## Water Quality Update

## **EPA/State/Tribal Wetlands Workshop**

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A collection of state environmental agencies will be hosting an EPA/State/Tribal Wetlands workshop to be held on June 18-20, 1996, at the Doubletree Hotel in Tulsa, Oklahoma.

The purpose of the three day workshop is to announce the availability of FY 97 grant funds. The funds, according to a recent announcement, are targeted for development of State/Tribal Wetlands Protection Programs under Section 104(b)(3) of the Clean Water Act.

The workshop will feature field trips to a wetlands school yard, Tulsa Zoo, and Partners for Wildlife Park. John Kusler, of the Association of Wetlands Managers will be speaking about public meeting partnerships. Other items on the agenda include panel discussions on MOA/Mitigation bank and SWCP, and grants workplan/outreach seminar.

This promises to be an excellent opportunity for State and Tribal representatives to share what's happening with their Wetland projects funded through the grant program and to discuss technical wetland issues.

Deadline for registration is June 3, 1996; registration is set at \$30.00. (Note: hotel reservations must be made by May 29, 1996 to receive the group rate however).

For further information contact Carlene Ellison at (214) 665-6462.



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## **RESOURCE SPOTLIGHT**

Watershed Boundaries & digital elevation model of OK derived from 1:100,000-scale digital topographic maps

Authors: Joel R. Cederstrand and Alan Rea

Report #: USGS Open-File Report 95-727

This CD-ROM contains among other things, watershed boundaries for Oklahoma and a digital elevation model. The hydrologically conditioned digital elevation model with a 60-meter cell size, was produced using elevation data and streams from digital versions of the U.S. Geological Survey 1:100,000-scale topographic maps. The digital elevation model is well suited for drainage-basin delineation using an automated technique.

Additional data sets include flow-direction, flowaccumulation, and shaded-relief grids, all derived from the digital elevations model, and the hydrography.

Contact USGS to obtain your own copy.

If you need a copy of any articles, contact Hannah Barbara Fulton at (405) 744-5653

Michael D. Smolen, Water Quality Coordinator; Dept. of Biosystems and Agricultural Engineering 218 Ag Hall, Stillwater, OK 74078-6021 (405) 744-5653 or FAX (405) 744-6059 Editor: Anna Fallon, Asst. State Extension Specialist

## Netherlands a Pioneer in Manure Management

The Netherlands is pioneering methods to reduce environmental problems associated with animal wastes. The country has about 15 million people (versus about 5 million in Wisconsin) living in an area about a fourth the size of Wisconsin. They share the land with 4.7 million cattle, 13.4 million pigs, 44 million laying hens, 41 million broiler, and 1.7 million sheep.

Altogether, those animals produce three to four times more manure than is needed to fertilize the country. A 500-sow farm producing 20 piglets per sow each year produces the same effluent as a town of 25,000 people.

"They have what we have, only worse," said David Brubaker, of the PennAg Industries Association, who has studied and written about the Netherlands situation. "Almost all of the feed is imported. And they are producing these huge animal numbers, but the waste is left behind, so to speak."

Animal agriculture is critical to the nation's economy - the Dutch are the world's second largest exporters of agricultural products.

The Dutch have developed the most stringent manure regulations in the world as part of an effort to clean their heavily polluted rivers. The intent is to find new uses for manure, better ways to treat the wasters and new ways to reduce the overall amount of manure.

In the 1980's the Dutch embarked on an ambitious program to reduce pollution from manure. New regulations financially penalize polluters while rewarding innovators and farmers who find ways to marker manure abroad. One farm, for example, has developed pelletized poultry manure that is exported for sale as lawn fertilizer.

Increasingly, stringent regulations, over time, will also restrict allowable application rates for manure. The goal will be that no more phosphate is applied on land than is withdrawn from crops.

A new law, the Act on Manure and Fertilizer, requires farmers to keep track of the amount of manure produced and where it is going. A "Manure Board" was established to regulate manure flows, provide manure for use in arable areas, and help find new manure users. It also conducts research, assists in the processing of manure and establishes treatment plants. All farmers with a manure surplus must develop a disposal plan. Farmers who exceed permitted production levels face fines, and there is an escalating level of tax on commercial feed.

To help manage the wastes, manure factories are being established to treat and process excess manure; and there is an escalating level of tax on commercial feed.

To help manage the wastes, manure factories are being established to treat and process excess manure; the country's aim ins to be able to process 20 million tons by the turn of the century.

The goal is to balance ecological goals with economic needs, Brubaker said, but the challenge will be to make sure that Dutch meat and dairy products remain competitive in the European market. ●

*-Keeping Current*, (Univ. of WI Extension) March, 1996

