



FLORIDA SPRINGS COUNCIL

Recommendations for an Improved Aquatic Herbicide Program in Florida

Presented by the Florida Springs Council (FSC), February 18, 2019

On January 28, 2019, the Florida Fish and Wildlife Conservation Commission (FWC) announced a temporary "pause" of its aquatic herbicide treatment program throughout the state.

According to FWC, invasive plants degrade and diminish Florida's waterways by displacing native plant communities. Some invasive aquatic plants pose a significant threat to human welfare and cause economic problems by impeding flood control and affecting recreational use of waterways.

FSC Members are concerned that the FWC's existing aquatic plant management program does not include safeguards to minimize the effects of aquatic herbicides on ecological and human health. In that regard, the following comments and recommendations are offered for revision of the existing program.

Comments:

- Florida springs research has provided evidence that spraying floating and emergent plants in springs and spring runs results in a significant sag in dissolved oxygen due to the creation of dead, rotting vegetation, and a significant decline in aquatic productivity. This decline in productivity results in a direct reduction in aquatic wildlife habitat structure and function.
- One common result of repeated aquatic herbicide treatments is the selection of primitive hardy bacteria like blue green algae over vascular macrophytes, resulting in uncontrollable algae blooms in natural water bodies.
- Aquatic herbicides accelerate the deposition of organic, flocculent sediments which in turn inhibit growth of native submerged aquatic vegetation.
- Some herbicides are known or suspected of being carcinogenic either in original form or as a result of formation of degradation by-products.
- Aquatic herbicides result in chemical pollution of surface and ground waters with poorly understood chemical interactions, degradation products, and persistent compounds causing detrimental effects on aquatic organisms and possibly humans who contact herbicides through recreation or in drinking water supplies.
- Application of herbicides often ignores non-target effects on recreation and aesthetics in downstream and downgradient water bodies.

Recommendations:

- FWC's mandate for using aquatic herbicides for "navigation and flood control" must be fully explained and put within definable boundaries.
- Alternatives to chemical control of aquatic plants should be thoroughly investigated and included in FWC's "tool kit" for navigation and flood-control.
- Whenever herbicide use is justified based on either recreation or habitat benefits, an impartial environmental assessment must be conducted to quantify environmental impacts. This assessment should compare pre and post aquatic ecosystem structure and function and compare any detrimental changes to the cost and benefits of the herbicide application.
- FWC must evaluate possible impacts of aquatic herbicide use on aquatic recreation.