NPDES Phase II
Compliance &
Illicit Discharge
Ordinances

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Land Use Clinic
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I. Introduction

Under the Clean Water Act’s NPDES Phase II regulations, small municipalities must implement an illicit discharge detection and elimination program. Such a program usually includes an illicit discharge ordinance. This paper addresses the issue of whether illicit discharge ordinances are the best solution for solving the problem of harmful stormwater discharges and argues that such ordinances are the best available solution.

A. Definitions

A municipal separate storm sewer system (MS4) is a system of conveyances (e.g. sidewalks, roads with drainage systems, municipal streets, curbs, gutters, ditches, man-made channels, and storm drains) owned and operated by the local government and designed or used for collecting or conveying stormwater (not used for collecting or conveying sewage). An illicit discharge is defined as any discharge into the MS4 which is not composed entirely of stormwater (excluding discharges allowed under a NPDES permit). Illicit discharges can be intentional or unintentional, and can be caused by direct connections or indirect connections. Examples of direct connections are pipes connected to a storm drain. For example, if a business has floor drains connected to the stormwater drainage system, those drains are an improper direct connection (such drains should instead connect to the sanitary sewer system). Direct connections also include illegal dumping into the storm drain system (e.g. a person disposing of motor oil by intentionally dumping it into a storm drain). According to the Center for Watershed Protection, studies have shown that a surprisingly large percentage of businesses have illicit connections (e.g. a 1988 study in Washtenaw County, Michigan found that 60% of automobile-related business had illicit connections).

Examples of indirect connections include failing or cracked septic systems, accidental spills that enter storm drains (e.g. spilled paint or motor oil), lawn clippings and leaves that enter storm drains, or washing a car on a paved surface which results in the wash water entering a storm drain. These indirect connections may be unintentional or accidental.

1 Permit Application and Special NPDES Program Requirements, 40 C.F.R. § 122.34 (b)(3) (2005).
3 Id.
4 Id.
8 Id. at 8-9.
9 Id. at 24.
B. Harms Caused by Illicit Discharges
The primary harm associated with illicit discharges is that they cause serious water quality problems. One court has noted that “[s]torm water runoff is one of the most significant sources of water pollution in the nation, at times ‘comparable to, if not greater than, contamination from industrial and sewage sources.’” Illicit discharges are the main route by which this contaminated stormwater reaches bodies of water. For example, an EPA study conducted in Sacramento, California “found that almost half of the water in the storm drains was not directly attributable to rainfall,” and that the additional water was the result of illicit discharges.

Typical pollutants associated with illicit discharge include drainage from septic systems, sewage, automobile fluids, grease, household hazardous wastes, chlorinated water from swimming pools, pesticides, and industrial or commercial chemicals. Each of these different pollutants can have harmful effects on the environment (varying in severity). According to the Center for Watershed Protection, when polluted bodies of water can no longer be used for drinking water, for fishing, or for recreation, there will be corresponding negative impacts on public health, on wildlife, on tourism, and on waterfront home values. These serious problems could be avoided in part through the prevention of illicit discharges.

C. Illicit Discharge Ordinances
The major components of an illicit discharge ordinance are purposes, definitions, prohibitions, regulation of discharges, enforcement, and penalties. Purposes include protecting the public health and safety, protecting the environment and general welfare of the citizens, and reducing the pollution and degradation of nearby waters. The objectives of an illicit discharge ordinance should include regulating pollution into the MS4, prohibiting illicit discharges and illegal connections to the stormwater system, preventing non-stormwater discharges caused by spills or improper dumping, and establishing the legal authority to conduct inspections, surveillance, monitoring, and enforcement of the ordinance.

For an ordinance to be effective, it must contain two basic prohibitions: a prohibition of illicit discharges and a prohibition of illegal connections. The following is an example of a prohibition against illicit discharges.

No person shall throw, drain, or otherwise discharge, cause, or allow others under its control to throw, drain, or otherwise discharge into the (municipal/county) separate storm sewer system any pollutants or waters containing any pollutants, other than stormwater.

There are several common exceptions to this prohibition.

10 Environmental Def. Ctr., Inc. v. E.P.A., 344 F.3d 832, 840 (9th Cir. 2003), (quoting Richard G. Cohn-Lee and Diane M. Cameron, “Urban Stormwater Run-off Contamination of the Chesapeake Bay: Sources and Mitigation,” 14 The Env’tl Prof’l 10, 10 (1992)).
16 Metro Model Ordinance, supra note 2, at § 1.1.
17 Id.
18 Id. at § 3.1 (See also Stormwater Model Ordinance, supra note 5, at §7).
19 Id. (Noting that exceptions allow for water line flushing performed by a government agency, discharges of any water source that does not contain pollutants, discharges or flows from fire fighting, discharges specified in writing by the local enforcement authority as being necessary to protect
The prohibition of illegal connections applies to all illegal connections to the storm drain system, even ones made in the past. Legal connections must either be disconnected or redirected to an approved waste water management system. The ordinance may also require a property owner (upon written notice from the enforcement agency) to locate any drain or conveyance on his/her property and identify where the conveyance connects to and discharges to.

The enforcement agency should be authorized to terminate a person’s or a facility’s MS4 access in order to prevent any illicit discharge, as long as the agency gives proper notice. Additionally, if the enforcement agency considers the illicit discharge to be a substantial threat to the environment or to human health, the agency should be authorized to suspend the person’s or facility’s MS4 access without having to provide notice.

The ordinance should also have a Notification of Accidental Discharges and Spills section. This section requires persons who are responsible for a facility and who know or suspect that an illicit discharge has occurred (or will occur) to notify the local enforcement agency within 24 hours. The person responsible for the facility should be required to take “all necessary steps to ensure the discovery, containment, and cleanup of such release so as to minimize the effects of the discharge.” If the discharge contains hazardous materials, the proper agencies must be notified immediately.

Penalties for violations may include charging the violator for the costs of abatement, civil penalties (e.g. fines of up to $1,000 for each day the violation remains unremedied), and criminal penalties for “intentional and flagrant violations.” Violations should also be deemed a public nuisance.

II. Background of the Phase II Rule

In 1977, Congress amended the Federal Water Pollution Control Act of 1972. As amended, this act has become known as the Clean Water Act (CWA). The CWA established the basic structure for regulating the discharges of pollutants into the waters of the United States. Section 402 of the CWA created the National Pollutant Discharge Elimination System (NPDES). This system requires all dischargers to procure a permit from the Environmental Protection Agency (EPA) or from an authorized state.

In 1987, Congress added § 402(p) to the CWA. Section 402(p) created a two-phase approach to regulating stormwater discharges. Phase I required all “industrial activities” to obtain NPDES permits for stormwater discharges. In 1999, the EPA issued the Phase II regulations, which regulate discharges from 1- to 5-acre construction sites, smaller MS4s, and other sources on a case-by-case basis.

28 Id. at §§ 7.5, 7.6, 7.7.
29 Id. at § 7.8; Stormwater Model Ordinance, supra note 5, at § 20.
31 Id.; Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 et seq. [hereinafter “CWA”].
32 CWA, supra note 32, at § 1311(a) (prohibiting “the discharge of any pollutant by any person” unless in compliance with the provisions of §§ 1312, 1316, 1317, 1328, 1342, and 1344 of the CWA).
33 33 U.S.C. § 1342 [hereinafter “§ 402”].
34 Id. at (a)(1), (b).
35 Texas Indep. Producers and Royalty Ass’n v. EPA, 410 F.3d 964, 967-68 (5th Cir. 2005) (explaining the history of the CWA and NPDES).
36 Id at 968 (citing § 402, supra note 33, at (p)).
37 § 402, supra note 33, at (p)(3)(A); NPDES – Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47990, 48033, 48064 (Nov. 16, 1990) (defining “industrial activities to include “construction activities” and “large municipal separate storm sewer systems”).
38 § 122.26, supra note 2, at (d)(2)(i)(B) (requiring, as part of the permit application process, that the municipality “[p]rohibit
The EPA requires smaller municipalities to implement six minimum control measures in order to be in compliance with the Phase II Rule.\textsuperscript{39} One control measure requires operators of small MS4s to “develop and implement an illicit discharge detection and elimination program” (IDDE).\textsuperscript{40} The minimum requirements of an IDDE program include a requirement that the operator of a small MS4 prohibit non-stormwater discharges into the MS4 “[t]hrough an ordinance, or other regulatory mechanism.”\textsuperscript{41} Thus, in order to be in compliance with Phase II requirements, many small municipalities have developed illicit discharge ordinances. Therefore, the question arises of whether illicit discharge ordinances are the best solution for solving the problem of harmful discharges.

A. Legal Challenges to the Phase II Regulations

First, it is important to note that there have been several legal challenges to the Phase II regulations. An important case is \textit{Environmental Defense Center, Inc v. U.S. Environmental Protection Agency}, 344 F.3d 832 (9th Cir. 2005), which was a consolidation of suits brought by the Texas Cities Coalition on Stormwater, the Environmental Defense Center, the National Resources Defense Council, and the American Forest & Paper Association.\textsuperscript{42} In total, the petitioners and intervener challenged “the Phase II Rule on twenty-two constitutional, statutory, and procedural grounds.”\textsuperscript{43} The court remanded four aspects of the rule, and affirmed the rule against the other eighteen claims.\textsuperscript{44}

The main argument of the Texas Cities Coalition was that the Phase II Rule, by requiring small MS4 operators to regulate discharges, violated the Tenth Amendment.\textsuperscript{45} The court rejected this argument, finding that the Phase II Rule encourages, but does not compel, states to implement the federal program.\textsuperscript{46} The court noted that as long as there is a constitutionally permissible alternative to implementing the federal program, “the fact that the alternative is difficult, expensive, or otherwise unappealing is insufficient to establish a Tenth Amendment violation.”\textsuperscript{47} The court noted that instead of implementing the Phase II requirements, a city may obtain a permit “under the Phase I Rule as described in 40 C.F.R. § 122.26(d).”\textsuperscript{48} The court stressed that §122.26(d) merely lists the requirements for an application for a discharge permit, but “not the requirements of the permit itself.”\textsuperscript{49} Therefore, the court reasoned, § 122.26(d) does not require a municipality to implement any federal program, “because nothing in § 122.26(d) specifies the contents of the permit that will result from the application process.”\textsuperscript{50} Therefore, municipalities are not being “compelled” to implement a federal program. Texas Cities Coalition appealed the ruling; the United States Supreme Court, however, denied certiorari.\textsuperscript{51}

\textsuperscript{39} Id. at 840.
\textsuperscript{40} Id.
\textsuperscript{41} Id. at 846 (citing \textit{New York v. U.S.}, 505 U.S. 144, 145 (1992) (holding that because the Low-Level Radioactive Waste Policy Act’s “take title” provision “offers the States a ‘choice’ between the two unconstitutionally coercive alternatives – either accepting ownership of waste or regulating according to Congress’ instructions – the provision lies outside Congress’ enumerated powers and is inconsistent with the Tenth Amendment”).
\textsuperscript{43} Id. (quoting \textit{City of Abilene v. E.P.A.}, 325 F.3d 657, 662 (5th Cir. 2003)).
\textsuperscript{44} Id. at 848 (citing \textit{Printz v. U.S.}, 521 U.S. 898, 925 (1997); \textit{Reno v. Condon}, 528 U.S. 141, 151 (2000); \textit{South Dakota v. Dole}, 483 U.S. 203, 205-08 (1987)).
\textsuperscript{45} Id. (citing § 122.26, supra note 2, at (d)).
\textsuperscript{46} Id. (quoting \textit{City of Abilene v. E.P.A.}, 325 F.3d 657, 662 (5th Cir. 2003)).
\textsuperscript{47} Id. (citing § 122.26, supra note 2, at (d)).
\textsuperscript{48} Id.
\textsuperscript{49} Id.
\textsuperscript{50} Id.
The 9th Circuit remanded on the Environmental Defense Center’s claim that § 402(p) requires that permits may not be issued without requiring “controls to reduce the discharge of pollutants to the maximum extent practicable.” The court noted that under the Phase II Rule, “dischargers may apply for an individualized permit with the relevant permitting authority, or may file a ‘Notice of Intent’ (‘NOI’) to seek coverage under a ‘general permit.’” The court noted that because “the NOI represents no more than a formal acceptance of terms elaborated elsewhere, [the] EPA’s approach does not require that permitting authorities review an NOI before the party who submitted the NOI is allowed to discharge.” The court found that this system failed to meet the requirements of §40(p), because under the Phase II Rule “the operator of a small MS4 has complied with the requirement of reducing discharges to the ‘maximum extent possible’ when it implements its storm water management program, i.e. when it implements its Minimum Measures.” The court held that instituting minimum measures could not be construed as reducing discharges “to the maximum extent practicable,” as required by the CWA. Therefore, the court remanded this aspect of the rule.

The court also held that the NOIs “contain the substantive information about how the operator of a small MS4 will reduce discharges to the maximum extent practicable.” Based upon this, the court reasoned that NOIs are “functionally equivalent to the permit applications Congress envisioned when it created the [CWA’s] public availability and public hearing requirements.” Therefore, the court remanded regarding the EPA’s failure to require “express public participation in the NPDES permitting process.”

### III. Problem Identification

#### A. Enforcement

One concern is how effective ordinances can be at stopping illicit discharges. There must be a local enforcement agency duly authorized to administer, implement, and enforce the ordinance. To be effective, the local enforcement agency needs the authority to require that dischargers give proof of compliance with all provisions of their NPDES permit. Access and inspection is another necessary part of the enforcement power. According to some recent studies, up to 0% of industrial sites that are required to have an NPDES stormwater permit simply do not have one. Thus, it appears that inspections are crucial to achieving compliance with the ordinance. Although there may be problems with ordinance enforcement, there does not appear to be another solution to the problem. For example, although the Phase II Rule allows for contracts instead of ordinances, the author found no municipalities that have chosen to take that route.

#### B. Cost

Another issue of concern is the cost of implementing ordinances and other Phase II requirements. The National Association of Counties (NACo) estimates that larger municipalities’ average cost of compliance with Phase I is $600,000. NACo argues that Phase II compliance will cost even more, and that

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52 Id. at 852 (citing § 402, supra note 33, at (p)(3)(B)(iii)).
53 Environmental Def. Ctr., Inc. v. E.P.A., supra note 10, at 853 (citing 40 C.F.R. § 122.33 (b)) (explaining that “each general permit identifies the output limitations and technology-based requirements necessary to adequately protect water quality from a class of dischargers. Those dischargers may then acquire permission to discharge under the [CWA] by filing NOIs, which embody each discharger’s agreement to abide by the terms of the general permit.”).
54 Id.
55 Id. at 855 (citing 40 C.F.R. §122.34(a), 64 Fed. Reg., supra note 41, at 68753).
56 Id.
57 Id. 856.
58 Id. at 857.
59 Id.
60 Id. at 879 (But see Texas Indep. Producers and Royalty Owners Ass’n v. E.P.A., 410 F.3d 964, 977-78 (7th Cir. 2005) (holding that the CWA does not require the public availability of the NOIs or the opportunity for a public hearing on the NOI, based upon the court’s finding that Congress had not spoken directly to the precise issue and that “the EPA’s interpretation of the terms “permit application” and “permit” as not including NOIs… is a permissible construction.”)).
61 Id.
62 Guidance Manual, supra note 7, at 42.
63 Id. at 83.
64 Wall, supra note 12.
compliance will place a greater burden on the smaller municipalities. Maintaining water quality is expensive, and some communities complain that they spend a great deal of money but do not gain proportionate benefits. Additionally, residents may be resistant to paying more in taxes or fees. For example, many jurisdictions create a stormwater utility which will charge resident property owners a fee (stormwater utilities or district fees are generally considered the “best dedicated financing methods”). In 2004, Athens-Clarke County, Georgia (ACC) created a utility fee to fund stormwater management in the county. The ACC stormwater utility estimates that the average single family homeowner will pay $42 per year. According to the 2000 census, 42% of the 39,706 housing units in ACC are owner-occupied. Based upon those statistics, and assuming a $42 fee per year, ACC homeowners would pay $700,413.84 per year in stormwater utility fees. The collected fees will pay for services that are important to reducing illicit discharges (e.g. drainage improvements, drainage facilities maintenance, and monitoring stormwater quality).

Some have criticized the Phase II Rule, calling it an “unfunded mandate” and arguing that the costs of the program will cause other pollution control programs to suffer. The EPA, however, argues that the Phase II Rule is not an unfunded mandate, since the agency has met the procedural requirements of the Unfunded Mandate Reform Act and has “determined that the rule will have minimal impacts on the economy or employment.” The EPA believes that the rule will have minimal impacts on the economy because the rule only regulates small MS4s and construction sites under 5 acres, not industrial plants or other activities “that could directly impact production.” Also, the EPA believes that any increased construction costs will simply be passed on to buyers, “thus not seriously affecting the housing industry directly.” The EPA estimates nationwide compliance with the Phase II Rule will cost “from $847.6 million to $981.3 million annually” and estimates “monetized annual benefits” from increased water quality of $671.5 million to $1.628 billion (these figures are based in part on estimates of what people would be willing to pay for varying levels of water quality improvement).

The benefit of a successful IDDE program is that it can greatly reduce water pollution. For example, Wayne County, Michigan’s IDDE program involved training Wayne County and other county workers in identifying and reporting illicit discharges. Based upon this training, the counties’ workers identified over 150 illicit discharges in Wayne County and in nearby counties, preventing “an estimated 3.5 million gallons of polluted water from reaching Michigan surface waters each year.” Of course, in order to remedy those illicit discharges, the counties needed the legal authority to do so (which is based upon an illicit discharge ordinance).

65 Id.
66 Harrop, supra note 41, at 803.
71 (0.42 * 39,706 * 42 = 700,413.84).
73 64 Fed. Reg 68722, supra note 12, at 68797.
74 Id. at 68796-97 (citing Title II of the Unfunded Mandates Reform Act of 1995, 2 U.S.C. §§ 1501 et. seq.)
75 Id.
76 Id.
77 Id. at 68791-93.
78 Guidance Manual, supra note 7, at 85.
79 Id.
IV. Proposal

Some suggest that instead of requiring local jurisdictions to implement their own IDDE programs, it would be more effective to have state or nationwide educational programs for stopping illicit discharges. Such programs would be able to set minimum standards that municipalities would have to meet. Stacy Harrop argues that there should be “minimum performance standards for MS4s” and that a lack of such minimum standards may impede any progress toward better water quality. In response to such arguments, the EPA has cited the need for flexibility as a reason for not imposing minimum standards. However, the lack of clear minimum standards may make it difficult to determine whether a particular program is being implemented properly and whether the program is actually improving water quality. Harrop also argues that not having minimum measurable standards may lead to less “comprehensive water quality data.” She notes that “[t]he history of the CWA is littered with instances of state and EPA nonenforcement of state water quality standards, resulting in citizens filing lawsuits to compel compliance.” Without comprehensive data, it could be much harder, if not impossible, for a citizen to successfully bring a lawsuit that enforces compliance with the CWA.

On the other hand, there are those who argue that local communities know what is best for their own community. “By allowing communities to work on locally important issues and create their own solutions in a cooperative fashion... effective solutions will be achieved in a cost effective manner which are not mandates from the regulator and which may have no application for the resource within that stretch of the watershed.” Many local governments find that maintaining local control is very important, for local governments must meet the requirements of the Phase II Rule and at the same time still be able to encourage local economic development.

It seems possible to reach a middle ground between these two proposals, one that allows local government to have control and flexibility, but that also requires some minimum standards to be met. It will be interesting the see what changes the EPA makes to the Phase II Rule in response to the 9th Circuit’s decision in the Environmental Defense Center case discussed above.

V. Conclusion

There has been controversy over and objections to the NPDES Phase II requirements. However, even most critics recognize that cities and counties need to reduce the amount of pollution in stormwater runoff, because the harms of continuing unchecked water pollution are so serious. In pursuing the goal of eliminating illicit discharges, ordinances appear to be the best way to deal with this type of pollution. A local community can draft an ordinance that will work best for the local jurisdiction. However, it is important to emphasize that ordinances become much more effective as more and more communities pass such ordinances. As Harrop has noted, “A successful storm water program... requires participation in planning and decision making by all affected communities, particularly because nearby unregulated MS4s affect regulated MS4s’ ability to attain water quality standards.” Thus, as more and more communities come into compliance with the Phase II Rule, national water quality should improve greatly.

80 Harrop, supra note 41, at 804.
81 Environmental Def. Ctr., Inc. v. E.P.A., supra note 10, at 856-57.
83 Id. at 806.
84 Id. at 806-7 & note 294 (citing Michael P. Healy, “Still Dirty After Twenty-Five Years: Water Quality Enforcement and the Availability of Citizen Suits,” 42 Ecology L.Q. 393, 396 (1997)).
85 Id. at 807.
87 Id. at 1145.
88 Harrop, supra note 41, at 805.