



JOINT MANAGEMENT OF URBAN RUNOFF QUALITY
AND COMBINED SEWER OVERFLOWS

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SYNOPSIS

Wet weather pollution of receiving waters in urban areas is regulated in the US by the US Environmental Protection Agency (EPA) National Pollution Discharge Elimination Systems (NPDES) permit programme. Under this programme, two types of wet weather pollution are regulated:

- 1 Runoff from areas which is collected and discharged to receiving waters by a drainage system of pipes and/or channels that carry **only** storm water (USEPA 1989)
- 2 Discharges to receiving waters from combined sewer systems that convey both wastewater and storm water (USEPA 1994).

However, these permitting programmes are currently administered independently, with no consideration of receiving water impacts or the cost to the community of one programme versus another. The Rouge River Watershed in the Detroit, Michigan metropolitan area is a good example of the problems that are created by this independent permitting programme. About 33 % percent of the watershed is served by combined sewers ; the remainder of the watershed is served by separate storm drainage systems. It has been estimated that the cost to control combined sewer overflows (CSO) could run as much as \$ billion US dollars under the current NPDES requirements. Moreover, even if CSO's in the Rouge River Water are **completely eliminated**, the streams will still not meet receiving water quality standards for dissolved oxygen and faecal coliform.

The eventuality has lead the affected communities in the Rouge River Watershed to question whether the currently required level of CSO control is reasonable, or whether there are combinations of CSO controls and pollution abatement for runoff from the urban areas served by separate drainage systems wouldn't produce a better quality receiving water at a cheaper price. Assuming the initiative to investigate this alternative, Wayne County, Michigan wrote a grant proposal to the US Federal Government seeking funding to undertake the development of wet weather water quality management plan that would look at **all** sources of pollution and develop cost effective alternatives for restoring the river to the status of a viable community resource. The grant was funded by the federal government as a National Demonstration Programme with a goal 'to develop an approach to basinwide water quality management that will achieve national water ; quality goals and objectives during the following wet weather events in the Rouge River Basin'.

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