



# Everglades Coalition

1000 Friends of Florida  
Arthur R. Marshall Foundation  
Audubon of Florida  
Audubon of Southwest Florida  
Audubon Society of the Everglades  
Broward County Audubon Society  
Caloosahatche River Citizens  
Association  
Clean Water Action  
Clean Water Network  
Collier County Audubon Society  
The Conservancy of Southwest  
Florida  
Defenders of Wildlife  
Earthjustice  
Everglades Law Center  
The Environmental Coalition  
Everglades Coordinating Council  
Environment Florida  
Florida Defenders of the  
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Florida Division of the Izaak  
Walton League of America  
Florida Keys Chapter of the Izaak  
Walton League of America  
Florida Keys Environmental Fund  
Florida Native Plant Society  
Florida Oceanographic Society  
Florida Sierra Club  
Florida Wildlife Federation  
Friends of Arthur R. Marshall  
Loxahatchee Wildlife Refuge  
Friends of the Everglades  
Izaak Walton League of America  
Last Stand  
League of Woman Voters of Florida  
Loxahatchee River Coalition  
Mangrove Chapter of the Izaak  
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Martin County Conservation  
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Sierra Club  
Sierra Club Broward Group  
Sierra Club Central Florida Group  
Sierra Club Loxahatchee Group  
Sierra Club Miami Group  
Tropical Audubon Society  
The Urban Environment League  
World Wildlife Fund

April 7, 2008

Janet Llewellyn, Director  
Water Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Mail Stop 3500  
Tallahassee, FL 32399-2400

Dear Ms. Llewellyn:

On behalf of the members of the Everglades Coalition we are requesting that the methodology underlying the proposed statewide stormwater treatment rule (the so-called Harper methodology, embodied in the report, Evaluation of Stormwater Design Criteria within the State of Florida) undergo peer review by independent qualified stormwater experts, such as those who provided peer review of the original Harper methodology for the U.S. Environmental Protection Agency. While we support the goal of the proposed statewide stormwater treatment rule and the general concept that post-development pollutant loadings should not exceed pre-development loadings, we are especially concerned with some of the assumptions in the Harper methodology that would actually weaken stormwater treatment requirements for developments proposed in wetlands.

As you recall, representatives of the Conservancy of Southwest Florida and the Clean Water Network of Florida met with you in your office on October 25, 2007, to discuss some of the scientific issues with the Harper methodology. The EPA-sponsored peer review of the 2003 Harper was discussed, and given the highly critical comments by the peer reviewers, it was generally agreed that another peer review should be performed of the revised Harper methodology before using it to support a statewide stormwater treatment rule. Furthermore, as you know, the U.S. EPA has called for another peer review of the methodology before it is used as the basis for a statewide rule.

The overall comments of the EPA peer reviewers in 2005 were decidedly negative. For instance,

- Reviewer Jonathan E. Jones stated, "The Method is lacking in two areas with respect to the state of knowledge that exists in stormwater management field: 1) The Method assumes that the Water Quality Capture Volume (WQCV) is fully recovered between storms, which is not always true: and the use of percent removal versus time to compute the efficiency of constituent removal in the

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BMPs. The result of the assumption regarding availability of detention storage is that overflow frequency is underestimated.”

- Reviewer Ben Urbonas stated under Final Conclusion, “The Harper Methodology is based on technologies that I would question for estimating pre- and post-development average annual loads of constituents in stormwater surface runoff.” In response to whether the Harper Methodology is an appropriate method for use, Reviewer Urbonas says, “In my judgment the answer is no. This is because the runoff volumes are not being calculated accurately and “percent removals” are used instead of average annual effluent concentrations. In addition, there appear to be questionable recommendations as to the vertical separation between bottom of retention pond and high groundwater table. The approach also appears to underestimate the “retention basin” volumes and, as a result, overestimates the pollutant loads removed.”
- When asked if the Method reflected the current state of knowledge, Reviewer Jonathan Jones said that “Onsite methods for stormwater management, often referred to as “low impact development” (...etc) are not mentioned, yet they are highly desirable for water quality management.”
- Reviewer Heaney stated, “The HM report does not benchmark their method against measured data for a catchment. Thus, it is impossible to judge its accuracy.”

One of the principal issues that members of the Coalition have expressed concerning the Harper method is the assumption that wetlands in their natural condition are sources of nutrient pollutant loadings for the pre-development loadings calculation. When representatives of the Conservancy and Clean Water Network met with you in October, it was generally agreed that wetlands would not be represented as a land use to calculate pre-development pollutant loadings. The Harper report and the current methodology being used by Dr. Harper for assisting his private clients in securing Environmental Resource Permits for developments in wetlands, however, still assume that wetlands are a source of pre-development pollutant loadings, and the draft DEP Design Requirements contain assumed nutrient loadings for all “undeveloped” land. This assumption has provided developers with an easy means of meeting the “post less than pre” standard without increasing the level of treatment required as compared to the presumptive criteria in existing rules.

Again, the EPA peer reviewers expressed sharp criticisms over this assumption for wetlands:

- Reviewer Heaney stated, “I am perplexed as to how the data in Table 5 (wetlands) and Table 6 (lakes/open water) can be used to represent land use data. I presume that these data represent samples taken within these systems and are not outflow data. Wetlands and lakes/open water are normally considered to be part of the subset of wet weather controls that can have a significant positive impact on water quality (emphasis added) . . . Extensive data on wetlands are available from numerous studies associated with the Everglades Restoration.”
- Reviewer Jones stated, “Based on our current (limited) understanding, it would not appear appropriate to use impacted wetlands as the basis for pre-development wetland characteristics”.

There were numerous other issues raised by the EPA peer reviewers, including fundamental issues regarding the stormwater runoff calculations embodied in the methodology and the use of deep ponds that likely interact with groundwater. These issues should also be addressed in another peer review if DEP intends to rely on the methodology.

Please contact Jennifer Hecker with the Conservancy of Southwest Florida (phone 239-262-0304 or [jenniferh@conservancy.org](mailto:jenniferh@conservancy.org)) or either of the Everglades Coalition Co-Chairs if you would like to discuss this letter.

Sincerely,



Mark D. Perry  
State Co-Chair



Sara Fain  
National Co-Chair

cc: Michael W. Sole, Secretary, FDEP  
Diana Sawaya-Crane, Executive Office