Indian River County, Department of Utility Services comments on the Florida Department of Environmental Protection's Draft Biosolids rule revision (Florida Administrative Code 62-640)

~~*Red stricken out*~~ *– proposed deletions*
Red – proposed language
COMMENT – Comment on section

Section reference:

62-640.100 Scope, intent, Purpose, and Applicability

(1) All domestic wastewater treatment facilities which use biological treatment processes generate biosolids as a by-product of the treatment process. The Department finds that ~~unregulated~~ use, disposal, or land application of biosolids *may* pose a threat to the environment and public health *unless water quality or other scientific data demonstrates otherwise*.

(5)(a) It is the intent of the Department in this chapter to regulate the management, use, and land application of biosolids so as to ensure protection of the environment and public health,including minimizing the migration of nutrients, nitrogen, ~~and~~ phosphrous *or other pollutants* that *may* impair or contribute to the impairment of waterbodies *through water quality testing verification of all permitted sites.*

(5)(f) COMMENT: This section should include wording to allow for a permit revision or reopener clause on existing permits.

(5)(g) COMMENT: Allowing facilities to operate under the requirements of the current 62-640 will not ensure protection of the environment.

(5)(h) COMMENT: (f) and (g) seem to contradict timeframes. How does the Department propose that existing Permittees will be meeting the requirements within 3 years? What will be measured to ensure compliance?

(6)(a) Biosolids land application within areas of the state where basin management action plans (BMAPs) have been adopted *or may be adopted* in accordance with Sections 403.067(7), and 373.807, F.S., shall be in accordance with the applicable BMAPs.

(6)(a) COMMENT: Future regulations such as implementation of a BMAP should justify the Reopener or permit revision clause under (5)(f).

62-640.200 Definitions:

COMMENT: This section is missing various definitions such as Minimum Depth to Water and Seasonal High Water Table.

62-640.210 General Technical Guidance and Forms:

COMMENT: This section should be broadened to include guidance documents to assess water quality standards (F.A.C. 62-302 Numeric Nutrient Standards, etc.)

(1)(l) Missing date of reference document

(1)(n) Missing date of reference document

(1)(o) Kidder, G. and R.D. Rhue, *September* 2003, "Soil Testing," UF/IFAS Circular 239, http://edis.ifas.ufl.edu/SS156.

(1)(p) Mylavarapu, R.S. and E.D. Kennelley, *February 2009* (COMMENT: February 2009

reference found later in this document – if this reference is to change, then 62-640.650(b)(1) will need to reflect that reference change as well) XXXX~~2009~~, "Extension Soil Testing Laboratory (ESTL) Analytical Procedure and Training Manual," UF/IFAS Circular 1248, http://edis.ifas.ufl.edu/SS312.

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. Facility permits shall specify the use or disposal of the facility's biosolids *and also specify required monitoring of the site which shall include groundwater and surface water monitoring to an extent protective of the environment*. Biosolids shall be managed in accordance with the facility permit and the requirements of this chapter.

(2)(b) COMMENT: This section needs to have the wording strengthened to ensure that the Treatment facility's "Biosolids Plan, Form 62-640.212(2)(a)" is protective of the environment.

(3)(d) All biosolids application site*s* ~~permit applications~~ shall be considered projects of heightened public interest in accordance with subparagraph *62-110.106(7)(a)(1)* ~~62-110(7)(a)1., F.A.C.~~

(3)(g) The application site shall be self-contained and must not discharge surface water runoff during a 100-year/24-hour storm event.

(3)(h) Include survey data of the historical drainage pattern of the site. This information shall include the existing contours of the application site, elevation of all swales, ditches, streams, wetlands within 2500 feet of the application area. The information shall show the ultimate outfall for the application site and how discharge from the application site will be contained.

(3)(i) The permit application shall include a surface water, wetland and groundwater monitoring plan prepared by a geotechnical engineer licensed in the State of Florida.

62-640.400 Prohibitions.

COMMENT: Should the Department not be able to enact regulations ensuring that the land application f Biosolids is done in a manner protective to the environment and restoration efforts verified through water quality monitoring, then perhaps they should consider adding the Upper St Johns River Basin to the list of prohibited zones for application (similar to (11) Lake Okeechobee watershed and (12) Caloosahatchee River and St Lucie River watershed prohibitions).

62-640.500 Nutrient Management Plan

(1) COMMENT: The Nutrient management plan should include information on water quality monitoring (groundwater and surface water). Reliance on FDACS Best Management Practices program does NOT provide FDEP with adequate information needed to "ensure protection of the environment".

(5) COMMENT: The NMP should include monitoring requirements (groundwater and surface water) similar to F.A.C. 62-610.

(5)(c) Include a description of how the NMP complies*, or will comply,* with any applicable

basin management action plans (BMAPs) adopted under Sections 403.067(7), and 373.807, F.S.

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

(5)(f) COMMENT: Open ended – how is one to know if levels are increasing on a site if no monitoring is required. No definition of what an "increase" is. Does not appear to be an actionable item. "Discussion" is a weak regulatory term for an important item. Applicant should be required to affirmatively demonstrate that these risks are minimal and would be effectively neutralized rather than just "discussed".

(5)(g) COMMENT: Need to define "pathways" such as Soil horizons, water tables, etc. "Discussion" is a weak regulatory term for an important item. Applicant should be required to affirmatively demonstrate that these risks are minimal and would be effectively neutralized rather than just "discussed".

(5)(i) COMMENT: Application rates should be based on the lowest limiting factor and not Nitrogen and Phosphorus. Additionally, how is "reasonable assurance" assessed for higher rate applications? Presumed compliance with FDACS BMPs does not show environment is being protected. This needs to be done through water quality monitoring, not assumptions.

(5)(i)(l) COMMENT: Application rates for Phosphorus to be defined. The focus is on Phosphorus Storage Capacity, but the draft rules don't specify which method is to be used to assess this criteria. Additionally, where is the science behind increasing application after cuttings of hay (is the hay removed from the site – who oversees/approves this)? Is 4 cuttings of hay per year excessive – who verifies/reports hay cuttings in order to determine extra P2O5 allocation?

(5)(i)(6) COMMENT: Wastewater plants adjust operations throughout the process depending on influent and effluent characteristics. Basing applications on estimates may not be protective to the environment, as the estimate may not be representative of the loads applied to the land.

(5)(j) The NMP shall include a self-contained area and must not discharge surface water runoff during a 100-year/24-hour storm event.

(5)(k) Monitoring of any surface water or wetland every 500 feet within 2500 feet of site will be required quarterly with results submitted to the Department within 28 days after the end of the monitoring period.

(5)(l) Monitoring of groundwater shall be required at the limits of the self-contained site at intervals of 500 feet to a distance of 2500 feet from the application site.

(8)(a) COMMENT: Who is performing the annual review of the facility NMP? If changes are made, who from the regulatory side acknowledges receipt of the changes and approves? References to Nutrient Management planners appears to be dated terminology, as we understand it no Nutrient management planners exist or are signing off on the NMPs, rather Professional Engineers authorization is accepted after a desktop review.

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

(1) COMMENT: This section currently gives the FDEP authority to adjust monitoring, record keeping or reporting. This section should be modified to require surface and groundwater monitoring.

(3)(a)(1) .. Monitoring for water extractable phosphorus shall follow Pennsylvania State University_____, which the Department adopts and incorporates by reference. COMMENT: Method needs to be defined (in place of blank underline) and standardized.

(3)(b)(2) Remove exemption for Class AA sites. Land application of Class AA still poses a potential threat to groundwaters and surface water run-off.

(3)(c)(1) Remove arbitrary threshold and just require that all sites perform groundwater and surface water monitoring. Does FDEP maintain staffing adequate to cover this item – and who is looking at the results for trends or trigger levels?

(3)(d)(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.

(3)(d)(2) If the receiving water is a stream or canal, the surface water monitoring shall be conducted on a quarterly basis at points 500 feet upstream and 500 feet downstream from where runoff from the application site enters state waters. If the receiving water is a lake, estuary, or coastal water, the surface water monitoring shall be conducted on a ~~quarterly~~ monthly basis 500 feet downstream from where runoff enters the water body and at an approved background monitoring point.

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

COMMENT: There is no language to restrict land application of Biosolids (in any form) if such a practice causes or contributes to an existing impairment. How do these monitoring parameters compare to wastewater discharge standards that we are held to? Since Biosolids are a by-product of WWTF, the standard for clean discharge water for WWTF should be the standard for biosolid land applications and are to be part of the NMP>

(6)(e)(2)(f) Measures to prevent leaching *or run-off* of nutrients are implemented. COMMENT: Measures such as??

(6)(f)(9) COMMENT: Suggest a higher frequency such as monthly, seasonally

(6)(f)(10) 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. The permittee ~~can~~ *shall* indicate the seasonal high ground water level for the application site in the Biosolids Site Permit Application, Form 62-640.210(2)(d), by use of soil survey maps. 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. Biosolids shall not be applied on soils having a seasonal high ground water table less than 15

centimeters from the soil surface or within 15 centimeters of the intended depth of biosolids placement. COMMENT: Department should specify an acceptable date range of soil survey maps and require the most current, up to date information be used. Additionally, types of soils should be taken into account in determinations of depth to water as different types of soils have different characteristics that may allow for more rapid transport to groundwater.

General comments:

IRCDUS is very interested in learning what comments the recently appointed Chief Science Officer for the Department, Dr. Thomas Frazer, has regarding how the draft Biosolids rule is protective of the environment, or what changes may be recommended after their evaluation.

The land application of biosolids makes any nutrient run-off associated with that practice fall into the non-point source category as far as nutrient loadings are concerned. Point source loadings to our section of the Indian River Lagoon are documented to represent only 1 to 3% of the total nutrient loading, yet a majority of the regulations and monitoring requirements are focused on these point-source discharges. Focusing more efforts on reducing 98% of the nutrient loading to the Lagoon might be a better effort for the regulatory agencies and that should be considered during this rule making process.