



Pond Algae, Fertilizer, Irrigation and Us

By The Rivendell Ponds and Preserves Committee

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This article addresses the benefits and consequences of the choices we all make, as Rivendell homeowners, relative to fertilizer application and irrigation. In short, our choices help our lawns and shrubs look good, but what we do and how we do it, have significant consequences relative to the management of our ponds. It is to our advantage to comply with sensible Sarasota County regulations regarding fertilizer application and control, as well those that apply to our irrigation choices.

Pond algae is well-understood and is part of a group of naturally-occurring organisms that bloom in warm water. The presence of nutrients, such as nitrogen and phosphorous, exacerbates this effect. In recognition of this, Sarasota County has an Ordinance, No. 2007-062, which makes specific recommendations to limit runoff from fertilizer. It specifies what kinds of fertilizer should be used, when and where to avoid application (e.g., during the summer or within 10 feet of a pond or preserve), and other steps (such as a six-foot-wide Low-Maintenance Zone around ponds). This Ordinance makes a lot of sense and should be taken seriously. See below for details.

We currently manage pond algae at Rivendell by applying a relatively-toxic-but-approved herbicide that kills the unsightly algae. This makes our ponds more attractive, for sure. Unfortunately, more than just the floating algae is killed, and fish, turtles, amphibians and the associated abundance of birds are all affected. There are other ways to control the algae, including low-toxicity chemicals, aerators and floating islands. The Committee will be investigating these ideas in the coming months. However, the biggest contributor to algae in our ponds is runoff of fertilizer from rain and irrigation.

According to a study done for Sarasota County by Johnson Engineering (2012), up to 40% of the nutrient load to ponds comes from irrigation runoff. Sarasota County makes recommendations regarding irrigation, primarily to conserve water, but these rules also help to control nutrient runoff. See reference below for details.

Our interconnected ponds are an engineered system to collect runoff of both rain and irrigation from all of Rivendell. When full, the ponds discharge through level-control structures called weirs into South Creek, and ultimately into the Gulf. During the dry season, our ponds have a low water level, below the outlet weirs, so fertilizer-laden irrigation runoff enriches the ponds with nutrients, but there is no dilution effect from rain. Then, with the warmer weather and rains, the nutrient-rich, warm pond water blooms with algae and is also discharged. The extent to which we need to control this algae with chemicals depends directly on the extent of nutrients that have entered the ponds.

All homes in Rivendell have lawns, and we also have substantial areas of community-maintained grass. Each of these gets fertilized and irrigated, but the exact nature of the practice is up to us. A good place to start, on the path to manage nutrient inputs to our ponds, is for all of us to be fully aware of the Sarasota County regulations regarding fertilizer and irrigation, and to take the necessary

steps to do our part to benefit our community. It makes good sense for us to do the things under our control to minimize both pond algae and the use of toxic chemicals that have a deleterious effect on our wildlife population.

For additional details on managing fertilizer and irrigation, see www.rivendellcommunity.com under the heading: Ponds and Preserves Committee.

Photo Gallery



Healthy ponds attract more wildlife.

(Courtesy of N. Dobias)