

Chapter 62-640, F.A.C. Biosolids

*ERC Adoption Hearing
December 1, 2009*

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Presentation Outline

- **Scope of Chapter 62-640, F.A.C.**
- **Rulemaking history**
- **Proposed revisions, including:**
 - **Site permitting**
 - **Nutrient management plans (NMPs)**
 - **Class AA distribution and marketing**
 - **Site management requirements including alkaline-treated biosolids provisions**
- **Statement of Estimated Regulatory Cost**



Biosolids : the other product of a wastewater treatment facility



Unlock the beauty of your plants naturally



GreenEdge[®]

Slow Release Fertilizer
with Organic Nitrogen



Environmentally Friendly
Adds Organic Matter to Your Soil
Grows Your Plants with Less Water

Net Weight: 15 lbs. (6.81 kg)



Current Biosolids Regulations in Florida

- **Federal - Title 40 CFR Part 503 (EPA)**
- **State - Chapter 62-640, Florida Administrative Code**
 - Recent legislation has additionally restricted biosolids
 - DOH regulates septage from septic tanks under Chapter 64E-6, F.A.C.
- **County Ordinances**



Chapter 62-640, F.A.C.

- **Regulates the beneficial use of biosolids**
 - Land application
 - Distribution and Marketing
- **Chapter includes:**
 - Treatment requirements
 - Pollutant limits
 - Land application/site management requirements
 - Distribution and marketing requirements
 - Biosolids treatment facility provisions
- **Last amended in 1998**



Rulemaking Objectives

- **Improve site management and accountability**
- **Address critical nutrient issues in Florida**
- **Address continuing and heightened public concerns and county interest**
- **Support public confidence in the beneficial use of biosolids**



Rulemaking History

- **Three scoping workshops were held for all stakeholders in 2002/2003**
- **Five Technical Advisory Committee meetings were held**
- **Two public workshops on draft rule were held in 2008**
- **ERC briefing was held August 20, 2009**



Proposed Revisions to Chapter 62-640, F.A.C.



Rule 62-640.100, F.A.C.

Scope, Intent, Purpose and Applicability

- “Biosolids” replaces the term “domestic wastewater residuals”
- Encourages highest standards, public acceptability
- Addresses applicability to existing sites and treatment facilities
 - Existing facilities would be subject to the revised rule at permit renewal
 - Existing sites would be permitted prior to accepting biosolids from a facility subject to the revised rule, or no later than January 1, 2013.
 - Site permit would govern the site



Rules 62-640.200 and 210, F.A.C. Definitions and General Technical Guidance and Forms

- **Definitions – minor revisions made, including the addition of “fertilizer” and revisions to “restricted public access”**
- **Updated existing technical guidance documents and added several including ones related to nutrient management planning**
- **Forms – primarily revised to accommodate site permitting**



Rule 62-640.300, F.A.C.

General Requirements

- **Site permits would be required for each land application site**
 - Simplifies permitting, record keeping, reporting
 - Permits sites as a biosolids management facility
 - Exclusive sites can be included in treatment facility permit
 - Existing sites to be permitted by January 1, 2013
- **Treatment facility permit for land application will identify sites to be used**
- **Requires treatment facility storage plan**



Rule 62-640.400, F.A.C.

Prohibitions

- **New provision clarifies that spilling biosolids or tracking biosolids off-site by the hauling vehicle is prohibited**
- **Includes a provision prohibiting the land application of biosolids within the primary and secondary protection zones identified in the Wekiva Study Area (Rule 62-600.500, F.A.C., Section 369.318, F.S.)**



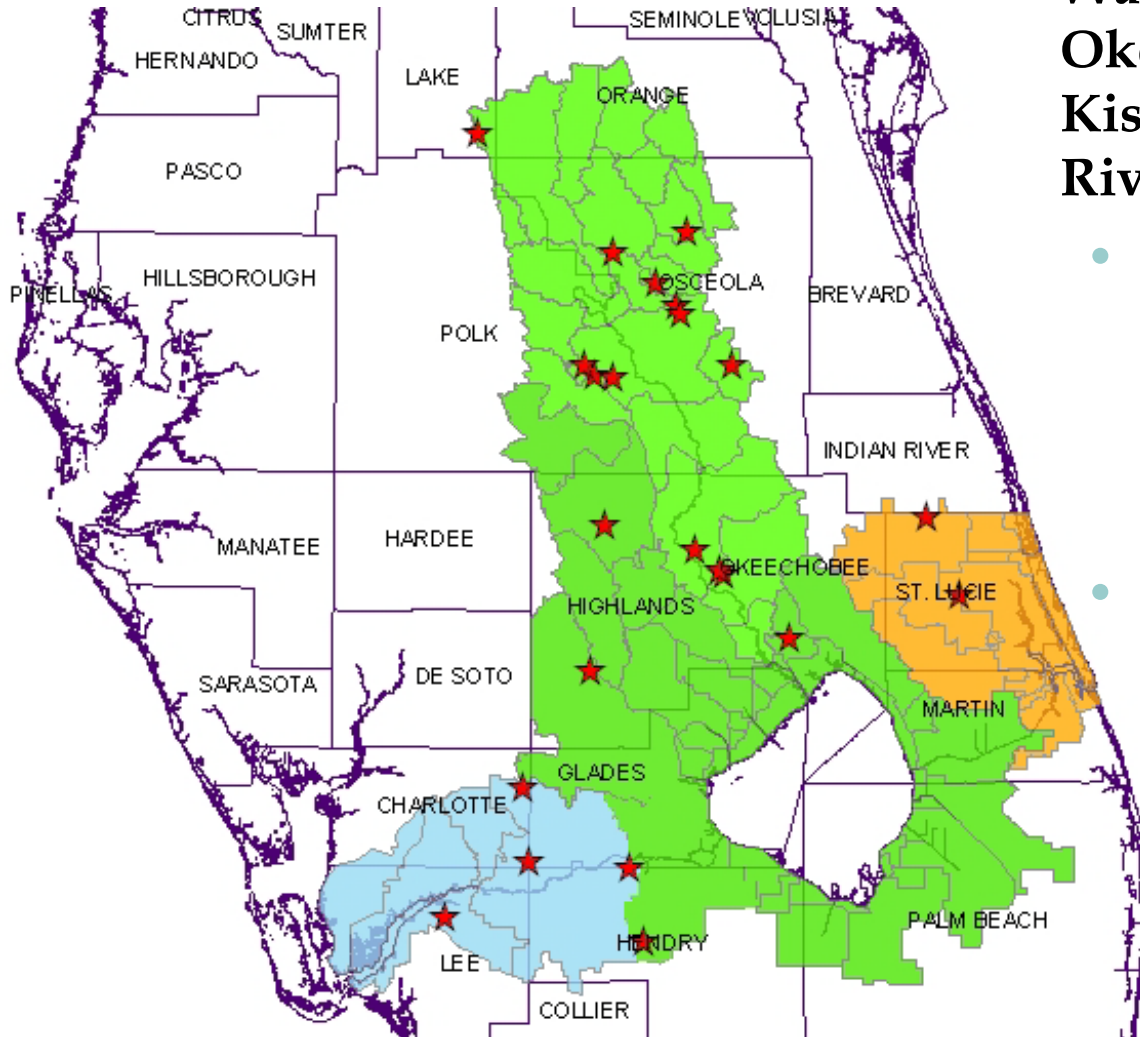
Rule 62-640.500, F.A.C.

Nutrient Management Plan (NMP)

- **NMPs replace Agricultural Use Plans (AUPs)**
 - More comprehensive; consider phosphorus, crop yields
 - References guidance from USDA/NRCS (Code 590)
 - Submitted with site permit application
 - Prepared by certified nutrient management planner or P.E. with nutrient management expertise
 - Rule specifies minimum items to be addressed in NMP
 - Addresses biosolids unique considerations, five year plan
- **Demonstration required by Section 373.4595, F.S., to be submitted with the NMP**



Northern Everglades and Estuaries Protection Program, 373.4595, F.S.



- **Watersheds - Lake Okeechobee (including Kissimmee River), St. Lucie River, Caloosahatchee River**
 - After December 31, 2007, requires applicant to submit a demonstration of no-net loading for phosphorus/nutrients
 - Sites are expected to be eliminated or severely limited within three years
 - 20 of 43 original sites are inactive
 - Decreasing volume

Rule 62-640.600, F.A.C.

Pathogen Reduction and Vector

Attraction Reduction

- **Pathogen requirements for Class AA and Class A biosolids**
 - **Removing 40 CFR Part 503.32(a)(6), also known as “Alternative 4: Sewage Sludge Treated in Unknown Processes”**
 - **Clarifying the implementation of 40 CFR 503.32(a)(5), also known as “Alternative 3: Sewage Sludge Treated in Other Processes”**



Rule 62-640.650, F.A.C.

Monitoring, Record Keeping, Reporting and Notification

- **Monitoring**
 - **Biosolids monitoring**
 - Requires analysis of the calcium carbonate equivalent for alkaline-treated biosolids
 - Establishes quarterly monitoring for biosolids treatment facilities
 - Adjusts the quantity ranges used for biosolids monitoring frequencies
 - Requires consideration for re-sampling stored Class AA biosolids
 - Adds site soil testing (fertility and background)
 - Requires ground water monitoring in certain situations



Rule 62-640.650, F.A.C.

Monitoring, Record Keeping, Reporting and Notification (continued)

- **Record Keeping**
 - Requires hauling records between facilities and sites
 - Requires land application records to be kept by the site
 - Onsite logs and records required at each site
- **Reporting**
 - Site annual summary - reports site loading, copies to be sent to facilities
 - Facility annual summary - reports amounts sent to sites
- **Notifications**
 - 60 day notification before site stops receiving biosolids
 - Notification to owners of grazing animals when the cumulative loading of molybdenum reaches 35.7 lbs/acre



Rule 62-640.700, F.A.C.

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

- Requirements for alkaline-treated biosolids
- Storage revisions including temporary storage/staging
- Signage revisions for Class B biosolids sites
- Cumulative loading requirement revisions
- New setbacks for long-term storage, property lines
- Ground water table revisions, site slope revisions, and new frequently flooded area requirements
- New Class B site restrictions



Rule 62-640.800, F.A.C.

Additional Requirements for Land Application at Reclamation Sites

- **Non-substantive revisions**



Rule 62-640.850, F.A.C.

Distribution and Marketing of Class AA Biosolids

- Clarifies exemptions for distributed and marketed biosolids
- Requires distributed and marketed biosolids to be “fertilizers”
- Requires management information to be submitted with the facility permit application
- Adds additional requirements for out-of-state facilities
- Revises reporting requirements



Rule 62-640.860, F.A.C. Other Solids

- **Non-substantive revisions**



Rule 62-640.880, F.A.C.

Additional Requirements Related to Biosolids Treatment Facilities

- Establishes requirement for evaluating an industrial sludge prior to accepting the sludge for treatment
- Requires reliability features for larger biosolids treatment facilities



Statement of Estimated Regulatory Cost - SERC



SERC - Department Costs

- **Potential increase in permit related activities from requirement for site permits**
- **Minimal cost and no increase in staff requested**



SERC - Affected Entities

- **Entities likely affected by the proposed revisions**
 - Domestic wastewater treatment facilities, biosolids treatment facilities, septage management facilities
 - Biosolids haulers
 - Owners and operators of land application sites
 - Distributors of Class AA biosolids (out-of-state)
- **Estimated costs**
 - About \$10 increase to existing \$300 dry ton cost for a moderately sized facility
 - Alkaline-treated biosolids could have much higher costs for equipment to incorporate biosolids into soil



SERC – Small Businesses, Small Counties and Cities

- **Most of the entities are likely to be small businesses**
 - Over 1500 privately-owned wastewater treatment facilities
 - Biosolids treatment facilities/septage management facilities
 - Biosolids haulers
 - Owners and operators of land application sites
- **32 small counties, 94 facilities owned by small cities**
 - Typically small wastewater treatment facilities
 - Privately-owned facilities likely to be small
 - Small cities may also be in small counties



SERC - Example Costs

Fertilizer requirement	\$200 License, \$1000 Bond, \$200 bagged specialty fertilizer registration, \$1.50 per ton fee (\$240 for the distribution of 160 tons)
Site Permit Fee	\$1000
Site NMP	Free to \$20,000
Soil Fertility Testing	IFAS - \$7 - \$15 per sample
Initial Soils Metals	\$150/sample, every 50 acres
Signs	\$420-600 for unfenced sites
Ground Water Monitoring	\$10,000 - \$30,000 for wells, \$80 per sample analysis/3 samples quarterly/\$960 per yr
Storage	Variable costs
Property line setback	Lose 1 acre for every 581 ft of straight property line (45 acres for square 1000 acres)
Increased monitoring	\$245 per sample analysis or an increase of \$735 to go from annual to quarterly
1320 ft setback for surface application of alkaline-treated biosolids or requirement to inject or incorporate	Potential loss of acreage to meet setback (maybe complete loss of site), or \$5000 to \$325,000 for injection/incorporation equipment
Calcium carbonate equivalency	\$76 per sample/\$304 annually for quarterly monitoring



SERC Conclusion

- Department costs are likely to be minimal
- Regulated community costs are not significant, except for land application of alkaline-treated biosolids (potential large equipment cost)
- Treatment facilities and haulers are likely to pass along any increased costs to their customers
- Other factors, such as county ordinances, have and will likely continue to play a more significant role in biosolids costs



For Additional Information

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DEP's Biosolids Webpage:

<http://www.dep.state.fl.us/water/wastewater/dom/reshome.htm>

DEP's Biosolids Rulemaking Updates

<http://www.dep.state.fl.us/water/wastewater/dom/resmake.htm>



Amendment 1: Forms

- **Amend 62-640.210(2) to allow the potential submittal of electronic forms**



Amendments 2 – 5: Section 373.4595, F.S.

- **Add new prohibitions to 62-640.400**
- **Revise NMP submittal requirement in 62-640.500(8)**
- **Add record keeping requirement in 62-640.650(4)(j)**
- **Add reporting requirement in 62-640.650(5)(d)**



Amendment 6 - Flooding

- Amend 62-640.700(11)(c) to also not allow land application on soils with a flooding frequency of “very frequent” and soils with a flooding duration of “long” or “very long”

