Harrods Creek TMDL Fact Sheet

Project Name:	Harrods Creek Dissolved Oxygen TMDL
Location:	Oldham and Jefferson Counties, Kentucky
Scope/Size:	River mile point 7.5 to mile point 0 of Harrods Creek which flows into the Ohio River. Due to downstream dams and locks in the Ohio River water in Harrods Creek will slow down or reverse (backwater).
TMDL Issues:	Point Source
Data Sources:	Ambient monitoring and 1990 water quality survey
Data Mechanism:	KY QUAL2E predictive modeling and in-stream monitoring
Control Measures:	KPDES Permits
Summary:	In 1990 KY DOW collected water quality data on Harrods Creek to examine D.O. from mile point (MP) 0 to MP 12. Of primary concern is the backwater area (MP 0 to MP 4.2) where a D.O. sag below the D.O. standard was measured for nearly 3 miles. Eight package plants in or near the backwater area contribute oxygen consuming constituents, BOD5 and ammonia, to Harrods Creek. Predictive model runs showed that if these 8 small plants are removed from lower Harrods Creek, D.O. will be maintained at the 5.0 mg/l standard. The model run and survey showed that the critical condition for D.O. is during high temperatures (summer) and low flow conditions. Also, a number of small package plants discharging above Sleepy Hollow Lake will be removed.
TMDL Development:	The TMDL strategy calls for elimination of the 8 package plants in the backwater area of Harrods Creek. Flows will be sent to a regional plant located on the Ohio River in another basin. Wastewater plants upstream from Sleepy Hollow Lake have also been recommended for removal. Flows from these plants will be rerouted to the Hite Creek regional plant. KY QUAL2E modeling predicts that the in-stream D.O. standard will be maintained at effluent limits of CBOD5 = 10 mg/l, NH3-N = 2 mg/l and D.O. = 7 mg/l for the Hite Creek plant and no discharge allowed from the other 8 backwater plants and the plants upstream from Sleepy Hollow Lake.

Implementation Controls:

The facility owners with plants in or near the backwater area of Harrods Creek have already been contacted and informed that their current NPDES permits will not be renewed. Existing permits will expire in mid-1998.

Monitoring of Harrods Creek is planned after removal of the dischargers. Based on that information it will be determined if additional point source or non-point source controls are needed.