

National Wetland Condition Assessment 2011: U.S. Environmental Protection Agency Report (May 2016)

Arkansas Environmental, Energy, and Water Law Blog



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The United States Environmental Protection Agency (Office of Wetlands, Oceans and Watersheds) ("EPA") issued a report titled *National Wetland Condition Assessment 2011* ("Assessment"). See EPA-843-R-15-005.

EPA describes the *Assessment* as containing the results of the first national evaluation of the ecological condition of the nation's wetlands.

The *Assessment* is stated to address some of the gaps in the nation's understanding of wetland health by providing information about the ecological condition of the nation's wetlands and stressors most commonly associated with poor condition.

The *Assessment* involved more than 50 field crews sampling 1,179 wetland sites across the country during the Spring and Summer of 2011. The crews used standardized field protocols to sample vegetation, soils, hydrology, algae, water chemistry and potential stressors at each site. The sites were selected using a random sampling technique.

Key national findings of the *Assessment* included:

- 48% of the wetland areas in good condition
- 20% were in fair condition
- Remaining 32% of the areas in poor condition

Of the four major ecoregion-based units reported on by the *Assessment*, the nation's west has the lowest percentage of wetland areas, 21%, in good condition. Coastal Plains, Eastern Mountains and Upper Midwest, and the interior plains have a range of 44% to 52% wetland areas in good condition.

The indicators of stress (physical, chemical and biological) were assessed. As to physical, the *Assessment* concludes that vegetation removal and hardening stressors are high for 27% of wetland area, while the ditching stressor is high for 23% of wetland area.

The two chemical indicators of stress for the *Assessment* using soil data collected at each site involved a Heavy Metal Index and soil phosphorous concentration. The *Assessment* concluded that stressor levels for both of these indicators are low for the majority of wetland nationally. It did note however that stressor levels for the Heavy Metal Index are moderate 47% of wetland area in the west and 31% of wetland area in the Eastern Mountains and Upper Midwest. Stressor levels for soil phosphorous are high for 13% of the wetland area in the Eastern Mountain and Upper Midwest.

The discussion of the biological indicator notes that a Nonnative Plant Stressor Indicator was developed for the *Assessment* used to assess the level of biological stress in wetlands. It concludes that nationally, 61% of wetland areas have low stressor levels for NonNative plants. However, these results are stated not to be uniform across the nation. The Eastern Mountains and Upper Midwest and the Coastal Plains have similar percentage of low stressor levels, 74% and 66% of wetland area, respectively for the Nonnative Plant Stressor Indicator. In contrast, the West Interior Plains have only 14% and 27% of wetland area respectively, with low stressor levels.

The *Assessment* includes a discussion of the implications of these findings.

A link to the *Assessment* can be found here: https://www.epa.gov/sites/production/files/2016-05/documents/nwca_2011_public_report_20160510.pdf