

ENFORCEMENT OF SECTIONS 301 AND 404 OF THE CLEAN WATER ACT: A REVIEW OF ENFORCEMENT ACTIONS PURSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IV

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REFERENCE: *Proceedings of the 1991 Georgia Water Resources Conference*, held March 19 and 20, 1991 at The University of Georgia. Kathryn J. Hatcher, Editor, Institute of Natural Resources, The University of Georgia, Athens, Georgia 1991.

INTRODUCTION

Section 301 of the Clean Water Act (CWA) makes a permit, issued pursuant to regulations promulgated under Section 404 of the CWA, a legal prerequisite to the discharge of dredged or fill material into water of the U.S. Should the discharge of dredged or fill material into waters of the U.S. occur without a 404 permit, Section 309(a)(3) of the CWA provides for the issuance of administrative orders or initiation of a civil action for such a violation. Administrative orders set forth the requirements for bringing a violation into compliance with Section 301, which may include such measures as complete restoration of the disturbed area and a schedule for compliance monitoring.

The U.S. Environmental Protection Agency (EPA), Region IV, has vigorously pursued enforcement of Section 301 for unauthorized discharges of dredged or fill material into waters of the U.S., including wetlands and stream systems. Numerous administrative actions have been taken in Georgia and Tennessee which have required partial or complete restoration of the disturbed wetlands and streams. The requirements for restoration and mitigation, as well as hydrologic and biological monitoring, have varied from site to site depending upon the type of perturbation involved and the site-specific hydrologic, vegetative and habitat recovery goals developed for each site.

As of December, 1990, EPA has pursued over 30 different enforcement actions in Tennessee and Georgia. These violations were detected by various means, including notification by private citizens and discovery during routine field reconnaissance by the U.S. Army Corps of Engineers (COE) and EPA. It is believed that the violations that are detected and actively investigated are a small percentage of the total number of unauthorized activities actually occurring. The following is a review of two recent actions taken by EPA in these states which typify the variability of violations and the degree of difficulty in restoring and mitigating different types of wetland and stream impacts.

STREAM RESTORATION AND WETLAND MITIGATION IN TENNESSEE

In the fall of 1990, the Tennessee Department of Transportation (TDOT) constructed a highway ramp in the floodplain of Town Creek, subsequent to the completion of which Spring City experienced exacerbated flooding from Town Creek. TDOT then initiated channel improvements in Town Creek, which consisted of the deepening and widening of the creek and the construction of concrete liners along the stream banks, with the footing extending below mean ordinary high water. Since this activity was conducted without authorization from the COE, it was done in violation of Section 301 of the CWA and thus, in April of 1990, EPA issued administrative orders to TDOT for the unauthorized channelization of Town Creek and the filling of 2 acres of adjacent wetlands incidental to the construction of a highway ramp in Spring City, Tennessee.

TDOT was ordered by EPA to restore the normal flow and habitat function of Town Creek and to offset the loss of the wetlands by restoration of an adjacent 2 acres of wetlands. Stream restoration consisted of the removal of the concrete liners, the placement of gabion-basket control structures planted with wetland tree species to enhance in-stream flow and habitat, and the grading of the south bank to an elevation suitable for the development of wetland conditions and to serve as a flood-flow channel. To provide immediate shading of the stream, six foot trees were planted in the gabion-basket structures. Wetland restoration consisted of the grading of the north floodplain to an elevation consistent with that of identified adjacent wetlands, and the reforestation of the entire area with 450 wetland trees per acre. Restoration of both the stream and the wetlands has been completed, and based on preliminary post-restoration site inspections, the channel stabilization and vegetative cover have been achieved.

Monitoring requirements to ensure that restoration of the stream and wetlands is successful include the following: vegetative monitoring; hydrologic monitoring;

and in-stream habitat recovery monitoring. Vegetative monitoring includes the measurement of the growth and density of the planted trees and any volunteer species on a quarterly basis until success (75% survival) is demonstrated for five consecutive years. Hydrologic monitoring includes the installation of 3 piezometers and one crest gage throughout the mitigation site and the monitoring of basic water quality parameters, such as temperature, dissolved oxygen, pH, conductivity and suspended solids, on a quarterly basis. In stream habitat recovery shall be assessed by sampling the benthic macroinvertebrates in the stream, using a quantitative method, and comparing the community diversity, density and abundance to an unimpaired upstream community. Monitoring of all parameters is to continue until it is demonstrated that success of the restoration and mitigation has been achieved.

WETLAND RESTORATION AND MITIGATION IN GEORGIA

In July of 1990, EPA issued an administrative order to a developer in Statesboro, Georgia for the unauthorized deposition of fill material into approximately 12 acres of cypress swamp incidental to the construction of a small lake, roadways, foundations, and several single family homes. The developer had been previously issued cease and desist orders from the COE for the same violation; however, work on the project did not stop as ordered, and EPA assumed the lead on the enforcement action. EPA has required the developer to remove all partially completed foundations, roadways, the lake and 2 completed houses from the wetlands. Subsequent to the removal of the fill material, the area must be restored to its original contours and replanted with native wetland vegetation, which is to include willow oak, sweet bay, red bay, cypress, black gum, green ash, and red maple. The developer has agreed to perform the requisite removal and is scheduled to commence restoration in January of 1991. The homes, which were rental properties and still in the possession of the developer, will not be removed until the occupants move out at the expiration of the current lease. In addition, to compensate for the fill remaining in the cypress swamp, the approximate 20 acres of unimpacted forested wetlands adjacent to the impacted area shall be left in a natural, undisturbed state in perpetuity by means of a deed restriction or conservation easement.

As with the TDOT site, vegetation, hydrology and habitat recovery are to be monitored at the restoration site in order to quantifiably demonstrate that wetland functions are being restored. Data collected during monitoring efforts shall be compared to similar parameters from an adjacent, undisturbed wetland reference site. In this instance, the cypress swamp that is adjacent to the restoration site is to be used for the

reference site. The data collected from the reference site shall be used to obtain baseline information and establish restoration success goals. In addition, the reference site shall be monitored at times that coincide with data collection at the impact site for comparative purposes and to determine success. Monitoring, evaluation and active restoration measures shall continue until it is demonstrated, by comparison to the reference site, that success has been achieved.

As evidenced by these two cases, the enforcement program at EPA has as its basic tenet, which is firmly grounded in the statutory and regulatory authority, that restoration of wetlands and streams which have been impacted without authorization from the COE will be sought whenever feasible. The integrity of the permitting process depends upon the vigorous enforcement of the CWA and its provisions, and deviation from restoration of violation sites is usually accepted only when an alternate remedy would clearly further the goals of the CWA more than restoration.