.880(2)(d), F.A.C., shall be established as the more stringent of either the requirements in Chapter 62-699, F.A.C., or the requirements in paragraph 62-640.880(2)(j), F.A.C. For septage management facilities with a permitted capacity equivalent to 10,000 gallons per day or less, the Class C operator requirements given in paragraph 62-640.880(2)(j), F.A.C., may be substituted with a registered septic tank contractor or master septic tank contractor.

3. through 4. No change.

(k) No change.

(3) No change.

(4) Hauling Records.

(a) The biosolids treatment facility and the source facility transporting the biosolids shall maintain hauling records to track the transport of biosolids between facilities. The hauling records for each party shall contain the following information:

Source Facility Records:

1. Date and Time Shipped
2. Amount of Biosolids Shipped
3. Degree of Treatment (if applicable)
4. Name and ID Number of Biosolids Treatment Facility
5. Signature of Responsible Party at Source Facility
6. Signature of Hauler and Name of Hauling Firm

Biosolids Treatment Facility

1. Date and Time Received
2. Amount of Biosolids Received
3. Name and ID Number of Source Facility
4. Signature of Hauler
5. Signature of Responsible Party at Biosolids Treatment Facility

~~SOURCE FACILITY~~	~~BIOSOLIDS TREAMENT FACILITY~~
~~1. Date and Time Shipped~~	~~1. Date and Time Received~~
~~2. Amount of Biosolids Shipped~~	~~2. Amount of Biosolids Received~~
~~3. Degree of Treatment (if applicable)~~	~~3. Name and ID Number of Source Facility~~
~~4. Name and ID Number of Biosolids Treatment Facility~~	~~4. Signature of Hauler~~
~~5. Signature of Responsible Party at Source Facility~~	~~5. Signature of Responsible Party at Biosolids Treatment Facility~~
~~6. Signature of Hauler and Name of Hauling Firm~~	

(b) through (c) No change.

(5) through (6) No change.

Rulemaking Authority 403.051, 403.061, 403.062, 403.0855, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.0855, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History–New 3-30-98, Amended 8-29-10, X-x-xx.