

COMBINED SEWER SYSTEM NOTICES

**House Bills 4045 and 4047 as enrolled
Public Acts 3 and 4 of 1998
Sponsor: Rep. William Callahan**

**House Committee: Conservation,
Environment and Recreation
Senate Committee: Natural Resources
and Environmental Affairs**

Third Analysis (2-13-98)

THE APPARENT PROBLEM:

The problem of combined sewer overflows (CSOs) poses a threat to the state's many bodies of fresh water, including the Great Lakes. Combined sewer systems are those that carry both municipal waste and storm water in a single conduit, or pipe, to a wastewater treatment facility. The pollution problem occurs frequently in areas of the state -- primarily large urban centers -- that lack sewer systems able to handle both storm water and wastewater safely. When heavy rain or melted snow fills these systems to capacity, the storm water "combines" with the sanitary sewage in the pipes, and, if the combined volumes of storm water and sanitary sewage exceed the capacity of the municipal treatment plant, the excess volume is diverted away from the plant and "overflows" untreated and is discharged into lakes and streams. Along with raw sewage, CSOs dump pesticides, fertilizers, oil and grease, and untreated toxic substances into Michigan waters. Michigan's environmental laws underwent revision in 1993 to provide funds to communities that needed to upgrade their combined sewer systems, and to allow villages to issue bonds for CSO abatement facilities. In addition, to protect the public health, municipalities in which CSOs occur were required to take steps to inform the state, the public, and affected communities of a discharge and to be responsible for necessary testing. Some problems with CSOs persist, however. Specifically, these problems involve proper notification of affected downstream areas by a municipality that is discharging untreated sewage from a combined sewer system; and discharges from downspouts into sanitary sewage systems.

Under the Natural Resources and Environmental Protection Act (NREPA), a municipality must notify the Department of Environmental Quality (DEQ), newspapers, and affected (downstream) municipalities, when it discharges untreated sewage from a combined

sewer system (CSS). Untreated sewage is sewage that has not received any treatment, such as screening to remove large objects, settling to remove particles that are heavier than water, skimming to remove floating scums and foams, being subjected to microbial processes to reduce the level of nutrients, or being disinfected to kill disease-causing organisms. Municipalities may, however, discharge sewage that is *partially* treated. That is, sewage that has been screened, settled, skimmed, and disinfected, but has not been subjected to microbial processing to reduce nutrient levels. High bacteria counts in recreational areas downstream from such systems have resulted in beaches, such as Metro Beach on Lake St. Clair, being closed for part of the summer season. Consequently, legislation providing stricter notification requirements from municipalities that discharge both untreated and partially treated sewage has been proposed. Also, in the past, downspouts leading from the eaves troughs of houses and other buildings were commonly connected to a building's sewer line, which discharged into the municipal sewer system. Since combined sewer systems are no longer constructed, this practice has ended except in communities where old combined systems are still in use. However, some have suggested that all such discharges be eliminated by a specific date.

THE CONTENT OF THE BILLS:

Under Part 31 of the Natural Resources and Environmental Protection Act (NREPA), which governs water resources protection, a municipality that discharges untreated sewage from a combined sewer system (CSS) must notify the Department of Environmental Quality (DEQ), newspapers, and affected (downstream) municipalities, and either pay for testing

or give test results to local health departments. House
Bill 4045

would amend Part 31 (MCL 324.3112a) to specify additional notification provisions. House Bill 4047 would add new sections to Part 31 of the NREPA (MCL 324.3112b), to prohibit discharges from gutters or roof downspouts into sanitary sewage systems. In addition, House Bill 4047 would define "combined sewer system," or CSS, to mean a sewer designed and used to convey both storm water runoff and sanitary sewage, and which contains lawfully installed regulators and control devices that allow for delivery of sanitary flow to treatment during dry weather periods and diverts storm water and sanitary sewage to surface waters during storm flow periods.

Notification and Testing of Discharges. Part 31 of the NREPA specifies that a municipality that discharges untreated sewage from a CSS into state waters must notify the DEQ of the circumstances of the discharge, and also local health departments and daily newspapers of general circulation in the counties in which the municipality -- and others whose waters may be affected -- are located. House Bill 4045 would specify, instead, that the accountable municipality would have to make the required notifications immediately, or at least within 24 hours after the discharge began, in situations involving sewage that hadn't received all the treatment that was available and utilized under ordinary dry weather conditions.

The act also specifies that a municipality or permittee that is responsible for discharging untreated sewage must conduct or pay the cost of testing to assess the risk to the public health, if requested to do so by a local health department. House Bill 4045 would specify, instead, that the permittee would have to test the affected waters for *E. Coli* each time a discharge of untreated sewage from a CSS occurred, and also provide the test results to the affected local county health departments. The testing would have to be done at locations specified by each affected local county health department, but could not exceed ten tests for each separate discharge event. However, in situations where the local county health department determined that such testing wasn't necessary to assess the public health risk of the discharge, the local county health department could waive this requirement.

Eaves Trough/CSS Connections. House Bill 4047 would specify that eaves troughs and roof downspouts that collected storm water throughout the tributary service area could not be directly connected to a CSS, and a permit would be issued or renewed conditional upon this provision. Permittees would be allowed up to one year to comply with this provision for residential property, and up to five years for commercial and industrial properties. However, these provisions would not apply if the permittee demonstrated to the department's satisfaction that the disconnection of downspouts and eaves troughs

wasn't a cost-effective means of reducing the frequency or duration of CSS overflows, or of maintaining compliance with discharge requirements.

FISCAL IMPLICATIONS:

House Bill 4045 would require the Department of Environmental Quality (DEQ) to monitor combined sewer overflows (CSOs). The House Fiscal Agency (HFA) estimates that the bill would have no fiscal impact on the state. Instead, \$100,000 would be diverted from existing water quality monitoring activities. The HFA estimates that House Bill 4047 would also result in indeterminate costs, since the DEQ would have to revise its current permitting system to comply with the bill's requirement that all permits for discharges from CSSs be reissued. (1-21-98)

ARGUMENTS:

For:

While the environmental hazards of pollution from specific sources, such as factories, have long been widely recognized, the problems presented by diffuse sources ("nonpoint" sources) have only recently come under scrutiny. Nonpoint sources such as agricultural runoff and storm sewers have taken on an increased significance partly because of improved regulation of industrial discharges and municipal sewage plants, but also because of advances in research that have led to a better understanding of the contaminants and volumes of urban and rural runoffs. In response to concerns about storm water runoffs, 1987 amendments to the federal Clean Water Act included provisions that specifically addressed storm water discharges. Under those amendments and subsequent federal rules, states to whom enforcement has been delegated under the National Pollutant Discharge Elimination System program and the Clean Water Act must have storm water discharge permit programs meeting certain criteria. As a result, the Department of Environmental Quality is authorized, under Part 31 of the Natural Resources and Environmental Protection Act (NREPA), which governs water resources protection, to collect storm water discharge fees from persons who apply for permits. Currently, however, municipalities may discharge sewage after wet weather triggers a combined sewer overflow (CSO). This occurs in times of high rainfall, when systems become overloaded and discharge untreated or partially treated storm and sanitary sewage directly into a lake or other receiving body. CSOs not only threaten water quality, but also affect fish, wildlife habitat, human health, and property values. Many communities lose tourist revenues when beaches are closed, and they maintain that those responsible for CSOs should take responsibility for such

situations. Under the bills, the DEQ and the public would be notified

within 24 hours if untreated or partially treated sewage were discharged into local streams or lakes, and a \$10,000 award would be offered for evidence that untreated waters were being illegally discharged into a lake. In addition, the DEQ would be required to establish a database for a centralized reporting system, so that the impact of such discharges and the risk to the public health could be assessed.

Response:

The bills would, generally, result in increased costs to the DEQ, and would cause existing staff to be reassigned from other monitoring departments. In any case, many people maintain that the problems associated with CSOs are being adequately addressed by communities now. The Detroit Water and Sewerage Department (DWSD), for example, which operates the largest publicly owned water treatment works in the state, utilizes a combined sewer system to transport flows to its wastewater treatment plant. During heavy rainfalls, when the capacity of the sewer system is exceeded, a dilute mixture of sanitary wastewater and storm water runoff may be discharged at 78 CSO sites on the Detroit and Rouge rivers. However, the DWSD is currently putting into place, at a cost of more than \$1 billion, a long-term CSO control plan that would entail treatment and disinfection of combined sewage. While developing this plan, the city has studied its sewer system, and has concluded that its overflows have no adverse impact on a recreation area downstream. Under the provisions of House Bill 4045, however, the city would have to monitor overflows that extend over a large geographic area. In fact, according to the DWSD, most of the affected portions of the Detroit River that would have to be monitored are inaccessible, except by boat.

For:

House Bill 4047 would require that eaves troughs and roof downspouts that collect storm water be disconnected from combined sewer systems. Currently, every community with combined sewer overflow problems is required by the DEQ to study its system and implement cost-effective CSO abatement measures. Many communities have decided that downspout disconnection is a cost-effective abatement measure, since it usually reduces the volume of storm water entering the system by redirecting it onto a lawn or other unpaved surface. The water then seeps into the soil.

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■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.