

**The Growing Consensus:
The State's Springs Clean-up Plans Won't Clean Up Our Springs**

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Contact: Bob Palmer
Executive Committee Member,
Florida Springs Council
352-359-1965

Bob Knight
Executive Committee Member,
Florida Springs Council
352-538-6620

The “Florida Springs and Aquifer Protection Act” of 2016 sets a twenty-year target for restoration of twenty-four impaired Outstanding Florida Springs (OFS) and a July 1, 2018 deadline for release of Basin Management Action Plans (BMAPs) describing the necessary clean-up strategies. Within the last 10 days, the Department of Environmental Protection (FDEP) released the last of 13 BMAPs covering these 24 impaired springs.

Today, the Florida Springs Council released seven letters to FDEP outlining significant concerns with these draft BMAPs. One letter – signed by FSC and 23 member organizations – discusses shortcomings common to multiple BMAPs. Six other letters are more local in their focus and cover issues related to the clean-up plans for these springs: Deleon, Gemini, Santa Fe River/Ichetucknee, Volusia Blue, Wakulla, and Wekiva.

These seven letters are attached, as is a “Summary of Outstanding Florida Springs Basin Management Action Plans – June 2018”, prepared by the Howard T. Odum Florida Springs Institute (FSI). The FSI report includes the following conclusions:

- Total nitrogen applied to the land surface affecting the 24 impaired OFS is 122 million pounds per year. On average about five pounds per acre per year are from atmospheric inputs and 22 pounds per acre per year are anthropogenic.
- Major human sources of nitrogen to the land surface for these OFS contributing basins average: farm fertilizer (9.5 lbs N/ac/yr), livestock wastes (8.6 lbs N/ac/yr), urban fertilizer (1.7 lbs N/ac/yr), septic systems (1.6 lbs N/ac/yr), and municipal wastewaters (0.4 lbs/ac/yr).
- FDEP estimates that about 20 million pounds of nitrogen per year reach the Floridan Aquifer in the springheds for these OFS, with one half from synthetic nitrogen

fertilizers. Agricultural inputs dominate the anthropogenic nitrogen loads to the aquifer and OFS at about 70% of the total.

- The draft BMAPs only address 12.7 million pounds or about 63% of that load.
- FSI estimates that achieving the legislatively mandated OFS restoration goals will necessitate a reduction of nitrogen loading to the land surface by about 79 million pounds per year.
- Fertilizer use will need to be reduced by at least 68% to achieve the springs restoration goals. More than 300,000 existing septic tanks will also need to be replaced with advanced nitrogen-removing systems or converted to municipal wastewater facilities, at an estimated cost of \$4.5 billion. Regional populations of livestock will need to be reduced significantly.
- The first springs BMAP, finalized in 2012 for the Santa Fe River, relied heavily on implementation of agricultural Best Management Practices (BMPs). Following four years of intensive monitoring of nitrate nitrogen in groundwater and springs, FDEP concluded there was no measurable improvement in that BMAP area. Therefore, advanced BMPs that include nitrogen reductions of 80% or more at the land surface are needed – e.g. conversion from intensive row crop or confined animal agriculture to low-intensity managed forests.
- Overall in Florida’s Springs Region, FSI estimates that the required reduction in anthropogenic nitrogen loading is 280 million pounds per year, with half from reduced fertilizer use and the rest through improvements in septic systems, wastewater systems, and livestock waste management.
- New septic systems throughout Florida’s Springs Region should only be approved on lots of at least 3 to 5 acres.
- One cost effective approach to solving this problem is enactment of a fee on all nitrogen loads to the land surface and aquifer. Septic system owners should also be charged a fee comparable to what customers of public wastewater facilities pay.

FSC’s letter to FDEP lists a number of concerns common to multiple BMAPs:

- Compliance with the law. The Springs Protection Act lays out specific requirements for what must be included in springs BMAPs – for example, “a list of all specific projects and programs identified to implement a nutrient total maximum daily load”, including a priority ranking, a cost estimate, and a nutrient load reduction target for each. This requirement appears to have been ignored in many of the draft BMAPs.
- Overly optimistic assumptions. Nitrogen-reducing benefits from many listed projects appear to be significantly exaggerated.
- Lack of specificity. Nitrogen from septic tanks is the primary source of nitrate in some OFSs. Strategies for dealing with this issue are incomplete or overly optimistic, or both.

- Poor documentation. Research citations justifying gains from agricultural BMPs are poorly documented and do not support FDEP's predicted nitrogen removal estimates.
- Nitrogen Source Information Loading Tool. NSILT was used to estimate source contributions to groundwater but not to calculate required reductions at the land surface. As a result, estimates of the amount of nitrogen that must be reduced to reach the 20-year goals are significantly underestimated.
- Growth. The BMAPs generally fail to account adequately for future growth in resident/tourist populations and in agricultural activity.

All seven letters make concrete suggestions about necessary changes that springs advocacy groups would like to see before BMAP approval. Given that the content of the final BMAPs may change significantly from the draft language, none of the letters at this time express a commitment to seek administrative relief. To date, no BMAP in Florida has been administratively challenged; if administrative relief is sought, affected groups or individuals would have to file a request for an administrative hearing within 21 days of the BMAP's approval by the FDEP Secretary.

The Florida Springs Council (<http://www.floridaspringscouncil.org>) is comprised of forty-five member organizations from all over the State working together to promote the restoration, preservation, and protection of Florida's springs.

Wakulla Springs in 2015: Why we need effective BMAPs.



Photo by John Moran, Springs Eternal Project/Florida Springs Council