Department of Health
Statement of Estimated Regulatory Costs (SERC)

Division:	Disease Control and Health Protection
Board:	Not applicable
Rule Number:	64E-6.009, 64E-6.012
Rule Description:	Provisions for the installation of in-ground nitrogen-reducing biofilters and updating a standard, as well as recognizing the nitrogen-reducing capabilities of a subset of already-approved aerobic treatment units to be used to provide nitrogen reduction
Contact Person:	Dale Holcomb

Please remember to analyze the impact of the rule, NOT the statute, when completing this form.

A. Is the rule likely to, **directly or indirectly**, have an adverse impact on economic growth, private-sector job creation or employment, or private-sector investment in excess of $1 million in the aggregate within 5 years after the implementation of the rule?

1. Is the rule likely to reduce personal income?	☐ Yes	☒ No
2. Is the rule likely to reduce total non-farm employment?	☐ Yes	☒ No
3. Is the rule likely to reduce private housing starts?	☐ Yes	☒ No
4. Is the rule likely to reduce visitors to Florida?	☐ Yes	☒ No
5. Is the rule likely to reduce wages or salaries?	☐ Yes	☒ No
6. Is the rule likely to reduce property income?	☐ Yes	☒ No

Explanation: The rule as amended is not likely to, directly or indirectly, adversely affect the private sector because the rule only gives property owners a new option for meeting requirements created by statute.

The rule allows property owners who are required to participate in the Department of Environmental Protection (DEP) remediation plans for Outstanding Florida Springs to select a newly permitted type of nitrogen-reducing onsite sewage treatment system (nitrogen-reducing system). The Florida Springs and Aquifer Protection Act charges DEP to develop Basin Management Action Plans (BMAPs) to reduce nitrogen pollution attributable to the use of conventional onsite sewage treatment and disposal systems (conventional septic system). Under the current rule, in areas where a DEP BMAP prohibits a conventional septic system for new construction on a lot smaller than one acre, the property owner may elect to connect to sewer service, if available, or install the type of nitrogen-reducing system currently allowed under the existing rule.

Department of Health
Statement of Estimated Regulatory Costs (SERC)

The proposed rule creates a new option for property owners to elect an "in-ground nitrogen-reducing stacked biofilter" (INRB) as their nitrogen-reducing system. Because INRBs are less-costly alternatives to other nitrogen-reducing systems, in part because they require less oversight in the form of operating permit renewal and proof of maintenance contracts, the rule is expected to have no direct or indirect adverse impact on economic growth or private-sector job creation, employment, or investment.

If any of these questions are answered "Yes," presume that there is a likely and adverse impact in excess of $1 million, and the rule must be submitted to the legislature for ratification.

B. Is the rule likely to, **directly or indirectly**, have an adverse impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation in excess of $1 million in the aggregate within 5 years after the implementation of the rule?

1. Is the rule likely to raise the price of goods or services provided by Florida business?
☐ Yes ☒ No

2. Is the rule likely to add regulation that is not present in other states or markets?
☐ Yes ☒ No

3. Is the rule likely to reduce the quantity of goods or services Florida businesses are able to produce, i.e. will goods or services become too expensive to produce?
☐ Yes ☒ No

4. Is the rule likely to cause Florida businesses to reduce workforces?
☐ Yes ☒ No

5. Is the rule likely to increase regulatory costs to the extent that Florida businesses will be unable to invest in product development or other innovation?
☐ Yes ☒ No

6. Is the rule likely to make illegal any product or service that is currently legal?
☐ Yes ☒ No

Explanation: The rule is not likely to have an adverse effect, directly or indirectly, on competition, productivity, or innovation within or outside of Florida.

No later than July 1, 2018, new septic systems on lots less than one acre within a Priority Focus Area will be required to include enhanced treatment of nitrogen. The rule

does not require a property owner to elect a particular type of nitrogen-reducing system; instead, the rule gives property owners an alternative that costs less than the existing nitrogen-reducing systems currently available. The rule is not likely to have an adverse effect, directly or indirectly, on business competition, product quality, services, or research and development.

The Department estimates that approximately 30% of properties that will be required to use nitrogen-reducing systems under a DEP BMAP, will be suitable for installation of a less-expensive INRB system pursuant to the proposed rule. However, the inclusion of nitrogen-reducing onsite sewage systems is a new requirement and as such, there is no data available for the administration of this requirement onto new development in these areas of the state. Therefore, the estimates in this document, while derived from recent growth trends and existing development density, are subject to future economic forces, property owner's personal choice, and changing market forces that are not knowable at this time.

If any of these questions are answered "Yes," presume that there is a likely and adverse impact in excess of $1 million, and the rule must be submitted to the legislature for ratification.

C. Is the rule likely, **directly or indirectly**, to increase regulatory costs, including any transactional costs (see F below for examples of transactional costs), in excess of $1 million in the aggregate within 5 years after the implementation of this rule?

No. The rule is not at all likely to increase regulatory or transactional costs either directly or indirectly within five years after implementation.

The current costs to property owners who elect the nitrogen-reducing systems permitted under the existing rule are:

One-time costs	
Construction	$13,000
Permitting	$350
Recurring costs (adjusted for annual expense)	
Maintenance visits	$300 ($150 per visit X 2 visits per year)
Energy Cost	$100
Permitting	$50 ($100 every 2 years)

The new costs to property owners who elect the INRB nitrogen-reducing systems permitted under the proposed rule are:

One-time costs	
Construction	$8,200
Permitting	$350

Department of Health
Statement of Estimated Regulatory Costs (SERC)

Recurring costs	
Not applicable	$0
1. Current one-time costs	$23,162,000
Construction and Permitting	$13,350 per system x 347 installations per year x 5 years
2. New one-time costs	$14,834,000
Construction and Permitting	$8,550 per system x 347 installations per year x 5 years
3. Subtract 1 from 2	$-8,328,000
4. Current recurring costs	$450
Two Maintenance visits	$300
Energy (electricity)	$100
Permitting (operating permit)	$50
5. New recurring costs	$0
6. Subtract 4 from 5	$-450
7. Number of times costs will recur in 5 years	5,205
Based on estimated 30% eligibility for INRB nitrogen-reducing systems:	
Year 1	347 new installations
Year 2	347 new installations + 347 installations from year 1
Year 3	347 new installations + 694 installations from years 1 and 2
Year 4	347 new installations + 1,041 installations from years 1 through 3
Year 5	347 new installations + 1,388 installations from years 1 through 4
8. Multiply 6 times 7	$-2,342,000
REDUCTION in regulatory cost.	

9. Add 3 to 8 $-10,670,000[1]
   REDUCTION in regulatory cost.

If 9. is greater than $1 million, there is likely an increase of regulatory costs in excess of $1 million, and the rule must be submitted to the legislature for ratification.

D. Good faith estimates (numbers/types):

1. The number of individuals and entities likely to be required to comply with the rule. *(Please provide a reasonable explanation for the estimate used for the number of individuals and methodology used for deriving the estimate).*

   Zero.

   The Department's estimates for anticipated new construction within the primary focus areas, where there are approximately 146,000 parcels developed that are served by OSTDS, from a total of 800,000 developed parcels located in the 28 impacted counties, are derived from the overall growth rate of new onsite sewage systems in the affected counties and applying it to the fraction of OSTDS-developed parcels located on lots smaller than one acre within a priority focus area. Fluctuations in growth and changes in growth location trends would alter these estimates. The percentage of the estimated growth that may use the proposed INRB is based on the land area within the primary focus areas exhibiting soil conditions that are more conducive to the installation of the INRB technology. Using this methodology, the Department estimates that the owners of 347 properties are likely to **elect** to install the new type of system described in rule amendment.

   The DEP BMAPs apply to 28 counties. There are approximately 146,318 conventional septic systems located on lots smaller than one acre within the primary focus areas identified by the DEP BMAPs. Based on a 0.19% growth in the 3rd quarter of 2017, annualized to 0.79% yearly growth, the Department estimates that 1,156 owners in the affected counties could participate in the remediation plan developed by the DEP. Of that number, the Department estimates that the owners of 809 (70%) properties may elect to participate by installing a type of nitrogen-reducing system currently permitted under the existing rule.

   The Department estimates that the owners of the remaining 347 (30%) of the 1,156 properties who own land that may be suitably-sited (water table and restrictive soils (if any) beginning at least 36 inches deep) for installation of the new INRB nitrogen-reducing system are likely to elect to use an INRB system

[1] While not part of the proposed rule, homeowner grant programs available through the DEP may result in an even greater reduction in regulatory costs.

instead of a more expensive nitrogen-reducing system as permitted under the existing rule.

2. A general description of the types of individuals likely to be affected by the rule.

   Property owners installing a new onsite sewage and treatment disposal system on land of less than one acre in size within a primary focus area defined by a DEP BMAP for whom sewer is not currently available or planned and who choose to install an INRB to meet the requirements of DEP's remediation plan, instead of one of the nitrogen-reducing systems allowed under the existing rule.

E. Good faith estimates (costs):

1. Cost to the department of implementing the proposed rule:

   ☐ None. The department intends to implement the proposed rule within its current workload, with existing staff.

   ☒ Minimal. *(Provide a brief explanation).* As there is no increase in Florida Department of Health fees, the Department has requested and received an increase of $1.3M to cover the costs of the anticipated workload associated with permitting and inspection of the in-ground biofilters and the advanced nitrogen-reducing onsite sewage systems that will be installed as new systems plus those installed to eventually replace the existing onsite sewage systems in the impacted areas when the Florida Department of Environmental Protection enacts its onsite sewage remediation plans requiring nitrogen-reduction. This projected increase in workload costs to the Department are a result of the requirements of the Florida Springs and Aquifer Protection Act as a whole and is not limited specifically to the proposed systems in this rule.

   ☐ Other. *(Please provide a reasonable explanation for the estimate used and methodology used for deriving the estimate).*

2. Cost to any other state and local government entities of implementing the proposed rule:

   ☒ None.

   ☐ Minimal. *(Provide a brief explanation).*

   ☐ Other. *(Please provide a reasonable explanation for the estimate used and methodology used for deriving the estimate).*

3. Cost to the department of enforcing the proposed rule:

☒ None. The department will enforce the provisions related to the design, inspection, permitting, and installation of INRBs within its existing enforcement framework.

☐ Minimal. *(Provide a brief explanation).*

☐ Other. *(Please provide a reasonable explanation for the estimate used and methodology used for deriving the estimate).*

4. Cost to any other state and local government of enforcing the proposed rule:

☒ None. This proposed rule will only affect the department.

☐ Minimal. *(Provide a brief explanation).*

☐ Other. *(Please provide a reasonable explanation for the estimate used and methodology used for deriving the estimate).*

F. Good faith estimates (transactional costs) likely to be incurred by individuals and entities, including local government entities, required to comply with the requirements of the proposed rule. *(Includes filing fees, cost of obtaining a license, cost of equipment required to be installed or used, cost of implementing processes and procedures, cost of modifying existing processes and procedures, additional operating costs incurred, cost of monitoring, and cost of reporting, or any other costs necessary to comply with the rule).*

☒ None.

☐ Minimal. *(Provide a brief explanation).*

☐ Other. *(Please provide a reasonable explanation for the estimate used and methodology used for deriving the estimate).*

G. An analysis of the impact on small business as defined by s. 288.703, F.S., and an analysis of the impact on small counties and small cities as defined by s. 120.52, F.S.

A small business is defined in Section 288.703, F.S., as "...an independently owned and operated business concern that employs 200 or fewer permanent full-time employees and that, together with its affiliates, has a net worth of not more than $5 million or any firm based in this state which has a Small Business Administration 8(a) certification. As applicable to sole proprietorships, the $5 million net worth requirement shall include both personal and business investments."

A small county is defined in Section 120.52(19), F.S., as "any county that has an unincarcerated population of 75,000 or less according to the most recent decennial

census." And, a small city is defined in Section 120.52(18), F.S., as "any municipality that has an unincarcerated population of 10,000 or less according to the most recent decennial census."

The estimated number of small businesses that would be subject to the rule:

☒ 1-99 ☐ 100-499 ☐ 500-999
☐ 1,000-4,999 ☐ More than 5,000
☐ Unknown, please explain:

Five percent (5%) of the onsite sewage treatment and disposal systems in the state are on properties used for commercial, rather than residential, purposes. Assuming that every commercial-use property is a small business, of the estimated 347 properties estimated to elect to use the INRB permitted under the proposed rule, 17 (5%) could be small businesses.

☒ Analysis of the impact on small business:

Small businesses will experience significant cost-savings when the proposed rule is adopted. The estimated cost to install and permit an INRB is $4,800 less than the cost to install and permit the lowest cost nitrogen-reducing system available under the existing rule. Expenses to purchase and retain maintenance contracts will be eliminated, for those who elect to use a passive INRB, because passive INRBs do not require maintenance. Further, INRB owners will not incur on-going operating permit renewal costs because there is no operating permit required for these types of passive systems.

☒ There is no small county or small city that will be impacted by this proposed rule.

☐ A small county or small city will be impacted. Analysis:

☒ Lower impact alternatives were not implemented? Describe the alternatives and the basis for not implementing them. There is no lower cost alternative.

H. Any additional information that the agency determines may be useful.

☒ None.

☐ Additional.

I. A description of any good faith written proposal for a lower cost regulatory alternative to the proposed rule which substantially accomplishes the objectives of the law being implemented and either a statement adopting the alternative or a statement of the reasons rejecting the alternative in favor of the proposed rule.

Department of Health
Statement of Estimated Regulatory Costs (SERC)

☐ No good faith written proposals for a lower cost regulatory alternative to the proposed rule were received.

☒ See attachment "A".

☐ Adopted in entirety.

☐ Adopted / rejected in part. *(Provide a description of the parts adopted or rejected, and provide a brief statement of the reasons adopting or rejecting this alternative in part).*

☒ Rejected in entirety. *(Provide a brief statement of the reasons rejecting this alternative).*

Attachment A references "lower-cost regulatory alternative" (LCRA) received as comments to the rule. The LCRA proposes that the National Sanitation Foundation International approve all INRB technology, that levels of soil required for nitrification be eliminated if nitrification is otherwise achieved, that nitrogen target levels be lowered for certain technologies (including those of the LCRA proposer) for system repairs, and that nitrification and denitrification layers meet the same setback requirements as in conventional septic systems.

The LCRA does not include any data from which the Department might estimate the costs and impact of the proposed LCRA. The LCRA's proposal to eliminate the proposed passive INRB system would eliminate a more cost-effective option for homeowners. Further, the LCRA does not include any evidence that its technology reduces nitrogen levels as required by statute for any nitrogen-reducing system installed under the DEP remediation plan. The LCRA does not include an economic comparison of the LCRA and the proposed rule. The LCRA does not include a good faith estimate of regulatory and transactional costs, or a good faith estimate of the number of potentially affected individuals and businesses. Lacking any information as to the impact of the proposed rule compared to the proposed LCRA, the Department is obliged to reject the proposed LCRA.

# # #

Proposals for Lower Cost Regulatory Alternatives

PEI submits the following lower cost regulatory alternatives to the Proposed Rule pursuant to 120.541, Florida Statutes: those suggested revisions or changes set out in Comment Nos. 1, 4, 6, and 7.

Comment 1: 64E-6.009(7) et seq.

Proposed Language

(7) In-ground Nitrogen-reducing Biofilters (INRB) – Nitrogen-reducing media layers, also referred to as media layers, may be placed beneath the drainfield provided the resulting system meets all requirements of this chapter except as noted in this subsection.

Suggested/Revised Language in ~~strike~~/add format

~~(7) In-ground Nitrogen-reducing Biofilters (INRB) – Nitrogen-reducing media layers, also referred to as media layers, may be placed beneath the drainfield provided the resulting system meets all requirements of this chapter except as noted in this subsection.~~

Rationale

PEI proposes deferring to the existing denitrification systems that are already certified to NSF/ANSI Standard 245 performance levels. Attempting to create a non-proprietary onsite wastewater system from scratch without years of field testing, third party testing, and strenuous evaluation and examination by the regulatory and onsite community is inviting problems. By deferring to the denitrification systems already proven to work by NSF/ANSI certifying bodies, that have conducted testing and evaluations of denitrification systems in strict accordance with NSF/ANSI Standard 245, Florida and its citizens can rely on proven, demonstrated systems. This approach would provide the citizens of Florida with a system that is:

- Tested under a standardized process applicable to all technology,
- Sampled under a schedule and methodology that is representative of field performance, and
- Evaluated for critical aspects of the system not currently addressed such as:
    - Startup periods, working parent households, wash days, vacation, power outages, and other real-life situations that are required to be evaluated for all technologies.

This process would also provide three important documents that are critical to the successful operation of the product in the marketplace, namely a test report that aggregates data in a standardized format, a design and installation manual, and an operation and maintenance manual.

Relying on NSF/ANSI Standard 245 is a cost-effective way to have a benchmark for denitrification removal in Florida; this will also protect the investment made by the constituents that install these systems, and forestall any potential damage sustained by not evaluating the system using a standardized protocol. Further, if FL DOH agrees with the changes suggested by PEI in its comments to 64E-6.012 (Comments Nos. 8-18), which would allow for passive wastewater treatment systems to enter the aerobic treatment unit marketplace, it would provide for lower cost alternatives without the burdensome maintenance and operating requirements commonly associated with traditional, mechanical ATUs.

Comment 4: 64E-6.009(7)(a)1

Proposed Language

64E-6.009(7)(a)1. The drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and colors in subparagraph 10. below and shall extend at least one foot beyond the perimeter of the drainfield. The drainfield shall be centered above the sand fill area.

Suggested revised language in ~~strike~~/add format

64E-6.009(7)(a)1. Unless nitrification has already occurred, ~~T~~the drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and colors in subparagraph 10. below and shall extend at least one foot beyond the perimeter of the drainfield. The drainfield shall be centered above the sand fill area. Nitrification is understood to mean performance which is consistent with the purpose of the nitrifying layer described in 64E-6.009(7)(a)10.

Rationale

FL DOH needs to publish the nitrification levels provided by the nitrifying layer in the configuration of the proposed INRB. The nitrifying layer is obsolete if a substantially similar level of nitrification has already occurred. Many systems which accomplish nitrification are more expensive and have an increased vertical profile due to the nitrifying components; requiring this layer when nitrification has already occurred imposes an added expense, potential for increase vertical profile, and places an unnecessary burden on competing systems in the marketplace. This will allow for lower cost alternatives to perform the function of nitrification in place of the proposed nitrifying layer.

Comment 6: 64E-6.009(7)(a)13

Proposed Language

13. Drainfield repair shall not necessitate media replacement provided the media has been in use for less than 10 years or if sampling within the previous 12 months shows denitrification at or above the target level for mean total nitrogen (TN) removal efficiency which shall be a minimum 65%.

Suggested revised language in ~~strike~~/add format

13. Drainfield repair shall not necessitate media replacement ~~provided the media has been in use for less than 10 years or~~ if sampling within the previous 12 months shows denitrification at or above the target level for mean total nitrogen (TN) removal efficiency which shall be a minimum of ~~65~~50% to be determined by sampling protocols that will be deemed acceptable for use with combined treatment and dispersal systems approved for use in Florida.

Rationale

If FL DOH is setting nitrogen removal goals to be met by INRB systems, and requiring Florida-based demonstrations of denitrification, then FL DOH needs to specify the sampling procedure it has used and will require third parties to use in order to ascertain performance levels of these INRB systems. These rules do not specify a procedure for accurately monitoring the denitrification performance of these systems, let alone basic sampling protocols or placement. Further, any sampling procedure that is being considered by FL DOH should have a history of successful field use in similarly configured systems.

PEI would also request that FL DOH explain why the target level for mean total nitrogen (TN) removal efficiency" is 65% rather than the 50% removal target of NSF/ANSI Standard 245. By relying on the performance-based parameters of NSF/ANSI Standard 245 (rather than an arbitrary time-based guideline), there are more options available to system owners, and thus lower costs due to the increased range of systems available.

Comment 7: 64E-6.009(7)(a)14

Proposed Language

14. Setback distances to the denitrification media or soil material directly above denitrification media extending to the infiltrative surface of the drainfield shall be reduced by the following:

a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is ≤5 feet, the setback shall be reduced to one foot.

b. Where the required setback is ≥10 feet, the setback shall be reduced by five feet.

c. Setbacks to all other parts of the system shall be in compliance with the requirements in this Chapter and section 381.0065, Florida Statutes.

Suggestion

All aerobic treatment systems, alternative drainfields, and performance-based treatment systems meeting wastewater treatment requirements should have setbacks that utilize similar reductions as well.

Rationale

DOH is acknowledging the denitrification media layer for the purposes of calculating setbacks and reductions to same, but NSF/ANSI Standard 245 certified denitrification systems, conventional systems, and alternative systems, do not get this same advantage. FL DOH should apply reductions for treated wastewater to all proven performance systems to ensure consistency and a level playing field across all categories of treated wastewater products. This would also ensure that system owners can choose from a larger variety of wastewater treatment options than might otherwise be available to them, allowing for fair competition and innovation in this marketplace, potentially lower costs, and easier placement of the system on smaller lots.