

Chapter 62-611 FAC Wetlands Application

Larry N. Schwartz Ph.D., P.W.S.

- ◆ Presentation Format
 - ◆ History of the Rule
 - ◆ Content of the Rule
 - ◆ Recommended Rule Changes

Chapter 62-611 FAC Wetlands Application

- ◆ History
 - ◆ Exemption for the Experimental Use of Wetlands
 - ◆ Warren S. Henderson Wetlands Protection Act of 1984:
Rules for the use of wetlands to receive wastewater
with protection of their type, nature and function
 - ◆ 1st rule adoption 1986: 17-6.055 FAC
 - ◆ 2nd rule adoption 1988: 62-611 FAC

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.100 Scope/Intent/Purpose
 - ◆ Landward extent of waters of the state
 - ◆ As additional data becomes available the department will reevaluate the rule

Reevaluation language eliminated from the rule but research and performance data indicate changes are warranted

Chapter 62-611 FAC Wetlands Application

- ◆ 611-110 Applicability
 - ◆ Rule only applies to domestic wastewaters
 - ◆ Prohibitions
 - Class I & II waters
 - Herbaceous wetlands except if dominated by cattail

Need to allow use of herbaceous wetlands with high quality reclaimed water

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.200 Definitions
 - ◆ Herbaceous and woody wetlands



Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.200 Definitions
 - ◆ **Treatment Wetland** - wastewater treated to secondary levels with nitrification
 - ◆ **Receiving Wetland** - wastewater treated to advanced wastewater treatment (AWT) levels
 - AWT

CBOD ₅	5 mg/l	TSS	5 mg/l
TN	3 mg/l	TP	1 mg/l

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.200 Definitions
 - ◆ Man-made Wetlands
 - constructed in uplands
 - not constructed for mitigation

Referred to as constructed in the literature
Rule should be changed to promote use for
waste treatment especially in conjunction with
receiving wetlands

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.200 Definitions
 - ◆ Hydrologically Altered Woody Wetlands
 - drainage resulting in substantial and continuing encroachment in upland species
 - ◆ Hydrologically Altered Herbaceous Wetlands
 - drainage resulting in substantial and continuing reduction in water levels
- Definitions limiting and difficult to demonstrate
- Many wetlands could be rehydrated and this use should be promoted
- The use of wetlands with invasive non-native species could be promoted

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.300 General Qualitative Design Criteria
 - ◆ Minimize channelized flow
 - ◆ Maximize sheet flow
 - ◆ Minimize erosion
 - ◆ No adverse effect on T&E

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.350 General Quantitative Design Criteria
 - ◆ Minimize alteration of natural hydroperiod
 - ◆ Annual average hydraulic loading rate shall not exceed **2 inches/week**
 - ◆ Except in hydrologically altered wetlands where it shall not exceed **6 inches/week**

Higher average hydraulic loading rates are appropriate in many wetland, lower average hydraulic loading rates are appropriate in certain wetlands

Therefore: consider establishing average hydraulic loading rates by wetland type

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.450 Discharge Limits **from** Treatment and Receiving Wetlands
 - ◆ Annual Average TN = 3 mg/l
 - ◆ Annual Average un-ionized ammonia = 0.02 mg/l
 - ◆ Annual Average TP = 0.2 mg/l
 - ◆ **Superseded by Numeric Nutrient Criteria**

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.500 Standards **within** Treatment and Receiving Wetlands
 - ◆ Exemption from certain general water quality standards; DO, nutrients, injury to plants, turbidity
 - ◆ Exemption from certain Class III water quality standards; DO, total coliform, biological integrity, transparency
 - Revised DO standard: Levels of dissolved oxygen including daily and seasonal fluctuations shall be maintained to prevent violations of the biological quality standards

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.500 Standards **within** Treatment and Receiving Wetlands
- ◆ Wetland Biological Quality

Research has demonstrated that the application of treated wastewater to wetlands does not reduce biological quality, therefore available indices to assess wetland functions should be used instead of these standards

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.650 Man-made Wetlands
 - ◆ Most of the provisions of the rule do not apply to man-made wetlands
 - ◆ Minimum (free-from) surface water quality standards do apply
 - ◆ General and Class III standards do not apply, except for metals
 - ◆ A wetland created for mitigation can not be used as a treatment wetland, but can be used as a receiving wetland

Chapter 62-611 FAC Wetlands Application

- ◆ 62-611.700 Monitoring Requirements
 - ◆ Unaltered treatment wetlands
 - ◆ Hydrologically altered or man-made treatment wetlands
 - ◆ Receiving wetlands
 - ◆ Length of baseline monitoring, specified parameters, frequency, number of stations
 - ◆ In general the numbers of parameters should be reduced as well as the monitoring frequency