

Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Final Rule



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List of Acronyms

The table below lists the acronyms used throughout this document.

List of Acronyms	
Acronym	Acronym Meaning
ACWA	Association of Clean Water Administrators
AFS	Air Facility System
ANCR	Annual Non-Compliance Report
BLS	Bureau of Labor Statistics
CAFO	Concentrated Animal Feeding Operation
CAMDBS	Clean Air Markets Division Business System
CDX	Central Data Exchange
CFR	Code of Federal Regulations
CGP	Construction General Permit
CIU	Categorical Industrial User
CROMERR	Cross Media Electronic Reporting Rule
CSO	Combined Sewer Overflow
CSS	Combined Sewer System
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EA	Economic Analysis
eDMR	Electronic Discharge Monitoring Report
ECHO	Enforcement & Compliance History Online
ECOS	Environmental Council of States
EDSC	Environmental Data Standards Council
eGRID	Emission & Generation Resource Integrated Database
EIA	Energy Information Administration
ENLC	Exchange Network Leadership Council
eNOI	Electronic Notice of Intent
EO	Executive Order
EPA	U.S. Environmental Protection Agency
eProgram Report	Electronic Program Report
EQ	Exceptional Quality
ESA	Electronic Signature Agreement
FERC	Federal Energy Regulatory Commission
FR	Federal Register
FRS	Facility Registry System
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GPRA	Government Performance and Results Act
HQ	Headquarters
ICIS	Integrated Compliance Information System
ICIS-NPDES	Integrated Compliance Information System-National Pollutant Discharge Elimination System
ICR	Information Collection Request
IDEA	Integrated Data for Enforcement Analysis
IPI	Industrial Production Index
IPT	Integrated Project Team
IT	Information Technology
IU	Industrial Users
LEW	Low Erosivity Waiver and Other Waivers from Stormwater Controls
MGD	Million Gallons per Day
MGP	Multi-Sector General Permit
MOA	Memorandum of Agreement
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
MSW	Municipal Solid Waste
NAICS	North American Industry Classification System
NASS	National Agricultural Statistical Service
NEC	No Exposure Certification
NeT	NPDES e-Reporting Tool

List of Acronyms	
Acronym	Acronym Meaning
NetDMR	Net-based Discharge Monitoring Report
NMP	Nutrient Management Plan
NODI	No Data Indicators
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTTAA	National Technology Transfer Advancement Act
OECA	EPA's Office of Enforcement and Compliance Assurance
OEI	EPA's Office of Environmental Information
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OTIS	Online Tracking and Information System
OW	EPA's Office of Water
PART	Program Assessment Rating Tool
PBMS	Performance Based Measurement System
PCS	Permit Compliance System
PMI	Program Management Information
POTW	Publicly Owned Treatment Works
PPI	Producer Price Index
PRA	Paperwork Reduction Act
QNCR	Quarterly Non-Compliance Report
RFA	Regulatory Flexibility Act
RIDE	Requisite ICIS-NPDES Data Elements
RNC	Reportable Noncompliance (according to EPA Policy and Guidance)
SASS	Semi-Annual Statistical Summary
SBA	Small Business Administration
SBREFA	Small Business Regulatory Enforcement Fairness Act
SEV	Single Event Violation
SIC	Standard Industrial Classification
SIU	Significant Industrial User
SNC	Significant Noncompliance (according to EPA Policy and Guidance)
SSCS	Sanitary Sewer Collection System
SSO	Sanitary Sewer Overflow
SSS	Sanitary Sewer System
SUSB	Statistics of U.S. Businesses
SWM	Storm Water Management
TWTDS	Treatment Works Treating Domestic Sewage
UMRA	Unfunded Mandates Reform Act
USC	United States Code
USDA	United States Department of Agriculture
WENDB	Water Enforcement National Data Base
WGS	World Geodetic System
XML	eXtensible Markup Language

Executive Summary

ES.1 Purpose of the Rule

The NPDES Electronic Reporting Rule will substitute electronic reporting for existing paper-based reports, saving time and resources for regulated entities and states, while improving compliance and better protecting the nation's waters. The rule will require regulated entities and state and federal regulators to electronically report data currently required by the NPDES permit program in lieu of filing written paper reports.

The rule will require NPDES regulated entities to begin submitting certain data electronically one year after effective date of the rule, and will require authorized NPDES programs (states or EPA regions) to share with EPA the information either that is reported to the authorized program or that they generate with respect to those regulated entities.

The rule will reduce the reporting burden currently borne by the states, improve overall facility compliance, allow better allocation and use of limited compliance and enforcement resources, and enhance transparency and public accountability by providing the public with timely information on potential sources of water pollution. When the final rule is fully implemented it will result in significant cost savings for regulated entities, states, territories, tribes, and EPA and more complete data could contribute to improved water quality.

This Economic Analysis (EA) quantifies the costs and savings of this final rule, while acknowledging many of the qualitative benefits that will result from its implementation. This rule justifies itself on the basis of the savings/costs alone.

Historically, EPA and authorized states have focused on the largest or "major" facilities as a way of prioritizing resources for permitting, enforcement, and data reporting to EPA. For example, EPA's data sharing policy has specified that authorized NPDES programs enter certain data for major facilities electronically, but only encouraged this practice for nonmajors. Over time, there has been a growing recognition of the significance of the impacts that other sources can have on water quality. Stormwater discharges, concentrated animal feeding operations, mines, and raw sanitary sewage overflows are all significant contributors to water quality impairment but are not currently considered "major" facilities under the NPDES program.



Examples of NPDES Program Reports Submitted on Paper

The rule improves data quality and availability for these significant sources, thereby providing the states and EPA with more complete and comparable data on a substantial majority of NPDES regulated entities, and allowing targeted actions to address the biggest water quality problems.

ES.2 Savings, Costs, and Benefits

EPA estimates that the rule will save money for states, tribes, and territories authorized to administer the NPDES program as well as EPA and most NPDES permittees, while resulting in a more complete, accurate, and nationally-consistent set of data about the NPDES program. With full implementation (expected to be five years after the effective date of the rule), the anticipated annual net savings for authorized NPDES programs¹ is \$22.6 million, \$0.5 million for regulated entities, and \$1.2 million for EPA.²

The State of Ohio's electronic reporting program for Discharge Monitoring Reports (DMRs) demonstrates the potential benefits of electronic reporting. Ohio's program resulted in a 99.9% adoption rate by regulated entities, with the following benefits:

- Improved data quality: errors dropped from 50,000 per month prior to electronic reporting to 5,000 per month afterwards.
- Significant savings in time and resources: prior to electronic reporting, Ohio needed five full time staff to support the DMR program. With electronic reporting, Ohio reduced DMR staffing to less than one full time staff member.

Improved data quality also allows Ohio to more accurately target areas of pollution, facilitating the State's enforcement and compliance efforts.³ Under the rule, states with existing successful electronic reporting programs like Ohio's would expand these programs to include additional data, if needed, potentially increasing these benefits.

Savings and Costs - Significant savings are anticipated once the final rule is fully implemented. There will, however, be initial investment costs associated with necessary changes to information technology and infrastructure. During the first 10 years after the rule is finalized, it is expected to generate a net savings of roughly \$156 million at a 3% discount rate, or \$114 million at a 7% discount rate. Break-even should be achieved – i.e., cumulative savings will equal cumulative costs – in the fourth year of electronic reporting (See Figure ES-1 and Figure ES -2).

¹ See Sections 1.2.1 and 1.3.1 for further explanation of NPDES program authorization.

² The stated savings numbers are discounted at 3%, which are first realized in full, five years after the effective date of the rule. Non-discounted values are \$26.2 million for authorized NPDES programs, \$0.6 million for regulated entities, and \$1.4 million for EPA.

³ See DCN 0011.

Figure ES-1: Electronic Reporting Costs/Savings Analysis – 3% Discount Rate

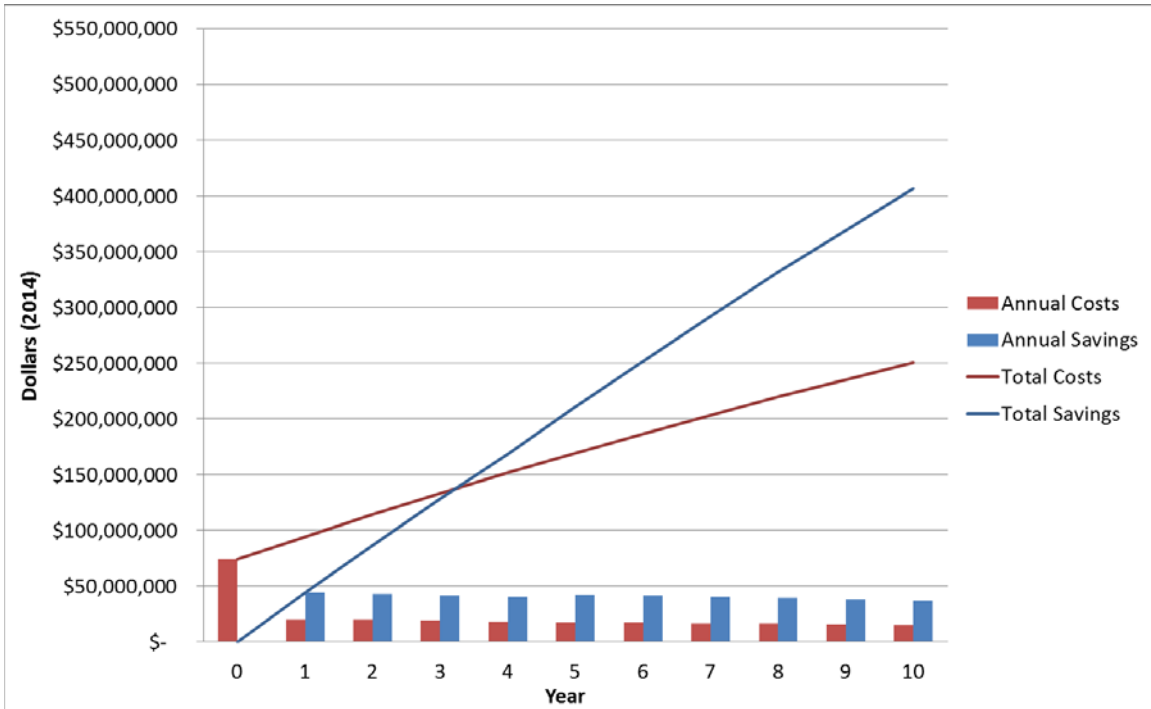
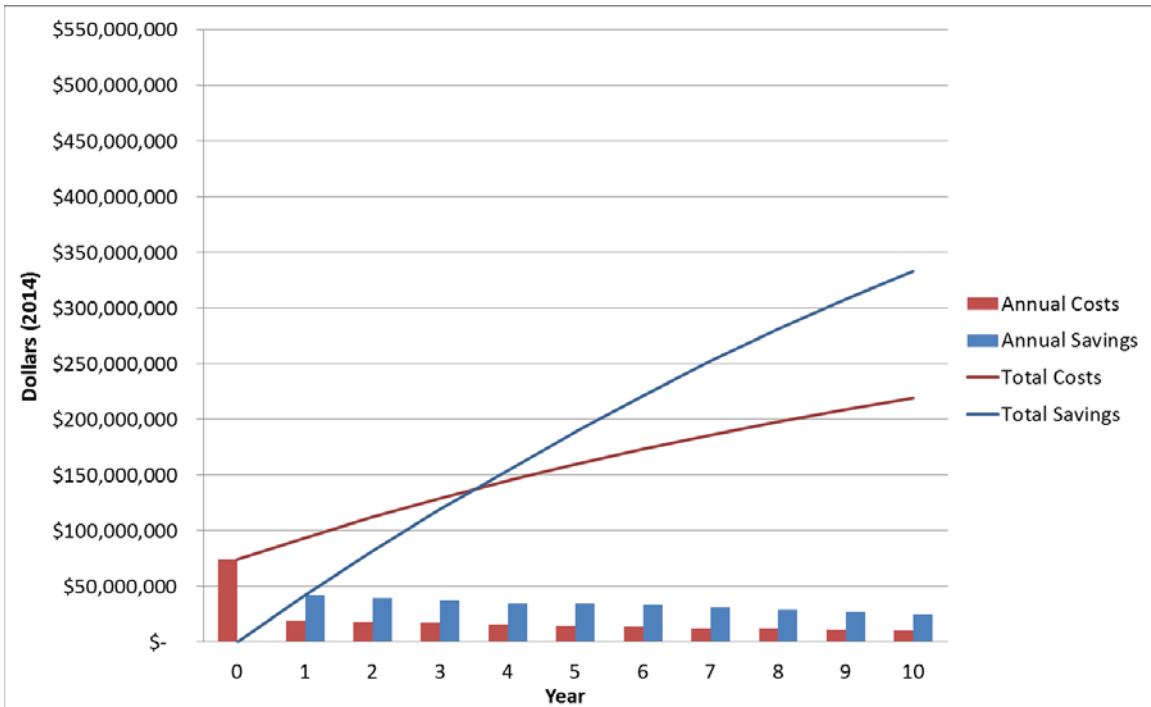


Figure ES-2: Electronic Reporting Costs/Savings Analysis – 7% Discount Rate



The rule will vastly reduce the need for authorized NPDES programs to enter data submitted by regulated entities into information systems, which accounts for most of the savings. Those savings are partially offset by data entry associated with the modified universe of facilities for which authorized NPDES programs will be required to provide facility and permitting data to

EPA. The rule will also reduce the need for paper and postage by authorized NPDES programs and regulated entities. All of these costs and cost savings are incorporated into the estimates discussed above.

In addition, based on Ohio's experience with its electronic reporting system for these data, the rule should reduce the need for error checking of the data by authorized NPDES programs, and the need for regulated entities to revise and reenter data. If the reduction in errors in DMR data reported by Ohio can be extrapolated to all permitting authorities, EPA estimates there would be an additional total time and cost saving of approximately 130 full-time equivalents (FTEs) and \$9.3 million in wages. Because they are an extrapolation only, however, these additional potential savings from reduced error checking are not included in the estimates discussed above or the total savings presented elsewhere in the analysis.

Burden Reduction – Burden for states and regulated entities will be reduced by an estimated net of 0.6 million hours in total over the first three years after the effective date of the rule. At full implementation (five years after the effective date of the rule) net burden reduction is estimated to total 0.9 million hours per year. The final rule will transform the NPDES program from a paper reporting program to a modern electronic program. The reductions translate into an annual savings to states and regulated entities at full implementation of \$23.1 million. State paper reporting would be eliminated for: quarterly noncompliance report (QNCR) for major facilities; semi-annual statistical summary report for major facilities; annual non-compliance report (ANCR) for nonmajor facilities; and annual biosolids report from states to EPA.

Qualitative Benefits – Other anticipated benefits of the rule include improved quality and accuracy of the data available to regulatory agencies and the public; more timely and expanded use of the data to identify, target, and address problems; quicker availability of the data for use; and increased accessibility and transparency of the data to the public. These benefits should allow states to shift precious resources from data management activities to activities more useful in solving water quality and noncompliance issues. This shift will, in turn, contribute to increased compliance, and a level playing field for the regulated community.

EPA will make much of this enhanced and improved data available to the public, as it does now with the existing data, to provide communities and citizens with the best available information on facility and government performance. Such data provides a powerful incentive to improve performance by giving government, regulated entities and the public ready access to more complete compliance information. This incentive can serve to elevate the importance of compliance information and environmental performance within regulated entities, providing an opportunity for them to quickly address any noncompliance. More complete, accurate and timely data can provide the private sector and consumers with facility and company performance information. It provides regulators the ability to monitor and assess performance systematically and to quickly address significant issues that may be hidden in unmanageable paper reports, minimizing environmental and public health impacts. It creates an opportunity for two-way communication with regulated entities to immediately address data quality issues and to provide compliance assistance or take other action when potential problems are identified. Complete and accurate data also allows EPA to compare performance across authorized programs, leading to more effective national program management.

The rule will also lighten the reporting burden currently placed on the states. Upon successful implementation, the rule will provide states with regulatory relief from reporting associated with the Quarterly Non-Compliance Report (QNCR), the Annual Non-Compliance Report (ANCR), the Semi-Annual Statistical Summary Report (SASS), and the biosolids information required to

be submitted to EPA annually by states. Under the rule, the non-compliance and statistical summary reports from each authorized program will be replaced by a single National Non-compliance Report prepared by EPA headquarters.⁴

Under the rule, the resulting information flows will allow EPA and authorized NPDES programs to manage the NPDES program more efficiently. With electronic reporting, EPA and states will be able to use self-reported regulated entity data in near real time. Permitted facilities will have more control over how and when their data are added to the information systems, and will be able to use the data to identify and address issues before they become violations. Electronic reporting also improves data quality and allows for data sharing across federal and authorized NPDES program regulators using the Exchange Network – a network EPA built to foster data sharing between EPA and the states. Bringing the additional information about both major and nonmajor regulated entities into ICIS-NPDES will allow authorized NPDES programs and EPA to better monitor and report on the status of the NPDES programs they administer.

Having data that are more current, comprehensive, and accurate will improve targeting of federal and state resources to the most serious water quality and compliance problems. Improved NPDES data can significantly improve EPA’s knowledge of the regulated community; and that knowledge is essential for problem identification and for developing sound regulations, guidance, and policy. Regulated entities will benefit by knowing that the compliance information in EPA’s data systems is timely and accurate, and by taking advantage of the on-line data quality tools to ensure that the data they submit is accurate.

ES.3 Major Factors Taken into Consideration in Estimating Savings and Costs

The following factors have the greatest impact on the savings and costs of the final rule:

- Cost of necessary changes to existing EPA and state data systems;
- States that have already begun developing electronic reporting (e.g., EPA estimates that 35 states are already using electronic DMR systems);
- Estimated universe of regulated entities;
- Number of regulated entities needing electronic signatures for electronic data entry;
- Changes in who enters the data;
- Frequency of various data reports;
- Data to be collected;
- Time required to enter data into information systems; and
- The schedule for rule implementation.

In fact, a number of these factors changed between this analysis and the economic analysis for the proposed rule. As a result, the estimates of both ongoing annual costs and cost savings have increased from those estimated for the proposed rule. The estimated total initial implementation costs have remained nearly the same. The result is an increase in net savings at full implementation to authorized NPDES programs and EPA Regions, along with a decrease in net savings to regulated entities. Estimated cumulative net benefits over ten years have also increased.

⁴ See Sections 3.4.4 and 4.4.4.

The changes in estimated costs and cost savings result from changes in the rule provisions from proposed to final, as well as changes in the underlying data and assumptions used in the economic analysis. The most significant of these changes are the following:

- Revisions to the estimated cost of electronic reporting tool implementation;
- Additional activities supporting rule implementation;
- Reduction in the potential for dual electronic/paper reporting during transition;
- Changes to the phase-in schedule;
- Reduction in the number of required data elements;
- Inclusion of password reset costs;
- Inclusion of the full cost of electronic tool implementation by states;
- Inclusion of ongoing costs for states to manage data transfer to EPA and provide ongoing training and support for electronic reporting; and
- Incorporation of multiple DMR forms per submission.

The last change, number of DMR forms per submission, had the single largest impact on the estimates because of its impact on ongoing data entry and processing cost savings. See Section 4.6 for complete discussion of changes from the proposed rule estimates and the significance of assumptions about the number of DMR forms.

ES.4 Key Acts and Regulations that Must be Addressed by the EA

Small Entity Analysis – As required by the Regulatory Flexibility Act, the final rule’s likely impact on small entities was evaluated. Following EPA guidance, a significant impact may occur when compliance costs are equal to or greater than 1% of the revenue of small parent entities. While impacts of greater than 1% are estimated to be incurred due to the rule, impacts of greater than 1% are incurred by far fewer than 100 small entities and considerably less than 20% of all small entities for all sectors and for each sector individually due to relatively low per entity compliance costs. Therefore, the rule is not expected to significantly impact a substantial number of small entities.

Regulatory Planning and Review (EO 12866) – This EO requires additional analyses for rulemakings with an economic impact of \$100 million or more in any year. The Economic Analysis for this final rule indicates that the annual economic impact will be less than the \$100 million annual threshold, so the additional requirements are not applicable.

Unfunded Mandates Reform Act (UMRA) – This Act requires undertaking additional analyses for rulemakings that impose burdens of \$100 million or more in any year. The Economic Analysis for this final rule indicates the annual implementation costs will be less than the \$100 million threshold, so the additional requirements of the UMRA are not applicable.

ES.5 Key Steps for Implementation

Updating the NPDES information flow will allow states and EPA to each have a central repository of NPDES information and to readily share that information through the internet. The major activities necessary to update the way states share information with EPA are:

- Authorized NPDES program and EPA implementation of an electronic reporting system for submitting regulated entity data;

- Authorized NPDES program and EPA implementation of an electronic reporting system for submitting authorized NPDES program data to EPA;
- Authorized NPDES programs making decisions regarding their initial recipient status;
- Authorized NPDES programs demonstrating their attorneys general accept electronic signatures in lieu of physical signature, thereby certifying compliance with EPA's Cross Media Electronic Reporting Rule (CROMERR);
- Authorized NPDES programs preparing implementation plans and EPA review and approval of those plans;
- Authorized NPDES programs updating their Memoranda of Agreement with their Regional Administrator;
- Authorized NPDES program and EPA developing criteria for temporary and permanent waivers from electronic reporting;⁵
- Authorized NPDES program and EPA coordination via training webinars;
- Authorized NPDES program entering newly shared data for all regulated entities;
- EPA assessing participation rates and, where appropriate, conducting oversight using its Clean Water Act (CWA) authority and Information Collection Request (ICR) to compel NPDES-regulated entities to utilize their NPDES program's electronic reporting system; and,
- Authorized NPDES program and EPA modifying permits to require electronic submissions.

Regulated entities and authorized NPDES programs will need to make changes in order to use the updated databases and reporting tools. The activities required to use the updated systems are:

- Regulated entity registration for and maintenance of user accounts in CDX or the state authorized NPDES program electronic system and submission of electronic signature agreements;
- Regulated entity training;
- Regulated entity submission of electronic NOIs, DMRs, and program reports; and,
- Authorized NPDES program electronic submission of programmatic Appendix A data to EPA.

During the initial implementation period (within five years after the effective date of the rule), some regulated entities might submit data both electronically and on paper. The conditions under which this "dual reporting" could occur are the following:

- The regulated entity's authorized NPDES program has an electronic reporting system in place;
- The regulated entity's permit (or other control mechanism) explicitly requires paper reporting;
- The conditions that require paper reporting are not changed outside of the normal permit cycle (e.g., through the minor modification process); and
- The authorized NPDES program does not use its enforcement discretion to refrain from enforcing the conditions that explicitly require paper reporting.

⁵ The analysis accounts for the costs to authorized NPDES programs and EPA to develop waiver criteria, as discussed in Section 4.3.3 and assumes that, in practice, a small percentage of regulated entities receive waivers, as discussed in Section 4.1.

These conditions are likely to occur only for a small number of regulated entities and would last only until the permit is re-issued with electronic reporting requirements on the normal permit cycle.

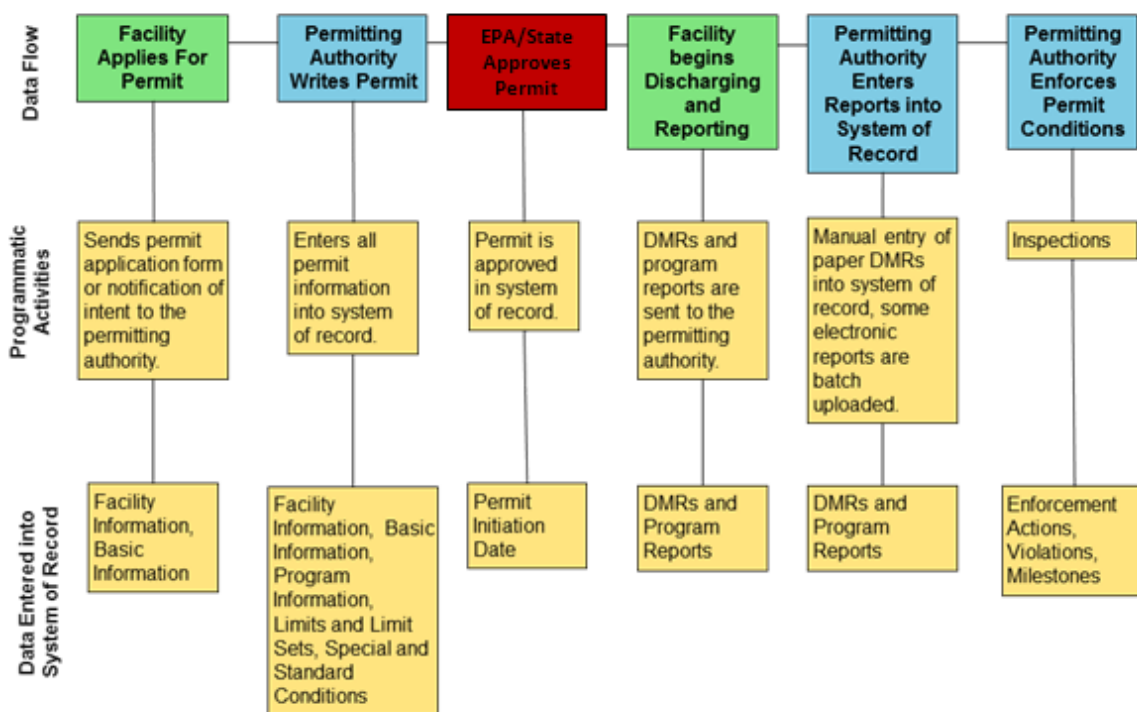
Section 1. – Background and Overview of the Economic Analysis of the NPDES Electronic Reporting Rule

1.1 Introduction

Through the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting rule, EPA will convert current paper reporting requirements to electronic. In doing so, EPA will establish a nationally consistent set of required information for the full scope of the NPDES program, for NPDES data that must be submitted to, or entered into, EPA's Integrated Compliance Information System (ICIS)-NPDES. EPA needs regulated entity-specific information in order to provide national program direction and oversight; to ensure that implementation and enforcement of the NPDES program, both nationally and locally, will effectively protect human health and the environment; and to facilitate public access to NPDES information. This rule will also require that NPDES data be submitted to EPA electronically, either by regulated entities or authorized NPDES program, as appropriate, which will reduce the burden of data entry on states, tribes, and territories (hereinafter referred to as states) and EPA Regions. The rule does not require collection or reporting of any new data.

This report analyzes the economic impact of the electronic reporting rule and presents the methodology, information sources, and detailed results of the Economic Analysis (EA). To understand the effects of the rule, however, this section documents how the NPDES program currently operates and the existing information resources used to support the NPDES program. Figure 1-1 illustrates the current flow of NPDES data from responsible party (regulated entity, authorized NPDES program, EPA) into the data system. It also identifies the activities undertaken by each responsible party, as well as the type of data entered. Section 1.2 provides a description of the statutory and regulatory history of the NPDES program followed by a summary of existing NPDES reporting requirements and how the data have been and are being used (Section 1.3). The section concludes with a description of the final rule (Section 1.4) and lays out the organization of the remaining sections of the report (Section 1.5).

Figure 1-1: Current Flow of NPDES Data



1.2 Statutory and Regulatory History of the NPDES Program

1.2.1 Clean Water Act

The Clean Water Act (CWA) establishes the NPDES program to regulate the discharges of pollutants to waters of the United States (33 U.S.C. §1342). EPA has issued comprehensive regulations implementing the NPDES program at 40 CFR part 122.

Under CWA §402(b) and 40 CFR part 123, states may be authorized to administer the NPDES program. The NPDES Program consists of various components, including: 1) the NPDES core program for municipal and industrial facilities;⁶ 2) Federal Facilities; 3) General Permitting; 4) Pretreatment Program; and 5) Biosolids. States can adopt the NPDES core program and one or more of the other components as part of their authorization. In accordance with 40 CFR subpart B, states that want authorization to administer the NPDES program submit to EPA a letter from the Governor requesting review and approval, a Memorandum of Agreement (MOA), a program description, a statement of legal authority (also known as an “Attorney Generals Statement” or “AG Statement”), and supporting state laws and regulations. The process of authorization includes a public review and comment period, and a public hearing (40 CFR §123.61(b)). If EPA disapproves the program, EPA remains the authorized NPDES program for that state (40 CFR §123.61(d)). If EPA approves the program, the state is authorized to administer the NPDES program. A state may request and receive authorization to administer one or more of the NPDES Program components. After EPA approves the state’s proposed program(s), all new permit applications for the program(s) are submitted to the authorized states for NPDES permit

⁶ The core program refers to the ability to issue permits to direct discharges, conduct compliance activities, take enforcement actions, etc.

issuance.⁷ EPA, through its regional offices, retains authorized NPDES program for all programs not specifically authorized to the states.

EPA regulations require authorized NPDES programs to keep records and submit to EPA such information as the Agency may reasonably require to ascertain whether the program as implemented complies with the requirements of the CWA and EPA's regulations (40 CFR §123.43(d)). In addition, authorized NPDES programs are required to make available to EPA upon request any information authorized NPDES programs obtain or use in administering their NPDES programs (40 CFR §123.41(a)).⁸ Forty-six states and one territory have requested and received authority to administer one or more NPDES programs. As a result, EPA shares NPDES program implementation in varying degrees with 46 states and one territory and is the sole authorized NPDES program for four states, all of the tribes, and 15 territories.

EPA accounts for the burden associated with the reporting requirements of the CWA and EPA's regulations under several ICRs, including the following:

- Consolidated NPDES ICR (2040-0004);
- Consolidated Animal Sectors ICR (2040-0250);
- Pesticides General Permit ICR (2040-0284);
- Airport Deicing ICR (2040-0285);
- Cooling Water Intake Structures - New Facility (Renewal) (2040-0241);
- National Pretreatment Program: Streamlining Final Rule (2040-0009);
- Cooling Water Intake Structures at Phase III Facilities (Final Rule) (2040-0268); and
- Cooling Water Intake Structures Existing Facility (Phase II) (Renewal) (2040-0257).

The ICR accompanying this final rule accounts for the change in burden associated with the shift to electronic reporting under the rule (see Section 7.2). Going forward, EPA plans to incorporate these changes in burden into the Consolidated NPDES ICR (2040-0004) as that ICR is re-issued.

1.2.2 1985 PCS Policy

To implement 40 CFR 123.43(d) and other regulations, EPA has issued guidance on the information to be submitted electronically to a national database. In particular, the 1985 PCS Policy Statement (as amended in 2007)⁹ and the PCS Quality Assurance Manual identify the timeliness, accuracy, completeness, and consistency expectations for state data entry into ICIS-NPDES. Both guidance documents were originally developed by EPA for use with PCS but were subsequently adapted and are still in effect for ICIS-NPDES.

The PCS Policy Statement supports sound management of the NPDES program nationally and ensures that the program achieved the CWA's environmental goals. The 1985 PCS Policy Statement specified that: 1) PCS would be the national data base of record for the NPDES program; 2) EPA Regions must use PCS directly; and 3) all NPDES authorized states, tribes and territories must either use PCS directly or develop and maintain and technology and protocols that transfer NPDES data to PCS. EPA also uses two mechanisms, a Memorandum of Agreement and

⁷ See the following EPA webpage for a current listing of NPDES program authorizations:
<http://water.epa.gov/polwaste/npdes/basics/State-Program-Status.cfm>

⁸ See Section 1.3 for information on how this information is currently shared/stored.

⁹ See DCN 0056.

CWA Section 106 Work Plan, for requiring data sharing between state NPDES programs and EPA.

1.2.3 1987 Water Quality Act and 2000 Wet Weather Water Quality Act

In response to growing concerns about stormwater issues, Congress passed the 1987 Water Quality Act which extended NPDES requirements to stormwater discharges. This action expanded the NPDES program to include stormwater discharges. In December 2000, Congress also amended the CWA with the “Wet Weather Water Quality Act.” These amendments added Section 402(q)(1) to require consistency with EPA’s Combined Sewer Overflow (CSO) Control Policy in permitting and enforcement activities.

1.3 Summary of the NPDES Program Reporting Requirements

1.3.1 Current Status

Three major groups are required to fulfill different reporting requirements under the NPDES program:

- **NPDES regulated entities:** These facilities are regulated by one or more components of the NPDES program. Facilities that discharge pollutants to the waters of the United States and therefore are required: 1) to apply for permits under NPDES; and, 2) to regularly report self-monitoring information (e.g., testing of pollutant concentrations in wastewater discharges, program reports). Publicly owned treatment works (POTWs) and other treatment works treating domestic sewage (TWTDSs) that generate biosolids are regulated by the Biosolids Program (40 CFR 503) and industrial facilities that discharge to POTWs are regulated by the Pretreatment Program (40 CFR 403).
- **NPDES Regulatory Authorities:** The EPA Regions or authorized state, tribe, or territory responsible for administering the NPDES program within a given geopolitical unit (e.g., state).
- **U.S. EPA:** The agency maintains oversight across all components of the NPDES program.

This section describes the current roles and responsibilities of each group within the NPDES program.

Regulated Entities

Regulated entities must comply with record-keeping and reporting requirements, and a variety of standard conditions included in EPA regulations, NPDES permits, and other control mechanisms (40 CFR 122.41). Record-keeping and reporting requirements often include preparation and submission to the authorized NPDES program of monthly discharge monitoring reports, which were traditionally paper documents.¹⁰ Additional reporting may include program reports as required by specific NPDES subprograms [e.g., CAFOs, pretreatment, biosolids, sewer overflows, and Municipal Separate Storm Sewer System (MS4)] (40 CFR 122.42).

¹⁰ Some regulated entities may test their own samples and mail DMRs directly to the state. Other regulated entities will send samples to an independent laboratory for testing. Contract laboratories may send the DMR back to the regulated entity for signature and submission or submit directly to the authorized NPDES program.

Authorized NPDES Programs

The authorized NPDES program is the EPA Region or authorized state, tribe, or territory responsible for administering the NPDES program within a given geopolitical area. In some cases, a state may have been approved to administer certain NPDES programs, while the EPA regional office still manages the remaining subprograms or activities. The responsibilities of the authorized NPDES program include: writing NPDES permits or control mechanisms; receiving reports from permitted facilities and entering their information into the data system; and performing the compliance and oversight activities prescribed in the NPDES Compliance Monitoring Strategy.¹¹

EPA

EPA has primary responsibility for effectively and consistently implementing the NPDES program across the country, thus ensuring that the public health and environmental protection goals of the CWA are met. EPA's responsibilities include:

- Enforcing the requirements of the CWA and the NPDES program;
- Identifying the universe of facilities covered by the NPDES program;
- Developing sound regulations, guidance and policy;
- Conducting oversight of authorized states;
- Identifying the compliance status of facilities subject to NPDES regulations in a nationally consistent manner;
- Monitoring and reporting the status of implementing the CWA;
- Identifying potential non-compliance problems and their associated environmental impacts to effectively target resources;
- Demonstrating results achieved to meet NPDES program goals, including the Government Performance and Results Act (GPRA) measures reported to Congress, under Goal 2 (Clean and Safe Water) and Goal 5 (Compliance and Environmental Stewardship);
- Responding to inquiries from Congressional members;
- Administering the NPDES programs (policy setting, permitting, compliance monitoring, inspections and enforcement) in those states and subprograms where states have not assumed responsibility; and,
- Informing the public about the permitting and compliance status of facilities in their communities.

To accomplish these goals, EPA uses and maintains the Integrated Compliance Information System – National Pollution Discharge Elimination System (ICIS-NPDES), a modernized system developed in 2005 to replace the legacy Permit Compliance System (PCS).

1.3.2 Regulated Entity Types

NPDES Permitted Facilities

NPDES permitted facilities are grouped in terms of major and nonmajor sources and whether they have coverage under an individual or general permit. NPDES permitted facilities designated as major include POTWs with designed discharge flows of greater than one million gallons per day (1 MGD) and active major industrial facilities scoring more than 80 for the six factors (toxicity, volume, conventional pollutants, public health impact, water quality, and proximity to coastal

¹¹ See DCN 0188.

waters) on the “NPDES Permit Rating Work Sheet.”¹² NPDES permittees that are not designated as majors are classified as nonmajors. General permits authorize discharges and establish operating and reporting requirements under the CWA for specific categories of dischargers (e.g., stormwater discharges from construction activities). Nearly all of the approximately 6,800 NPDES facilities designated as majors have individual permits. There are many more NPDES facilities designated as nonmajors than majors and most nonmajors have coverage under general permits (e.g., construction stormwater permits). At present, most of these facilities (major and nonmajor) submit the information required under the NPDES program on paper, with the exception of some facilities that are already using EPA or state electronic reporting systems (see Section 1.3.6).

Under the final rule, NPDES permittees would electronically submit their compliance monitoring data (e.g., DMRs, program reports) to their authorized NPDES program. Some NPDES regulated entities have multiple NPDES compliance monitoring reporting requirements. For example, POTWs may submit the following compliance monitoring data to their authorized NPDES program:

- DMRs [40 CFR 122.41(l)(4)];
- Sewage Sludge/Biosolids Annual Program Report [40 CFR 503];
- Pretreatment Program Annual Report [40 CFR 403.12(i)]; and
- Sewer Overflow/Bypass Event Reports [40 CFR 122.41(l)(4), (l)(6) and (7), (m)(3)].

The recipient of these compliance monitoring data depends on the NPDES authorization status of the state, tribe, or territory. For example, a POTW may send its DMRs to the state if it is authorized to implement the NPDES core program for municipal and industrial facilities and its Pretreatment Program Annual Report to an EPA Region if the state is not authorized to administer the pretreatment program.

Biosolids Facilities

Section 405 of the CWA sets the statutory framework for regulating sewage sludge (biosolids). EPA has established a protective regulatory framework to manage the use and disposal of biosolids at 40 CFR Part 503. Part 503 is a “self implementing” rule, which means that entities producing biosolids are regulated whether or not these requirements are included in a permit. Most facilities regulated by Part 503 also have an NPDES permit. Under the final rule NPDES regulated entities would electronically submit their Sewage Sludge/Biosolids Annual Program Report [40 CFR 503]. At present, these reports are submitted on paper.

Significant Industrial Users

POTWs receive wastewater from households (domestic waste), as well as from a wide variety of commercial and industrial facilities, referred to as industrial users (IUs). The types of IUs range widely, from small restaurants to hospitals to large and complex organic chemical manufacturers. EPA has further identified some IUs as categorical industrial users (CIUs), i.e., IUs subject to EPA’s pretreatment standards developed for particular industrial categories, and significant industrial users (SIUs), i.e., IUs that are either CIUs or discharge process wastewater above the thresholds set in 40 CFR 403.5. EPA has developed a comprehensive pretreatment program implemented through EPA Regions, state, tribes, territories, and POTWs to control IU discharges of pollutants that might pass through or interfere with POTW treatment processes or contaminate

¹² <http://www.epa.gov/npdes/pubs/owm0116.pdf>

sewage sludge, thereby posing a threat to human health or the environment. Under the final rule the SIUs and CIUs in municipalities without an approved pretreatment program would electronically submit the following data: (1) Periodic reports on continued compliance for CIUs [40 CFR 403.12(e)]; and (2) Periodic reports on continued compliance for Non-CIUs [40 CFR 403.12(h)]. At present, these reports are submitted on paper.

1.3.3 EPA Data Sharing Policy

The 1985 PCS Policy defines the required data necessary to enable PCS to function as a useful operational and management tool for the NPDES program. The list of required data elements is called the Water Enforcement National Data Base (WENDB). Values for many of the data elements are updated on the permit cycle (every five years). Values for other data elements are entered as an activity or event occurs (e.g., effluent monitoring, inspections, violations, enforcement actions). Each state's data is now stored in ICIS-NPDES (all PCS data has been transferred to ICIS-NPDES, and PCS is no longer in operation). The list of WENDB data elements uses the major/nonmajor distinction to identify the data states are required to input into ICIS-NPDES. For example, states are required by the PCS Policy to input DMR data into ICIS-NPDES for majors but only encouraged to do so for nonmajors.

1.3.4 Regulated Entity Supplied Data

EPA requires regulated entities to submit information as part of their permit applications, notices of intent (NOIs), Notice of Termination (NOT); No Exposure Certifications (NECs); Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs), discharge monitoring reports (DMRs), and program reports (e.g., CAFOs, pretreatment, biosolids, sewer overflow/bypass event reports, MS4 program reports). Some authorized NPDES programs give regulated entities the option to file one or more of these documents electronically; however, the majority of these data are currently submitted to the authorized NPDES program in paper form. For a complete listing of these data see NPDES Data Group Number 2 through 9 in Table 1 to Appendix A to 40 CFR 127.

Required Information for Facilities with Individual NPDES Permits and Significant Industrial Users

Most facilities with individual NPDES permits (major and nonmajor) submit DMRs [40 CFR 122.41(l)(4)] to their authorized NPDES program (often on a monthly frequency). Additionally, some individually permitted facilities are also required to submit programs reports which include:

- CWA §316(b) Annual Report [40 CFR 125 Subpart J]
- Sewage Sludge/Biosolids Annual Program Report [40 CFR 503]
- Concentrated Animal Feeding Operation (CAFO) Annual Program Reports [40 CFR 122.42(e)(4)]
- Municipal Separate Storm Sewer System (MS4) Program Report [40 CFR 122.34(g)(3) and 122.42(c)]
- Pretreatment Program Annual Report [40 CFR 403.12(i)]
- Sewer Overflow/Bypass Event Reports [40 CFR 122.41(l)(4), (l)(6) and (7), (m)(3)]

Significant industrial user in municipalities without approved pretreatment programs must also submit bi-annual compliance reports [40 CFR 403.12(e) and (h)].

Required Information for Facilities with General NPDES Permits

EPA and authorized states, tribes, and territories issue general permits to cover multiple similar facilities under a single permit. Where a large number of similar facilities require permits, a general permit allows the authorized NPDES program to allocate resources in a more efficient manner and provide timelier permit coverage than would occur if individual permits had to be issued to each similar facility. States, tribes, and territories must seek EPA approval to administer general permits. EPA's regulations governing the General Permit Program are located at 40 CFR 122.28. EPA and authorized programs have issued over 700 general permits nationwide. Nearly all general permit covered facilities are classified as nonmajors.

After the final general permit has been issued, there are several general permit reports that facilities must submit to their authorized NPDES program, including:

- Notice of Intent (NOI) to discharge: This is the initial submission seeking coverage under a general permit [40 CFR 122.28(b)(2)(i) and (ii)];
- Notice of Termination (NOT): A request by the permittee to terminate their coverage under an existing permit (40 CFR 124.5);
- No Exposure Certification (NEC): A certification from a facility indicating that coverage under an existing stormwater general permit is not necessary due to certain facility-specific conditions [40 CFR 122.26(g)(1) and (4)]; and
- Low Erosivity Waiver and Other Waivers from Stormwater Controls (LEW): A certification from a facility indicating that coverage under an existing construction stormwater general permit is not necessary due to certain facility-specific or climate conditions [40 CFR 122.26(b)(15)].

It is important to note that EPA general permit regulations (40 CFR 122.28) do not require all general permit covered facilities to submit NOIs for all general permits issued by EPA and authorized state NPDES programs. Some general permits provide for automatic coverage. This means that neither EPA nor the authorized state, tribe, or territory programs will have information regarding exactly which facilities are regulated under these general permits.

General permits cover a wide range of facility types that range from the very large (e.g., offshore oil and gas facilities, seafood processors) to very small discharges. Discharges from facilities covered under general permits include a variety of pollutants, such as total suspended solids, biochemical oxygen demand, oil and grease, bacteria, nutrients, hydrocarbons, metals, and toxics.

Basic facility information for some facilities covered by general permits is currently required to be entered into ICIS-NPDES in accordance with the PCS Policy. Requirements to submit DMRs or program reports (e.g., Sewage Sludge/Biosolids Annual Program Report, CAFO Annual Program Reports, MS4 Program Report, Pretreatment Program Annual Report) vary based on the type of general permit under which a facility is covered.

1.3.5 Authorized NPDES Program Supplied Data

NPDES permits are reviewed and potentially revised and reissued every five years. Basic facility data, basic permit data, and monitoring data are submitted by regulated entities to states on the NPDES application or renewal form. These are typically paper submissions. Authorized programs take these data and issue a new or revised permit (with permit limit sets¹³) and enter a

¹³ A limit set consists of the parameters against which a regulated entity's effluent is measured in order to determine whether the facility is in compliance with its permit.

portion of these facility and permit data into ICIS-NPDES. There are differing data entry requirements for majors and nonmajor facilities.

The authorized NPDES program is also responsible for tracking and logging compliance monitoring, violation, and enforcement action information into ICIS-NPDES. The authorized NPDES program is responsible for receiving and processing reporting information submitted by regulated entities (e.g., DMRs). When received in paper form, the authorized NPDES program must enter the required information into the NPDES system of record (ICIS-NPDES or a data system operated by the authorized NPDES program). There are differing ICIS-NPDES data entry requirements for major and nonmajor facilities.

Inspection, violation, and enforcement action information must be entered by the authorized NPDES program for major facilities as they occur. EPA's current goal under the NPDES Compliance Monitoring Strategy is for 100% of major regulated entities to receive at least one Compliance Evaluation Inspection, Compliance Sampling Inspection, Performance Audit Inspection, Diagnostic Inspection, Compliance Bio-Monitoring Inspection, and/or Toxics Sampling Inspection every two fiscal years.¹⁴ EPA has set the goal that individual nonmajor permits be inspected at least once during the permit cycle. For a complete listing of these data see NPDES Data Group Number 1 in Table 1 to Appendix A to 40 CFR 127.

1.3.6 Electronic Reporting

While electronic reporting is not currently required, there are tools regulated entities can use to file some reports electronically. For example, EPA's electronic Notice of Intent (eNOI) allows regulated entities in states where EPA is the authorized NPDES program to apply electronically for coverage under the Multi-Sector General Permit, the Construction General Permit, Vessels General Permit, and the Pesticides General Permit. Similarly, EPA's NetDMR tool allows regulated entities to submit their discharge monitoring reports electronically. EPA estimates that 38 state authorized NPDES programs have adopted some form of electronic reporting for one or more of the NPDES program areas (e.g., NetDMR, eDMR, or eNOI systems). Based on available information, most of these state programs are voluntary. Participation in these programs varies greatly from state to state, ranging from 10% to nearly 100% of permittees. EPA is also developing a new tool suite for NOIs and other general permit forms and program reports, the NPDES e-Reporting Tool (NeT). EPA's 2015 Multi-Sector General Permit that controls industrial stormwater also uses NeT. EPA plans to make this tool available to the states as part of the implementation for this rule.

1.4 Description of the Final Rule

1.4.1 Statement of Need

Through this rule, EPA seeks to improve the accessibility, timeliness, consistency, and accuracy of data from all facilities regulated by the NPDES program. This effort will provide the public, EPA, states, and regulated entities with better access to more timely, complete, and accurate NPDES data. The needs of these user groups for NPDES data are described in more detail below.

The Public

At present, the public has limited information regarding a substantial portion of the NPDES regulated universe. One of EPA's goals is to increase the transparency of its environmental programs and their results. This rule supports that goal by improving the quality and availability

¹⁴ See DCN 0188.

of information regarding the compliance status of the nation's water dischargers and the enforcement responses taken by authorized NPDES programs and EPA. Electronic reporting by NPDES regulated entities will increase the timeliness, completeness, and accuracy of NPDES information made available to the public. It is expected that with these changes in place, the public can more effectively monitor and address local and national concerns regarding the state of the waters of the United States.

EPA

EPA has primary responsibility for ensuring the CWA's NPDES program is effectively and consistently implemented nationwide, thus ensuring that public health and environmental protection goals of the CWA are met. This rule uses existing regulations to identify the information EPA needs to receive from NPDES regulated entities and authorized NPDES programs in order to effectively manage the national NPDES program, including permitting and enforcement.

Authorized NPDES Programs

Authorized NPDES programs are currently inundated with paper reports from regulated entities. Valuable resources are used reviewing those submissions for errors, working with regulated entities to correct errors, and then entering the data into information systems. The time required for these activities delays the availability of the data, and makes it difficult for authorized NPDES programs to identify real violations and compliance issues in a timely manner.

Regulated Entities

NPDES regulated entities have an interest in ensuring that the information used by their authorized NPDES program and EPA is as accurate and current as possible, because the permitting authorities use this information in evaluating compliance status. Facilities have an interest in ensuring that they are not mistakenly identified as being in noncompliance due to a state data entry error. Data errors occur most often when data are manually entered into an electronic data system from paper forms. In particular, these transcription errors can be the result of an omitted decimal place, errant unit for a pollutant parameter, or incorrect transcription from a handwritten value on a paper form. NPDES regulated entities have an interest in showing that their most current compliance status is also correctly identified by their permitting authority. Through electronic reporting, regulated entities can be more confident that their reports are received on time by the authorities and that their compliance status is characterized correctly.

1.4.2 Changes to the NPDES Program under the Final Rule

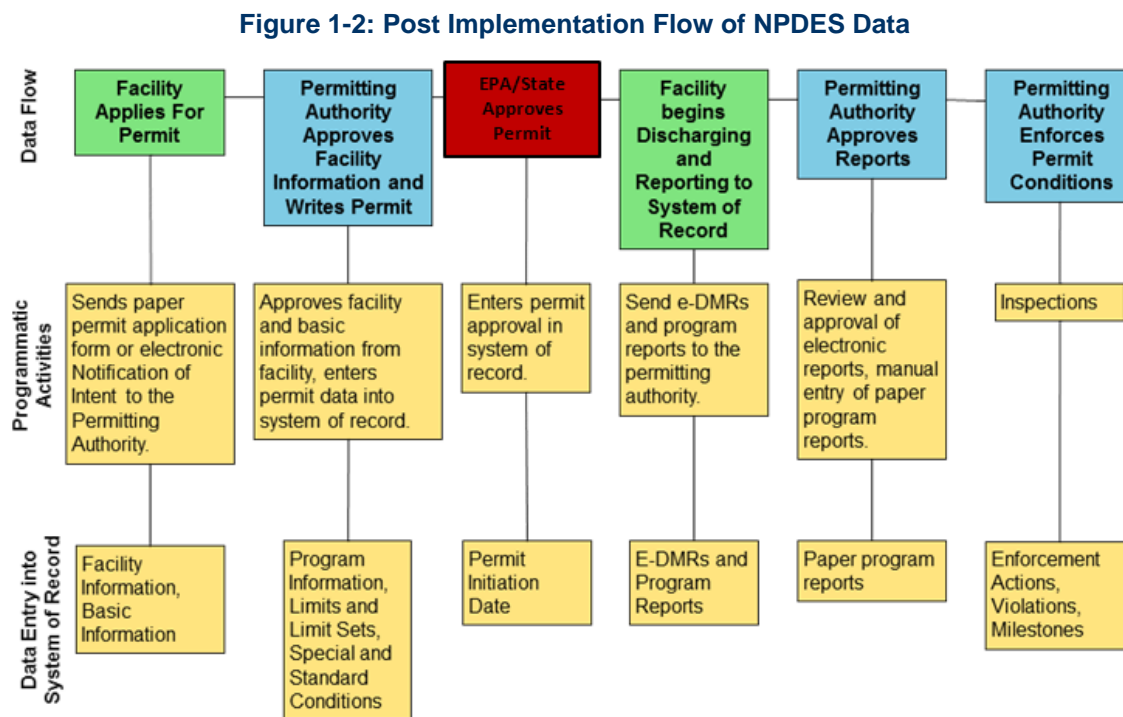
This final rule will require regulated entities to submit certain information electronically to their respective authorized NPDES program.¹⁵ Appendix A to the final rule (40 CFR part 127) is the minimum set of NPDES program data that must be electronically collected, managed, and shared between NPDES-regulated facilities, authorized NPDES programs, and EPA.¹⁶ Appendix A of

¹⁵A state may request and receive authorization to administer one or more of the NPDES Program components. Consequently, a state may be authorized to administer the core program but not the pretreatment program. In this example, DMRs would be electronically submitted to the authorized state and the Pretreatment Program Annual Report would be electronically submitted to EPA.

¹⁶ States are free to require electronic reporting of additional information beyond the Appendix A data elements. For example, some states have state historical preservation requirements and collect these data on permit application forms. EPA's electronic reporting tools can be tailored to support collection of this additional information. However, because these additional data are not required by the rule, any burden and cost associated with these additional data is outside the scope of this analysis and not included in the estimates here.

this document identifies the data elements included in Appendix A to 40 CFR 127. EPA worked extensively with NPDES program experts from across the Agency and with authorized NPDES programs to develop and refine Appendix A. The purpose of Appendix A is to ensure that there is consistent and complete reporting nationwide, and to expedite the collection and processing of the data, thereby reducing burden and making the data more timely, accurate, complete, useful, and transparent for everyone.

Figure 1-2 illustrates the flow of NPDES data from a responsible party (regulated entity, authorized NPDES program, or EPA) into the system of record following implementation of the final rule. It also identifies the activities undertaken by each responsible party as well as the type of data expected to be submitted to ICIS-NPDES when the requirement for electronic reporting is in place.



Programmatic Data from the Authorized NPDES Program

Between 2002 and 2007, EPA and the states worked to identify the data needed by authorized NPDES programs to successfully implement and manage the NPDES program. Critical data elements and their end-uses were discussed by:

- The state and EPA members of the PCS Steering Committee;
- The PCS Modernization Executive Council; and,
- The expanded PCS Steering Committee, including the Environmental Council of States (ECOS) and the Association of Clean Water Administrators (ACWA).¹⁷

¹⁷ Formerly Association of State and Interstate Water Pollution Control Agencies (ASIWPCA).

These discussions led to the April 2007 issuance of a draft ICIS-NPDES Policy Statement that included the list of NPDES data authorized NPDES programs would report to EPA. EPA finalized a crosswalk from WENDB to ICIS-NPDES in December 2007.

Following receipt of numerous comments on the draft ICIS-NPDES Policy Statement from the states, EPA initiated a rulemaking to support a federal regulation requiring specific NPDES information from authorized NPDES programs.

Between 2008 and 2011, the focus of this rulemaking was expanded to consider how much of the NPDES information could reasonably be obtained electronically from authorized NPDES programs and NPDES regulated entities. EPA initiated an effort to carefully review data needs of various stakeholders, consider the types of information that would allow EPA to meet those needs, and then identify which reports should be submitted electronically. EPA also evaluated whether the information should be sought directly from the NPDES regulated entities or from the authorized NPDES program, acknowledging that for certain activities and responsibilities (such as permit issuance, inspections, compliance determinations, and issuance of enforcement actions), the authorized NPDES program would be the logical source of the required NPDES information.

In a series of technical analyses, EPA examined the feasibility of electronic reporting, existing regulatory data and reporting requirements, and EPA priorities, and prepared preliminary estimates of savings and costs. These analyses informed the development of the rule as well as the list of NPDES data elements required by the rule (identified in Appendix A to 40 CFR 127). During 2014 and 2015, EPA met with state technical experts to discuss all the data elements in Appendix A. In general, EPA simplified Appendix A to help make implementation of the final rule easier for authorized NPDES programs and NPDES regulated entities.

The final rule requires that the Appendix A data elements, all of which are already required to be reported by regulated entities or authorized NPDES programs, be entered into ICIS-NPDES. The required data elements fall into the following data families:¹⁸

Facility and Permit Information: The Facility Data Family includes data such as name and street address of the regulated entity and a contact name. Several pieces of facility information will be required under the final rule to improve EPA's management of regulated entities. Tribal Land data will allow EPA to identify effluents being discharged into waters in Tribal lands. Affiliation information (e.g. the name of the site engineer) is required to ensure reported data comes from the appropriate employee or representative.

The Permit Data Family includes basic permit information, tracking of a permit's issuance, narrative permit conditions such as permit schedules, and permitted features (outfalls).

Data elements like DMR non-receipt tracking flags, RNC tracking flags, and applicable effluent guidelines have been added under the final rule to help EPA characterize and monitor a regulated entity's compliance with their permit requirements. Data elements have also been added to address changes in standardized industrial classification taxonomies. The WENDB used the Standard Industrial Classification (SIC) codes to designate a regulated entity's industrial sector. Because the federal government has

¹⁸ A full list of the data elements in Appendix A to 40 CFR 127 is provided in Appendix A of this document.

adopted the North American Industrial Classification System (NAICS), Appendix A now provides the option to enter either SIC or NAICS codes. These changes will allow EPA to more effectively manage basic permit information for compliance and enforcement purposes.

Other permit data elements reflect changes to the NPDES program that have occurred since the original data set was established. Permit data elements associated with program areas established in the 1980s are needed in order to manage and measure the environmental impact of operations and facilities now covered under the NPDES program. Both the size of the permitted site and the sources of the discharge will be reported. Wet weather components are included to manage stormwater run-off from impervious surfaces. CSO data elements are included to monitor for possible discharges of untreated human and industrial waste. Other elements, such as Control Authority Identifier tie treatment facility permits to the approved local pretreatment programs, if applicable.

The Facility and Permit Data Families are treated similarly throughout this analysis and are referred to as Permit Data Elements throughout this report.

Discharge Monitoring Reports: The DMR Data Family includes effluent monitoring data provided by NPDES facilities. DMR information includes data elements regarding pollutant concentrations, wastewater flow, and other data about the effluent discharge.

Limits and Limit Sets: These data characterize limits and limit sets. Limit stay end date, reason for stay, enforcement action ID, and months a limit applies can be used to characterize and evaluate the appropriateness of effluent limits or stays of such limits.

Program Reports: The Program Reports Data Family includes program reports submitted for NPDES subprograms including: CAFOs, pretreatment, biosolids, sewer overflows, and MS4). Sewer overflows include sanitary sewer overflows, combined sewer overflows, and bypass events.

Compliance Monitoring: The Compliance Monitoring Activity Data Family documents compliance monitoring activities at permitted facilities. This family of data generally includes information associated with inspections such as inspection type, and dates associated with the inspection.

Compliance monitoring activity data allow EPA to track compliance monitoring of the regulated entity. Example data elements include: actual and planned end dates, the type of compliance monitoring, and identification of the programs monitored. These compliance monitoring activity data elements improve the Agency's understanding of where environmental impacts take place.

Violations: The Violation Data Family includes data associated with violations such as single event, effluent, and compliance schedule violations.

Enforcement Actions: The Enforcement Action Data Family includes data regarding the enforcement action itself (e.g., documenting reason for deleting an action) as well as associated compliance schedules and penalties.

Existing CWA regulations define what data must be reported by regulated entities and authorized NPDES programs. The final rule does not change those requirements. Similarly, existing regulations define the universe of NPDES regulated entities, and the final rule does not change those definitions.

The major changes resulting from the rule are that authorized NPDES programs will provide electronically to EPA more of the data they already collect for nonmajor (individual and general) permits, and data submitted by regulated entities will be received electronically by EPA and authorized NPDES programs.

Previously, most authorized NPDES programs provided EPA with comprehensive data on major regulated entities, but only basic facility information and compliance information was required for nonmajors. In addition, data from regulated entities was usually received in paper form and authorized NPDES programs were required to process those submissions and enter all of the data into their information systems.

Electronic Reporting and Data Flow

The final rule does not change the reports any regulated entity is required to submit, but it does require certain reports to be submitted electronically. The rule will require regulated entities to electronically submit the following reports:

1. General Permit Reports

- Notice of Intent to discharge (NOI)
- Notice of Termination (NOT)
- No Exposure Certifications (NECs)
- Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs)

2. Discharge Monitoring Reports

3. Program Reports

- CWA §316(b) Annual Report
- Sewage Sludge/Biosolids Annual Program Report
- Concentrated Animal Feeding Operation (CAFO) Annual Program Reports
- Municipal Separate Storm Sewer System (MS4) Program Report
- Pretreatment Program Annual Report
- Significant Industrial User Compliance Reports in Municipalities Without Approved Pretreatment Programs
- Sewer Overflow/Bypass Event Reports

These reporting requirements vary by permit type and subprogram, as presented in Table 1-1 below. EPA information systems will need to be modified to receive and send these electronic reports. In addition, authorized NPDES programs will need to modify their existing data processing technology and software, or adopt those provided by EPA, to receive these reports. Authorized NPDES programs operating their own NPDES data systems will also need to establish data flows to send all of the required data, regulated entity generated as well as authorized NPDES program generated, to ICIS-NPDES.

Table 1-1: Electronic Reporting Requirements by NPDES Subprogram			
NPDES Subprogram	General Permit Reports	DMR	Program Reports
Non-POTWs (Industrial, Agriculture, and Stormwater)			
Standard Industrial Dischargers (may also file CWA §316(b) data)	Yes ^a	Yes	No
CWA §316(b) Filers	No	Yes	Yes
Significant Industrial Users (SIUs)^b			
SIUs in Municipalities with Pretreatment Program	No	No	No
SIUs in Municipalities without Pretreatment Program	No	No	Yes
Concentrated Animal Feeding Operations (CAFOs)	Yes ^a	Yes	Yes
Industrial and Construction Stormwater			
Industrial	Yes ^a	Yes	No
Construction	Yes ^a	Yes ^c	No
Municipal Stormwater^d			
Phase I municipal separate storm sewer systems (MS4s)	Yes ^a	Yes	Yes
Phase II MS4s	Yes ^a	No	Yes
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)			
POTWs with Combined Sewer Systems (CSSs) ^e	Yes ^a	Yes	Yes ^f
POTWs with Sanitary Sewer Systems (SSSs) ^e	Yes ^a	Yes	Yes ^f
TWTDSs	Yes ^a	Yes	Yes ^f
POTW NPDES Report Filers			
Biosolids/Sewage Sludge Report Filers	No	Yes	Yes
Pretreatment Program Report Filers	No	Yes	Yes
Sewer Overflow/Bypass Event Report Filers ^g	Yes ^a	Yes	Yes

^a Only general permit covered facilities

^b These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.

^c The analysis assumes that a small percentage of construction stormwater regulated entities have DMR requirements due to an enforcement action.

^d Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s and nonmajors.

^e The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs.

^f All POTWs and TWTDSs file one or more program reports, as shown under the section for POTW NPDES program report filers.

^g These POTWs and TWTDSs also have the potential for bypass events and the related noncompliance reporting, which will be done electronically under this rule.

1.5 Organization of the Report

This report examines the burden, costs, and savings to regulated entities, authorized NPDES programs, and EPA associated with the final rule. The remainder of this report is organized as follows:

- **Section 2:** Characterizes the permitted facility universe and the frequency of reporting.
- **Section 3:** Presents the regulated entity, authorized NPDES program and EPA activities that will be affected by the final rule.
- **Section 4:** Estimates the total burden and savings associated with the final rule.
- **Section 5:** Analyzes the impacts of the final rule on small entities.
- **Section 6:** Presents the benefits of the final rule.
- **Section 7:** Presents additional analyses conducted for the final rule.

Section 2. – Estimating the Permit Universe and Required Data Reporting/Submittal

2.1 Introduction

Estimating the burden and cost associated with the final rule requires knowledge of: 1) the universe of permit types affected by the rule; as well as, 2) the required changes in the data flows between regulated entities and their authorized NPDES program and between authorized NPDES programs and EPA. These inputs are used to generate burden and cost estimates in Section 4, as shown in Figure 2-1. Rule requirements vary depending on the NPDES subprogram and type of permit. To estimate burden and cost, it is necessary to know:

- The entity responsible for generating the required data or data transfer. Some required data will be reported directly to EPA by permitted facilities. Other required data will be submitted to EPA by the authorized NPDES program (Reporting/submittal responsibilities are discussed in more detail in Section 3).
- How frequently the data are reported by the regulated entity or submitted by the authorized NPDES program. Facility reporting and the submittals of the authorized NPDES program are both referred to in terms of an annual reporting frequency. For instance, a report that is submitted every 5 years has an annual reporting frequency of 0.2, whereas a report that is submitted monthly has an annual reporting frequency of 12.

It is important to note that the universe addressed in this economic analysis is somewhat different than the universe discussed in the preamble to the final rule. In this analysis the term “universe” essentially refers to permits, as distinct from facilities or regulated entities. The distinction is significant because it is possible for individual facilities to have multiple permits. In such cases, however, the facility will likely not be required to submit the same information twice (two permits requiring the same report). It is possible for a single regulated entity to make submissions for multiple permits. This is particularly true, for example, in the construction sector, where individual firms typically manage multiple sites with construction stormwater permits.

Figure 2-1: Inputs to Burden and Cost Estimates



2.1.1 Types of NPDES Permits

NPDES permits are issued to major and nonmajor facilities in the form of individual permits or general permits. Permit types are described in detail in Section 1. Permit types are summarized by subprogram in Table 2-1 (see Section 2.1.2 for a description of subprograms). Permit requirements may vary between individual and general permits, and between major and nonmajor facilities. For example, most individual major municipal stormwater regulated entities are required to submit discharge monitoring reports (DMRs) on a monthly basis whereas individual nonmajor municipal stormwater regulated entities generally do not. The cost analysis accounts for

the differences between major and nonmajor permits and between individual and general permits as described in the Sections 2.2 through 2.12.

Table 2-1: NPDES Regulated Entities and NPDES Permit Types by Subprogram				
NPDES Subprogram	NPDES Individual Majors	NPDES Individual Nonmajors	NPDES General Nonmajors	Other Mechanism
Non-POTWs (Industrial, Agriculture, and Stormwater)				
Standard Industrial Dischargers (may also file CWA §316(b) data)	✓	✓	✓	
CWA §316(b) Filers ^a	✓			
Significant Industrial Users (SIUs)^b				
SIUs in Municipalities with Pretreatment Program				✓
SIUs in Municipalities without Pretreatment Program				✓
Concentrated Animal Feeding Operations (CAFOs) ^c		✓	✓	
Industrial and Construction Stormwater				
Industrial	✓	✓	✓	
Construction	✓	✓	✓	
Municipal Stormwater^d				
Phase I municipal separate storm sewer systems (MS4s)	✓		✓	
Phase II MS4s		✓	✓	
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)				
POTWs with Combined Sewer Systems (CSSs) ^e	✓	✓	✓	
POTWs with Sanitary Sewer Systems (SSSs) ^e	✓	✓	✓	
TWTDSs	✓	✓	✓	
POTW NPDES Report Filers				
Biosolids/Sewage Sludge Report Filers ^f	✓	✓		
Pretreatment Program Report Filers ^f	✓	✓		
Sewer Overflow/Bypass Event Report Filers ^g	✓	✓	✓	
^a CWA §316(b) filers are a subset of standard industrial dischargers; most are classified as majors. ^b These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule. ^c Most CAFOs are classified as nonmajors. ^d Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s and nonmajors. ^e The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs. ^f Biosolids/sewage sludge and pretreatment program report filers are a subset of POTWs and TWTDSs; most have individual NPDES permits. ^g These POTWs and TWTDSs also have the potential for bypass events and the related noncompliance reporting, which will be done electronically under this rule.				

2.1.2 NPDES Subprograms

Permit requirements vary according to which subprogram(s) are applicable to a facility's operations. These reporting requirements vary by permit type and subprogram, as presented in Table 2-2 below.

Table 2-2: Electronic Reporting Requirements by NPDES Subprogram			
NPDES Subprogram	General Permit Reports	DMR	Program Reports
Non-POTWs (Industrial, Agriculture, and Stormwater)			
Standard Industrial Dischargers (may also file CWA §316(b) data)	Yes ^a	Yes	No
CWA §316(b) Filers	No	Yes	Yes
Significant Industrial Users (SIUs)^b			
SIUs in Municipalities with Pretreatment Program	No	No	No
SIUs in Municipalities without Pretreatment Program	No	No	Yes
Concentrated Animal Feeding Operations (CAFOs)	Yes ^a	Yes	Yes
Industrial and Construction Stormwater			
Industrial	Yes ^a	Yes	No
Construction	Yes ^a	Yes ^c	No
Municipal Stormwater^d			
Phase I municipal separate storm sewer systems (MS4s)	Yes ^a	Yes	Yes
Phase II MS4s	Yes ^a	No	Yes
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)			
POTWs with Combined Sewer Systems (CSSs) ^e	Yes ^a	Yes	Yes ^f
POTWs with Sanitary Sewer Systems (SSSs) ^e	Yes ^a	Yes	Yes ^f
TWTDSs	Yes ^a	Yes	Yes ^f
POTW NPDES Report Filers			
Biosolids/Sewage Sludge Report Filers	No	Yes	Yes
Pretreatment Program Report Filers	No	Yes	Yes
Sewer Overflow/Bypass Event Report Filers ^g	Yes ^a	Yes	Yes

^a Only general permit covered facilities

^b These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.

^c The analysis assumes that a small percentage of construction stormwater regulated entities have DMR requirements due to an enforcement action.

^d Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s and nonmajors.

^e The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs.

^f All POTWs and TWTDSs file one or more program reports, as shown under the section for POTW NPDES program report filers.

^g These POTWs and TWTDSs also have the potential for bypass events and the related noncompliance reporting, which will be done electronically under this rule.

Industrial, Agriculture, and Stormwater Facilities

- Standard Industrial Dischargers:** This group includes industrial facilities that discharge directly to a surface water and have an NPDES permit. These facilities can be classified as majors or nonmajors and may have coverage under individual or general NPDES permits. Facilities with coverage under a general permit will submit one or more general permit reports (e.g., NOIs, NOTs). Most of these facilities also submit DMRs on a regular frequency.
- CWA §316(b) Filers:** This group is a subset of standard industrial dischargers. Most are classified as majors. These facilities have additional permit data elements related to cooling water intakes and/or thermal variances. Some of these facilities also submit CWA §316(b) Annual Reports.
- Concentrated Animal Feeding Operations (CAFOs):** This group is the set of CAFOs that have an NPDES permit. Most of these facilities are classified as nonmajors and most are covered under general NPDES permits. Facilities with coverage under a general permit will submit one or more general permit reports (e.g., NOIs, NOTs). A few but not

many of these facilities also submit DMRs irregularly (e.g., unanticipated discharges due to large storm events).¹⁹ These facilities will also submit CAFO Annual Program Reports.

- **Industrial and Construction Stormwater:** This group includes industrial facilities that discharge industrial or construction stormwater directly to a surface water and have a NPDES permit. Facilities with coverage under a general permit will submit one or more general permit reports (e.g., NOIs, NOTs, NECs, and LEWs). Some industrial stormwater facilities (e.g., those regulated by EPA's Multi-Sector General Permit) submit DMRs on a regular frequency. Most construction stormwater facilities are not required to submit DMRs. The analysis assumes, however, that a small percentage of construction stormwater regulated entities have DMR requirements due to an enforcement action.
- **Municipal Stormwater:** This group includes municipalities that discharge urban stormwater under the Municipal Separate Storm Sewer System (MS4) program. Facilities with coverage under a general permit will submit one or more general permit reports (e.g., NOIs, NOTs, NECs, and LEWs). Most of the facilities classified as majors submit DMRs on a regular frequency. Municipalities that discharge urban stormwater under the MS4 program also submit an MS4 Program Report. Facilities classified as large and medium MS4s submit these reports on an annual basis and facilities classified as small MS4s submit these reports twice per five year permit term.
- **Significant Industrial Users (SIUs):** These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without approved pretreatment programs (i.e., where EPA or the authorized state is the control authority) would report electronically under the rule. This means that these facilities do not have NPDES permits but do have a control mechanism that is issued by the control authority (State or EPA). These facilities will submit periodic reports on continued compliance on a bi-annual frequency to their control authority {i.e., periodic reports on continued compliance for CIUs [40 CFR 403.12(e)] and periodic reports on continued compliance for non-CIUs [40 CFR 403.12(h)]}.

POTWs and TWTDSs

POTWs and TWTDSs have multiple reporting requirements and are broken out separately in this analysis. Additionally, this analysis separates POTWs by their collection system type: Combined Sewer Systems (CSSs) and Sanitary Sewer Systems (SSSs). This break out helps to properly identify the burden associated with reporting sewer overflows (which include bypass events). POTWs and TWTDSs that discharge directly to a surface water have NPDES permits. These facilities can be classified as majors or nonmajors and may have coverage under individual or general NPDES permits. Facilities with coverage under a general permit will submit one or more general permit reports (e.g., NOIs, NOTs). Most of these facilities also submit DMRs on a regular frequency. POTWs and TWTDSs may submit the following compliance monitoring data to their authorized NPDES program.

¹⁹ The analysis does not account for DMR submission by this small number of CAFOs, which is a conservative assumption because the switch to electronic submission of DMRs results in a net cost savings.

- **Biosolids/Sewage Sludge:** EPA’s sewage sludge regulations (40 CFR 503) require certain POTWs to submit an annual biosolids/sewage sludge report to the authorized state or EPA region. POTWs that must submit an annual report include POTWs with a design flow rate equal to or greater than one million gallons per day, POTWs that serve 10,000 people or more, and Class I sewage sludge management facilities. In general, Class I sewage sludge management facilities must report annually to the authorized NPDES program biosolids monitoring data, quantity of biosolids managed, ultimate end use or disposal of the biosolids, end use or disposal location(s), and vector and pathogen reduction measures.
- **Pretreatment:** EPA has developed a comprehensive pretreatment program implemented through EPA Regions, state, tribes, territories, and POTWs to control industrial discharges of pollutants that might pass through or interfere with POTW treatment processes or contaminate sewage sludge, thereby posing a threat to human health or the environment. POTWs with approved pretreatment programs are required to submit to their approval authority (State or EPA) an annual report summarizing basic program information and implementation activities.
- **Sewer Overflow/Bypass Event Reports - Combined Sewer Systems:** POTWs that have combined sewer systems (CSS) are designed to have combined sewer overflows (CSOs). CSO discharges from CSO permitted outfalls (dry or wet-weather) that constitute noncompliance are required to be reported under 40 CFR 122.41(l)(6) and (7). CSO discharges from CSO permitted outfalls (wet-weather) that do not result in noncompliance can be reported on DMRs [40 CFR 122.41(l)(4)(i)] at the frequency identified by the permit, and are subject to public notification requirements, one of the nine minimum measures under the CSO Control Policy. However, one of the nine minimum measures is to prohibit CSO discharges during dry weather. Therefore, EPA regulations require that these and other noncompliance events must be reported under 40 CFR 122.41(l)(6) and (7). For this analysis, this sector also includes bypass events occurring at CSSs.
- **Sewer Overflow/Bypass Event Reports - Sanitary Sewer Systems:** POTWs and TWTDSs with separate sanitary sewer systems, unlike combined sewer systems, are designed to carry only domestic sewage. Sanitary sewer overflows (SSOs) are generally unplanned and can occur anywhere in a collection system, although generally they are due to excessive infiltration and inflow during and following wet weather events. SSOs, including those that do not reach waters of the United States, may be indicative of improper operation and maintenance of the sewer system and thus may violate NPDES permit conditions requiring proper operation and maintenance [40 CFR 122.41(e)]. These noncompliance events are required to be reported to the NPDES authorized NPDES program in compliance with EPA’s standard permit conditions [40 CFR 122.41(l)(6) and (7)]. POTWs must provide an oral report within 24 hours for any overflow event that “may endanger health or the environment” and follow-up the oral report with a “written submission” within 5 days of the permittee’s discovery of the overflow event [see 40 CFR 122.41(l)(6)]. All other overflows are required to be reported by the permittee with the next regularly scheduled monitoring report [40 CFR 122.41(l)(7)].

The recipient of these compliance monitoring data depends on the NPDES authorization status of the state, tribe, or territory. For example, a POTW may send its DMRs to the state if it is authorized to implement the NPDES core program for municipal and industrial facilities and its

Pretreatment Program Annual Report to an EPA Region if the state is not authorized to administer the pretreatment program.

2.1.3 Required Data

As noted in Section 1, data that regulated entities and authorized NPDES programs are required to submit is defined in existing CWA regulations. To facilitate understanding of the final rule, all of those existing data requirements are consolidated in Appendix A. These data are categorized into the data families listed in Table 2-3, which are defined in Section 1. Table 2-3 also indicates whether it is the regulated entity or authorized NPDES program that initiates the data flow that is ultimately entered into ICIS-NPDES. For example, a regulated entity currently “initiates” a data flow by reporting their DMR information to the authorized NPDES program, which then submits the required data to ICIS-NPDES.

Table 2-3: Required Data Families and Entity Initiating Reporting/Submittal Activity		
	Regulated Entity Initiates Activity	Authorized NPDES Program Initiates Activity
Permits	✓	
Limits		✓
Limit Sets		✓
Discharge Monitoring Reports (DMRs)	✓	
Program Reports	✓	
Compliance Monitoring		✓
Violations		✓
Enforcement Actions		✓

Note that only data elements associated with a related permit type and subprogram will be entered in any particular submission. For example, program report data elements will not be entered for industrial and construction stormwater permits because these facilities are not required to file program reports. Additionally, some data elements are specific to only one subprogram, such as data elements required to be entered for CAFO program reports.

2.1.4 Organization of this Section

Sections 2.2 through 2.11 present details regarding the universe of regulated entities, permit types (e.g., major individual), and annual reporting frequencies for each data family in each subprogram’s data flow. For each subprogram, the number of permits by permit type is based on information available in EPA data systems or other relevant sources. The annual reporting frequency estimation methods and information sources for each data family are presented as well. Section 2.12 provides a summary of the permit universe and annual frequencies across all subprograms and permit types.

2.2 Standard Industrial Dischargers and CWA §316(b) Filers

Standard industrial direct dischargers include industrial facilities that discharge to surface water. These facilities have been regulated since the inception of the NPDES Program. Some of these facilities also have reporting requirements under CWA §316(b).

2.2.1 Permit Universe

Major and Nonmajor Individual Permits

The number of major and nonmajor facilities operating under individual permits was estimated by querying ICIS-NPDES (the Office of Water's system of record) for active major and nonmajor standard industrial dischargers as of May 2015.

Nonmajor General Permits

EPA and state authorized NPDES programs may issue general permits for standard industrial direct dischargers. The number of facilities covered under general permits is based on the Office of Water's system of record as of May 2015. The number of permits shown in this category also includes entities covered under EPA's Vessels General Permit and Pesticides General Permit. These entities are already reporting electronically and, therefore, have no additional reporting requirements. However, they would bear some implementation costs for registration in electronic reporting systems, as discussed in Section 4.4.1. The number of entities covered under the Vessels General Permit and Pesticides General Permit is based on data provided by the Office of Water in March 2015 (Chan, 2015; Faulk, 2015).

General permits with no reporting requirements (such as residential septic systems) were excluded from the analysis because they are not affected by the rule; this category also excludes general permits covered under other subprogram analyses (e.g., CAFOs) to avoid double counting costs and cost savings.

CWA §316(b) Filers

Under the final rule, EPA will require that certain permit data elements relating to cooling water intakes and thermal variances be reported electronically to ICIS-NPDES for major regulated entities. It also will require electronic reporting of CWA §316(b) Annual Reports. Affected facilities are typically industrial facilities or power plants that use large volumes of cooling water from lakes, rivers, estuaries, or oceans. Because information specific to these facilities will need to be reported, it was necessary to separately characterize the universe of NPDES regulated entities with cooling water intakes or thermal variances, and the subset of those that must file CWA §316(b) Annual Reports. It was assumed that these facilities are a subset of the universe of standard industrial dischargers and that all of them are major dischargers.

The NPDES Amendment of Final Regulations Addressing Cooling Water Intake Structures for New Facilities Federal Register Notice (67 FR 78947, December 26, 2002) provides a list of SIC and NAICS codes of entities likely to use cooling water intake structures to withdraw water from waters of the U.S. and that have or require a NPDES permit. To construct the universe of major permits for which cooling water intake data elements will need to be reported, ICIS-NPDES and PCS were queried for active major permits within these SIC and NAICS codes. The number of active major permits obtained from ICIS-NPDES and PCS was used as the count of regulated entities, as of 2011, for which cooling water intake data elements must be reported.

The number of regulated entities for which thermal variance data elements must be reported was estimated by assuming that approximately 47% of cooling water intake facilities have thermal variances, based on information provided by EPA's Office of Water, using national estimates from EPA's 316(b) proposed rule. The distribution of thermal variances was estimated at the state level using the distribution of cooling water intake facilities.

The Fish and Wildlife and National Marine Fisheries Services' joint Biological Opinion on EPA's 316(b) final rule estimated that 153 facilities overlap with designated critical habitat.²⁰ While not all of these facilities will have to submit CWA §316(b) Annual Reports, there will be other facilities in the range of threatened and endangered species habitats that will have to submit CWA §316(b) Annual Reports. To account for the additional facilities, the analysis rounds up the number of facilities submitting CWA §316(b) Annual Reports to 200. The distribution of facilities submitting CWA §316(b) Annual Reports was estimated at the state level using the distribution of cooling water intake facilities.

2.2.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual reporting frequencies described in this section apply to individual major, individual nonmajor and general nonmajor standard industrial dischargers.

Permits

Permit data must be entered into ICIS-NPDES for standard industrial dischargers. Permit data are entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. The same annual reporting frequency is used for cooling water intake and thermal variance permit data elements.

In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets for Major and Nonmajor Individual Permits

All individual standard industrial dischargers must have limits and limit sets data entered into ICIS-NPDES. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2.

Limits and Limit Sets for Nonmajor General Permits

Limits and limit sets for nonmajor general standard industrial dischargers are set in the master permit, such that these data elements need not be entered for each regulated entity. Therefore, limits and limit sets have an annual reporting frequency of 0 for nonmajor general facilities.

DMRs

Most permits with DMR requirements must submit DMRs on a monthly basis. Therefore, DMRs have an annual reporting frequency of 12. The analysis assumes that all individual permits (both major and nonmajor) and 90% of general permits for standard industrial dischargers must submit DMRs.

Program Reports

The subset of facilities that submit CWA §316(b) Annual Reports do so annually. Therefore, the annual reporting frequency for program reports data is 1.

²⁰ <http://water.epa.gov/lawsregs/lawguidance/cwa/316b/upload/Final-316b-Biological-Opinion-and-Appendices-May-19-2014.pdf>

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's Enforcement and Compliance History Online (ECHO) State Water Dashboard.²¹ According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for standard industrial dischargers (0.56 for major individual permits, 0.26 for nonmajor individual permits, and 0.07 for nonmajor general permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for standard industrial dischargers and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual permits and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs.

Enforcement Actions

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for standard industrial dischargers and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.2.3 Summary

Table 2-4 summarizes the number of standard industrial dischargers, the subset of CWA §316(b) filers, and the annual frequencies for each required data family.

²¹ <http://echo.epa.gov/trends/comparative-maps-dashboards/state-water-dashboard?state=National&view=activity>

Table 2-4: Standard Industrial Discharger and CWA §316(b) Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
Standard Industrial Dischargers	1,683	18,993	118,073 ^a
CWA §316(b) Filers			
Permits with Cooling Water Intake Data	1,171	0	0
Permits with Thermal Variance Data	554	0	0
Facilities Submitting CWA §316(b) Annual Reports	200	0	0
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^b	0.2	0.2	0.2
Limits	0.2	0.2	0.0
Limit Sets	0.2	0.2	0.0
DMRs	12.0	12.0	12.0
Program Reports	1 ^c	0	0
Compliance Monitoring	0.56	0.26	0.07
Violations ^d	0.67	0.53	0.53
Enforcement Actions	0.30	0.19	0.19
^a Includes 9,125 pesticide applicators and 63,000 vessels that are already filing electronically. ^b In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1. ^c Applies only to the subset of facilities submitting CWA §316(b) Annual Reports. ^d In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.			

2.3 Significant Industrial Users (SIUs)

As discussed in Section 2.11, most POTWs receive wastewater from industrial users. These industrial facilities are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.

2.3.1 Permit Universe

Both the total number of SIUs in municipalities with approved pretreatment programs and the number of SIUs in each state in municipalities without approved pretreatment programs was estimated by EPA based on available data from permitting authorities. Only the latter group (i.e., SIUs where EPA or the authorized State is the control authority) would report electronically under the rule. This includes all SIUs in Connecticut, Vermont, Alabama, Mississippi, and Nebraska, because these states exclusively oversee SIU compliance and oversight activities instead of requiring their POTWs to develop their own legal authority and procedures, as described in 40 CFR 403.10(e).

2.3.2 Annual Reporting Frequency by Data Family

Under the rule, the only reporting requirement applicable to SIUs is the submission of compliance reports to the applicable authorized NPDES programs. This report is bi-annual; therefore the annual reporting frequency for program reports is 2.

2.3.3 Summary

Table 2-5 summarizes the number of SIU regulated entities and the annual frequencies for each required data family.

Table 2-5: Significant Industrial User (SIU) Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors^a	General Nonmajors
SIUs in Municipalities with Pretreatment Program	0	29,060	0
SIUs in Municipalities without Pretreatment Program	0	2,487	0
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits	n/a	n/a	n/a
Limits	n/a	n/a	n/a
Limit Sets	n/a	n/a	n/a
DMRs	n/a	n/a	n/a
Program Reports	n/a	2 ^b	n/a
Compliance Monitoring	n/a	n/a	n/a
Violations	n/a	n/a	n/a
Enforcement Actions	n/a	n/a	n/a
^a These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule. ^b The rule requires electronic submission of the bi-annual compliance report only for SIUs in municipalities without pretreatment programs.			

2.4 Concentrated Animal Feeding Operations (CAFOs)

A Concentrated Animal Feeding Operation (CAFO) is an agricultural operation where a large number of animals are kept and raised in confined situations, and is defined based on the number of animals at the facility. Animal waste and wastewater from CAFOs can enter water bodies from spills or breaks of waste storage structures. CAFOs are classified as point sources and are regulated under NPDES.

2.4.1 Permit Universe

Major Individual Permits

By definition, there are no major CAFO permits.

Nonmajor Individual and General Permits

Estimates of the number of CAFOs were provided by the Office of Water (OW) based on EPA's NPDES CAFO status report.²² According to these data, there are approximately 6,600 CAFOs with NPDES permits. Estimates of the number of CAFOs per state were provided by OW; however the distribution between nonmajor individuals and nonmajor generals was unknown. A query of ICIS revealed 386 individual permit covered CAFO facilities and 1,613 general permit covered CAFO facilities (Hudock, 2010). This ratio (386/1,613) was used to apportion OW's state-level estimates between individual and general permits.

2.4.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual reporting frequencies described in this section apply to both individual and general permit covered CAFO facilities.

Permits

Permit data elements will be entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional

²² <http://www.epa.gov/npdes/pubs/tracksum%20endyear2013.pdf>

data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets

Limits and limit sets are required for facilities that submit DMRs. CAFOs are generally not required to submit DMRs and so are not required to have the limits and limit sets data families entered into ICIS-NPDES. The annual reporting frequency for limits and limit sets is therefore 0.

DMRs

DMRs are generally not required for CAFOs; therefore the annual reporting frequency is zero.

Program Reports

CAFOs have an annual program report requirement, therefore the annual reporting frequency for program reports data is 1.

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's ECHO State Water Dashboard. According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for CAFOs (0.26 for nonmajor individual permits and 0.07 for nonmajor general permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for CAFOs and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities (e.g., through CAFO annual reports) and, thus, will not require data entry by the authorized NPDES program.

Enforcement Actions

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of

nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for CAFOs and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.19 for nonmajor individual and general permits).

2.4.3 Summary

Table 2-6 summarizes the number of CAFO regulated entities and the annual frequencies for each required data family.

Table 2-6: CAFOs Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
Concentrated Animal Feeding Operations	0	1,266	5,291
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^a	n/a	0.2	0.2
Limits	n/a	0.0	0.0
Limit Sets	n/a	0.0	0.0
DMRs	n/a	0.0	0.0
Program Reports	n/a	1	1
Compliance Monitoring	n/a	0.3	0.1
Violations ^b	n/a	0.5	0.5
Enforcement Actions	n/a	0.2	0.2
^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1. ^b In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.			

2.5 Industrial Stormwater

Industrial stormwater permits are for discharges from sites where material is stored or handled outside and therefore can pollute stormwater runoff.

2.5.1 Permit Universe

Major and Nonmajor Individual Permits

The number of industrial stormwater individual permits in each state was estimated using data downloaded from ECHO in May 2015. Because the ECHO data are believed to be incomplete for this subprogram, authorized states that reported no industrial stormwater permits were assigned national average numbers (two major individual permits and nine nonmajor individual permits).

Nonmajor General Permits

The number of facilities covered by industrial stormwater general permits (a.k.a., multi-sector general permits) was obtained from EPA's Office of Water based on data as of mid-fiscal year 2015. The Office of Water data for Regions 2 and 8, however, included individual permits. Therefore, to avoid double counting, for states and territories in these EPA Regions, the analysis subtracted the number of individual permits (estimated as discussed above) from the reported total number of industrial stormwater permits.

Note that facilities conducting certain categories of industrial activity may file NECs in place of NOIs if their industrial materials and operations are not exposed to stormwater. The analysis

accounts for data associated with NECs as discussed in Section 2.5.2 under Permit Data for General Permits.

2.5.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to major individual, nonmajor individual, and nonmajor general stormwater permits.

Permit Data for Major and Nonmajor Individual Permits

Permit data elements for individually permitted industrial stormwater facilities will be entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Permit Data for General Permits

Permit data elements are entered for industrial facilities filing NECs, as well as for facilities applying for NOIs. Data from EPA's NOI search tool from states with well-populated data was used to estimate the number of new multi-sector general permit NOIs filed each year. The annual reporting frequency for permit data elements was estimated by combining the percentages of the MSGP universe filing those documents annually, as follows:

1. Querying EPA NOI search tool for all multi-sector general permit NOIs filed by year over the past five years by state.
2. Limiting data to just those states that are well populated with NOIs.
3. Estimating average number of NOIs for each state.
4. Summing #3 across states.
5. Dividing the result of #4 by the estimate of the total universe for the same time period (9%).
6. Querying EPA NOI search tool for all no exposure certifications filed in 2009.
7. Dividing number of no exposure certifications filed in 2009 by the number of multi-sector general permit NOIs to obtain the percentage of the total universe filing no exposure certifications in one year (9%).
8. Summing the percentage of the total universe filing NOIs in one year (9%) and the percentage of the total universe filing no exposure certifications in one year (9%) to obtain the percentage of the total universe for which permit data elements must be entered in one year (18%).

The percentage calculated in step #8 represents the annual reporting frequency for permit data. The estimated annual reporting frequency for permit data elements for facilities covered under industrial stormwater general permits is 0.18.

EPA also accounted for facilities that terminate operations and need to submit a NOT by assuming that approximately 5% of all facilities with NOIs and NECs would terminate operations per year. Thus, to account for NOTs, EPA increased the count of permit data submissions by 5%.

In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need

to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets for Major and Nonmajor Individual Permits

Individual industrial stormwater permits must have limits and limit sets data entered into ICIS-NPDES. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2.

Limits and Limit Sets for Nonmajor General Permits

Limits and limit sets for multi-sector general permits are set in the master permit, such that these data elements need not be entered for each regulated entity. Therefore, limits and limit sets have an annual reporting frequency of 0 for nonmajor general facilities.

DMRs

DMRs are required for some facilities covered under the EPA-issued multi-sector general permits three times a year. Although state general permit reporting requirements and the requirements of certain individual permits could potentially be different, it is assumed that all industrial stormwater permittees submit DMRs with an annual reporting frequency of 3.

Program Reports

Program reports are not required for industrial stormwater facilities under the final rule, and therefore the annual reporting frequency is zero. Note, certain permits may require program reports but such requirements are permit-specific and not associated with requirements under the rule.

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's ECHO State Water Dashboard. According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for stormwater facilities (0.56 for major individual permits, 0.26 for nonmajor individual permits, and 0.07 for nonmajor general permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for stormwater facilities and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012

through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities and, thus, will not require data entry by the authorized NPDES program.

Enforcement Actions

According to EPA’s ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for stormwater facilities and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.5.3 Summary

Table 2-7 summarizes the number of industrial stormwater regulated entities and the annual frequencies for each required data family.

Table 2-7: Industrial Stormwater Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajor
Industrial Stormwater	132	563	92,282
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^a	0.2	0.2	0.18 ^b
Limits	0.2	0.2	0.0
Limit Sets	0.2	0.2	0.0
DMRs	3.0	3.0	3.0
Program Reports	0	0	0
Compliance Monitoring	0.56	0.26	0.07
Violations ^c	0.67	0.53	0.53
Enforcement Actions	0.30	0.19	0.19

^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1.
^b The permit reporting frequency for general nonmajors accounts for facilities filing NECs, as well as NOIs.
^c In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.

2.6 Construction Stormwater

Operators of construction sites that are one acre or larger (including smaller sites that are part of a larger common plan of development) may be required to obtain authorization to discharge stormwater under a NPDES construction stormwater permit.

2.6.1 Permit Universe

Major and Nonmajor Individual Permits

The number of construction stormwater individual permits in each state was estimated using data downloaded from ECHO in May 2015. Because the ECHO data are believed to be incomplete for this subprogram, authorized states that reported no construction stormwater permits were

assigned national average numbers (no major individual permits²³ and 10 nonmajor individual permits).

Nonmajor General Permits

The number of facilities covered by construction stormwater general permits was obtained from EPA's Office of Water based on data as of mid-fiscal year 2015. The Office of Water data for Regions 2 and 8, however, included individual permits. Therefore, to avoid double counting, for states and territories in these EPA Regions, the analysis subtracted the number of individual permits (estimated as discussed above) from the reported total number of construction stormwater permits.

Note that small construction facilities may file LEW certifications in place of NOIs if the site has a low predicted rainfall and the rainfall erosivity factor (R factor) is less than 5 during the period of construction activity. EPA regulations also permit other waivers from stormwater controls. See 40 CFR 122.26(b)(15). The analysis accounts for data associated with LEWs as discussed in Section 2.6.2 under Permit Data for General Permits.

2.6.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to major individual, nonmajor individual, and nonmajor general stormwater permits.

Permit Data for Major and Nonmajor Individual Permits

Permit data elements for individually permitted construction stormwater facilities will be entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Permit Data for General Permits

Permit data elements are entered for construction facilities filing LEWs, as well as for facilities filing NOIs. Data from EPA's NOI search tool from states with well-populated data was used to determine the number of NOIs received annually. The annual reporting frequency for permit data elements was estimated by combining the percentages of the construction general permit universe filing NOIs and low erosivity waivers annually, as follows:

1. Querying EPA NOI search tool for all construction general permit NOIs filed by year over the past five years by state.
2. Limiting data to just those states that are well populated with NOIs.
3. Estimating the average number of NOIs annually.
4. Summing #3 across states.
5. Dividing the result of #4 by the estimate of the total universe (16%).
6. Querying EPA NOI search tool for all low erosivity waivers filed in 2009.
7. Dividing number of low erosivity waivers filed in 2009 by the number of construction general permit NOIs to obtain the percentage of the universe filing low erosivity waivers in one year (1%).

²³ The single major individual construction stormwater permit shown in Table 2-8 was identified in the ECHO data; it did not result from this extrapolation.

8. Summing the percentage of the total universe of construction sites filing NOIs in one year (16%) and the percentage of the total universe filing low erosivity waivers in one year (1%) to obtain the percentage of the total universe for which permit data elements must be entered in one year (17%).

The percentage calculated in step #8 represents the annual reporting frequency for permit data. The estimated annual reporting frequency for permit data elements for facilities covered under the construction general permits is 0.17.

EPA also accounted for facilities that terminate operations and need to submit a NOT by assuming that approximately 20% of all facilities with NOIs and LEWs would terminate operations per year. Thus, to account for NOTs, EPA increased the count of permit data submissions by 20%.

In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits, Limit Sets, and DMRs

Limits and limit sets are required for facilities that submit DMRs. DMRs are not required for facilities covered under EPA construction general permits. Although state general permit reporting requirements and the requirements of certain individual permits could potentially be different, it is assumed that 1% of construction stormwater regulated entities have DMR requirements due to an enforcement action. These facilities need to submit DMRs to show they have returned to compliance and are assigned a frequency of 1 for DMRs. Individual permitted facilities will need to have corresponding limits and limit sets entered with the same frequency. Limits and limit sets for general permits are set in the master permit, such that these data elements need not be entered for each regulated entity. Therefore, limits and limit sets have an annual reporting frequency of 0 for nonmajor general facilities.

Program Reports

Program reports are not required for construction stormwater regulated entities under the final rule, and therefore the annual reporting frequency is zero. Note, certain permits may require program reports but such requirements are permit-specific and not associated with requirements under the rule.

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's ECHO State Water Dashboard. According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for stormwater facilities (0.56 for major individual permits, 0.26 for nonmajor individual permits, and 0.07 for nonmajor general permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for stormwater facilities and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual permits and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities and, thus, will not require data entry by the authorized NPDES program. In addition, for construction stormwater facilities, the final rule only requires SEV data when the authorized NPDES program also issues a formal enforcement action against the inspected construction site. To be conservative, however, the analysis assumes SEVs at construction facilities will be accompanied by enforcement actions and includes expanded SEV reporting for construction stormwater facilities.

Enforcement Actions

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for stormwater facilities and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.6.3 Summary

Table 2-8 summarizes the number of construction stormwater regulated entities and the annual frequencies for each required data family.

Table 2-8: Construction Stormwater Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
Construction Stormwater	1	638	243,227
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^a	0.2	0.2	0.17 ^b
Limits ^c	1.0	1.0	0.0
Limit Sets ^c	1.0	1.0	0.0
DMRs ^c	1.0	1.0	1.0
Program Reports	0	0	0
Compliance Monitoring	0.56	0.26	0.07
Violations ^d	0.67	0.53	0.53
Enforcement Actions	0.30	0.19	0.19
^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1. ^b The permit reporting frequency for general nonmajors accounts for facilities filing LEWs, as well as NOIs. ^c The analysis assumes 1% of stormwater construction regulated entities have DMR requirements due to an enforcement action. These facilities need to submit DMRs to show they have returned to compliance and are assigned a frequency of 1 for DMRs and, for individual permits, limits and limit sets. ^d In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This is conservative as expanded SEV reporting is required for construction facilities only when accompanied by a formal enforcement action.			

2.7 Municipal Stormwater

Municipal separate storm sewer systems (MS4s) collect stormwater runoff and are designated as Phase I and Phase II MS4s. The Phase I rule, issued in 1990, requires *medium* and *large* cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. The Phase II rule, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the authorized NPDES program, to obtain NPDES permit coverage for their stormwater discharges.

2.7.1 Permit Universe

By definition, the Phase I MS4s, which include large and medium cities, are the only major facilities in the municipal stormwater program. For the purpose of estimating costs, it was assumed that all Phase II MS4s are nonmajor facilities. EPA's Office of Water supplied a list of Phase I and Phase II MS4 permits as of June 2014. This list was used to count the number of individually permitted municipalities. This list was combined with data from EPA's NPDES General Permit Inventory²⁴ to estimate the number of municipalities covered by the listed MS4 general permits.

2.7.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to major individual, nonmajor individual, and nonmajor general stormwater permits.

Permits

MS4s permit data must be entered into ICIS-NPDES. Permit data are entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be

²⁴ <http://cfpub.epa.gov/npdes/permitissuance/genpermits.cfm>

updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets

Limits and limit sets, where applicable, must be entered in ICIS-NPDES for Phase I MS4 stormwater individual permits. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2. Limits and limit sets for Phase I MS4 stormwater general permits are set in the master permit, such that these data elements need not be entered for each regulated entity. Phase II MS4 stormwater permits are not required to submit DMRs and so are not required to have the limits and limit sets data families entered into ICIS-NPDES. Therefore, limits and limit sets for municipal stormwater permits other than Phase I MS4 individual permits have an annual reporting frequency of 0.

DMRs

Annual reporting frequencies are linked to the requirement that DMRs must be sent on a monthly basis. Therefore, for Phase I MS4s, DMRs have an annual reporting frequency of 12. DMRs are not required for Phase II MS4s. Therefore, for Phase II MS4s, the annual reporting frequency is zero.

Program Reports

Phase I MS4 programs have an annual program report requirement, and therefore the annual reporting frequency is 1. Phase II MS4s are required to send program reports in the second and fourth year of the permit cycle, and therefore the annual reporting frequency is 0.4.

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's ECHO State Water Dashboard. According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for stormwater facilities (0.56 for major individual permits, 0.26 for nonmajor individual permits, and 0.07 for nonmajor general permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for stormwater facilities and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual permits and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012

through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities (e.g., through stormwater annual reports) and, thus, will not require data entry by the authorized NPDES program. In addition, for construction stormwater facilities, the final rule only requires SEV data when the authorized NPDES program also issues a formal enforcement action against the inspected construction site. To be conservative, however, the analysis assumes SEVs at construction facilities will be accompanied by enforcement actions and includes expanded SEV reporting for construction stormwater facilities.

Enforcement Actions

According to EPA’s ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for stormwater facilities and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.7.3 Summary

Table 2-9 summarizes the number of stormwater regulated entities and the annual frequencies for each required data family.

	Individual Majors	Individual Nonmajors	General Nonmajors	
Phase I MS4s	249	0	9	
Phase II MS4s	0	204	5,093	
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency (Phase I MS4s)	Annual Reporting Frequency (Phase II MS4s)
Permits ^a	0.2	0.2	0.20	0.20
Limits	0.2	0	0	0
Limit Sets	0.2	0	0	0
DMRs	12.0	0	12.0	0
Program Reports	1.0	0.4	1.0	0.4
Compliance Monitoring	0.56	0.26	0.07	0.07
Violations ^b	0.67	0.53	0.53	0.53
Enforcement Actions	0.30	0.19	0.19	0.19

^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1.

^b In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.

2.8 Combined Sewer System (CSS) POTWs

Combined sewer systems (CSSs) are sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same collection system. Typically, CSSs transport all of their wastewater to a sewage treatment plant where it is treated and then discharged to a water body. During periods of heavy rainfall or snowmelt the wastewater volume in a combined sewer system can exceed the capacity of the sewer system or treatment plant(s). For this reason, combined sewer systems may be designed to overflow during peak inflow events and discharge excess combined wastewater directly to nearby streams, rivers, or other water bodies. These combined sewer overflows (CSOs) contain not only stormwater but also untreated

human and industrial wastes, toxic materials, and debris. It is assumed that all states with NPDES authorized NPDES program will administer their CSS program. EPA administers the CSS program in the remaining states. POTWs that operate CSS can also have bypass events [40 CFR 122.41(m)] and are also required to report such events when sewage bypasses any portion of a treatment facility.

2.8.1 Permit Universe

The number of POTWs with CSSs in each state was estimated using data downloaded from ECHO in May 2015. The numbers of facilities derived from the ECHO data match numbers shown in the Office of Wastewater Management list of combined sewer systems within 3%. The analysis uses the ECHO data because they are more recent and identify individual major, individual nonmajor, and general permits separately. As discussed in Section 2.9.1, the analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs. This assumption is reasonable since such systems will need to report information on that portion that is a CSS.

2.8.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to both major and nonmajor CSS POTWs.

Permits

CSS permit data must be entered into ICIS-NPDES. Permit data are entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets

All CSS permits must have limits and limit sets data entered into ICIS-NPDES. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2.

DMRs

Annual reporting frequencies are linked to the requirement that DMRs must be sent on a monthly basis. Therefore, DMRs have an annual reporting frequency of 12.

Program Reports

CSSs must submit a program report for every overflow and bypass event. Therefore, the estimated annual reporting frequency for program report data was set as the number of overflow and bypass events divided by the number of CSSs. The number of overflow events and corresponding number of CSSs was taken from EPA's 2004 Report to Congress on sewer overflows.²⁵ The number of bypass events was assumed to be 1,000 per year. Based on this calculation, the estimated annual reporting frequency is 12.51.

²⁵ <http://water.epa.gov/polwaste/npdes/cso/2004-Report-to-Congress.cfm>

Compliance Monitoring

Compliance monitoring information must be entered for every overflow event, according to EPA Compliance Monitoring Strategy. Therefore, the estimated annual reporting frequency for compliance monitoring data was set as the number of overflow events divided by the number of CSSs (taken from the 2004 Report to Congress). Based on this calculation; the estimated annual reporting frequency is 11.22.

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for CSSs and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual permits and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities and, thus, will not require data entry by the authorized NPDES program. For example, sewer overflow events are SEVs and will be self-reported by the permitted CSS as discussed above under program reports.

Enforcement Actions

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for CSSs and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.8.3 Summary

Table 2-10 summarizes the number of CSS POTW regulated entities and the annual frequencies for each required data family.

Table 2-10: CSS POTW Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
POTWs with CSSs	462	244	68
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^a	0.2	0.2	0.2
Limits	0.2	0.2	0.2
Limit Sets	0.2	0.2	0.2
DMRs	12.0	12.0	12.0
Program Reports	12.51	12.51	12.51
Compliance Monitoring	11.22	11.22	11.22
Violations ^b	0.67	0.53	0.53
Enforcement Actions	0.30	0.19	0.19
^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1. ^b In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.			

2.9 Sanitary Sewer System (SSS) POTWs and TWTDSs

Sanitary Sewer Systems (SSSs) are sewers designed to collect and transport all domestic sewage that flows into them to a POTW. Properly designed, operated, and maintained SSSs are designed to prevent overflows. However, occasional unintentional discharges of raw sewage from municipal sanitary sewers occur in almost every system. These types of discharges are called sanitary sewer overflows (SSOs) and they contain untreated human and industrial wastes. It is assumed that all states with NPDES authorized NPDES program will administer their SSS program, and that EPA administers the SSS program in the remaining states. POTWs that operate SSS can also have bypass events [40 CFR 122.41(m)] and are also required to report such events when sewage bypasses any portion of a treatment facility.

2.9.1 Permit Universe

Major and Nonmajor Individual Permits

The total number of POTWs in each state was derived from EPA's Clean Watersheds Needs Survey (specifically, Table I-1).²⁶ The number of POTWs with SSSs was estimated by subtracting the number of POTWs with CSSs (see Section 2.8.1) and assuming, based on data available in ICIS-NPDES, that 27% of POTWs with SSSs are majors and the remaining 73% are nonmajors. This approach divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs. This assumption is reasonable since such systems will need to report information on that portion that is a CSS.

In addition to POTWs, SSO reporting is also required of other treatment works treating domestic sewage (TWTDSs). Because the Clean Watershed Needs Survey does not account for TWTDSs, ICIS-NPDES data for 2015 were queried for non-POTWs with SIC of 4952, which is the applicable industry code for TWTDSs. This query resulted in approximately 8,900 TWTDSs, which were added to the total number of POTW-SSSs. The analysis assumes that 9% of TWTDSs are majors and the remaining 91% are nonmajors, based on data from ECHO.

²⁶ <http://owpubauthor.epa.gov/scitech/datait/databases/cwns/upload/cwns2008rtc.pdf>

Nonmajor General Permits

Note that four states (North Carolina, Ohio, South Carolina, and Wisconsin) issue permits to SSSs under a general permit. In this analysis, it is assumed that all SSS POTW and TWTDS nonmajor permits in these four states are nonmajor general permits (Weiss, 2011).

2.9.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to both major and nonmajor SSS POTWs and TWTDSs.

Permits

SSS POTW permit data must be entered into ICIS-NPDES. Permit data are entered with the permit cycle, once every five years, which translates to an annual reporting frequency of 0.2. In addition, the analysis accounts for additional data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name). It assumes that a small number of permit data elements (e.g., contact name and/or phone number or contact information) will need to be updated with an annual reporting frequency of 0.1, reflecting that such changes might occur for 10% of permitted facilities each year.

Limits and Limit Sets

All SSS POTW permits must have limits and limit sets data entered into ICIS-NPDES. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2.

DMRs

All SSS POTWs must submit DMRs for their permitted dischargers to surface waters. Annual reporting frequencies are linked to the requirement that DMRs must be sent on a monthly basis. Therefore, DMRs have an annual reporting frequency of 12.

Program Reports

SSS POTWs must submit a program report for every overflow and bypass event. Therefore, the estimated annual reporting frequency for program report data elements for these POTWs was set as the number of overflow and bypass events divided by the number of SSSs. The number of overflow events and corresponding number of SSSs was taken from EPA's 2004 Report to Congress on sewer overflows.²⁷ The number of bypass events was assumed to be 2,000 per year. Based on this calculation; the estimated annual reporting frequency is 2.65.

Compliance Monitoring

Compliance monitoring information must be entered for every overflow event, according to the EPA Compliance Monitoring Strategy. Therefore, the estimated annual reporting frequency for compliance monitoring data was set as the number of overflow events divided by the number of SSSs (taken from the 2004 Report to Congress). Based on this calculation; the estimated annual reporting frequency is 2.57.

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data

²⁷ <http://water.epa.gov/polwaste/npdes/cso/2004-Report-to-Congress.cfm>

were not available on violation frequency by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for SSSs and assumes that nonmajor general permit facilities have the same violation frequency as nonmajor individual permit facilities (0.67 for major individual permits and 0.53 for nonmajor individual and general permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA’s ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities and, thus, will not require data entry by the authorized NPDES program. For example, sewer overflow events are SEVs and will be self-reported by the permitted SSS as discussed above under program reports.

Enforcement Actions

According to EPA’s ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions each year. Data were not available on concluded enforcement actions by subprogram or for nonmajor general permit facilities. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for SSSs and assumes that nonmajor general permit facilities have the same concluded enforcement action frequency as nonmajor individual permit facilities (0.30 for major individual permits and 0.19 for nonmajor individual and general permits).

2.9.3 Summary

Table 2-11 summarizes the number of SSS POTW and TWTDS regulated entities and the annual frequencies for each required data family.

Table 2-11: SSS POTW and TWTDS Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
POTWs with SSSs only	3,533	9,197	1,281
TWTDSs	779	7,510	655
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^a	0.2	0.2	0.2
Limits	0.2	0.2	0.2
Limit Sets	0.2	0.2	0.2
DMRs	12.0	12.0	12.0
Program Reports	2.65	2.65	2.65
Compliance Monitoring	2.57	2.57	2.57
Violations ^b	0.67	0.53	0.53
Enforcement Actions	0.30	0.19	0.19
^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1. ^b In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.			

2.10 Biosolids

The biosolids NPDES subprogram applies to those facilities that use or dispose of treated sewage sludge, also referred to as “biosolids.” Biosolids reporting criteria mostly apply to POTWs that ship their biosolids offsite for use as fertilizer, with the addition of some non-POTW facilities that produce and distribute biosolids. Furthermore, while some facilities generate biosolids, they are not required to report to EPA unless they ship the biosolids offsite. Therefore, the biosolids universe used in the analysis only represents those facilities that annually transfer biosolids offsite, which accounts for most biosolids reporting activity.

2.10.1 Permit Universe

Major and Nonmajor Individual Permits

The number of major and nonmajor permits with biosolids reporting requirements was estimated using data from EPA’s Clean Watersheds Needs Survey.²⁸

Nonmajor General Permits

While nonmajor general biosolids permits exist, it was not possible to determine the exact number based on available data. Because the costs would not differ based on the individual versus general permit classification, it was assumed that all biosolids facilities are regulated under individual permits. Therefore, for the purpose of estimating potential costs, the universe of nonmajor general biosolids permits is zero.

2.10.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual reporting frequencies described in this section apply to both major and nonmajor biosolids facilities.

Permits

Biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers regulated under other NPDES programs, such as SSSs. As such, the data entry associated with most permit data elements is included in the analysis of the CSS POTW, SSS POTW, or standard industrial discharger universes.²⁹ However, those permit data elements specific to the biosolids program were assumed to have an annual reporting frequency of 0.2, because they are assumed to be generated on the permit cycle.

Limits and Limit Sets

As stated above, biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers. These facilities do submit DMRs with corresponding limits and limit sets, but the data entry and processing associated with those limits and limit sets are accounted for under the CSS POTW, SSS POTW, or standard industrial discharger universes. Therefore, biosolids facilities have no biosolids specific discharges, which means the frequency for submitting limit and limit set data is zero for this group of facilities.

DMRs

As stated above, biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers. These facilities do submit DMRs, but the data entry and processing associated with those reports

²⁸ <http://owpubauthor.epa.gov/scitech/datait/databases/cwns/upload/cwns2008rtc.pdf>

²⁹ Including data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name).

are accounted for under the CSS POTW, SSS POTW, or standard industrial discharger universes. Biosolids facilities have no biosolids specific discharges, which means the frequency for submitting DMRs is zero for this group of facilities.

Program Reports

Biosolids permits have an annual program report requirement. Therefore, the annual reporting frequency for program reports data is 1.

Compliance Monitoring

As stated above, all biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers. Therefore the violation information associated with these facilities is accounted for under the CSS POTW, SSS POTW, or standard industrial discharger permit universes and, to prevent double counting, the reporting frequency for compliance monitoring is zero.

Violations

As stated above, all biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers. Therefore the violation information associated with these facilities is accounted for under the CSS POTW, SSS POTW, or Standard Industrial Discharger permit universes and, to prevent double counting, the reporting frequency for violations is zero.

Enforcement Actions

As stated above, all biosolids facilities are POTWs, TWTDSs, or standard industrial dischargers. Therefore the violation information associated with these facilities is accounted for under the CSS POTW, SSS POTW, or standard industrial discharger permit universes and, to prevent double counting, the reporting frequency for enforcement actions is zero.



EPA Region 7 Annual Biosolids Reports (2014)

2.10.3 Summary

Table 2-12 summarizes the number of regulated entities required to file biosolids/sewage sludge data and the annual frequencies for each required data family.

Table 2-12: Biosolids Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
Biosolids/Sewage Sludge Report Filers	4,209	694	0
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits	0.2a	0.2a	n/a
Limits	0.0	0.0	n/a
Limit Sets	0.0	0.0	n/a
DMRs	0.0	0.0	n/a
Program Reports	1	1	n/a
Compliance Monitoring	0.0	0.0	n/a
Violations	0.0	0.0	n/a
Enforcement Actions	0.0	0.0	n/a

^a Annual reporting frequency applies only to those permit data elements specific to the biosolids program. All other permit data elements are captured by CSS POTWs, SSS POTWs, TWTDSs, or standard industrial dischargers.

2.11 Pretreatment

POTWs collect wastewater from homes, commercial buildings, and industrial facilities and transport it via a sewer collection system, to the treatment plant. At the treatment plant, the POTW removes harmful organisms and other contaminants from the sewage so it can be discharged safely into the receiving stream. Generally, POTWs are designed to treat domestic sewage; however, most POTWs also receive wastewater from industrial users. The General Pretreatment Regulations establish responsibilities of the POTW to develop and implement local limits for industrial users (IUs)/dischargers to the sewer system to control pollutants that may pass through or interfere with POTW treatment processes or that may contaminate sewage sludge. States may issue IU permits even though the IU discharges to the sewer collection system for further treatment at the POTW. POTWs with approved pretreatment programs must administer a local program covering IUs and report to their authorized NPDES program regarding the administration of their pretreatment program.

2.11.1 Permit Universe

Major and Nonmajor Individual Permits

The total number of approved pretreatment programs in each state was estimated by EPA based on available data from permitting authorities. These data did not distinguish between major and nonmajor permit holders. Data available in ICIS-NPDES, however suggests that 93% of POTWs with a pretreatment program are majors and the remaining 7% are nonmajors. Note that no POTWs file pretreatment program data in Connecticut, Vermont, Alabama, Mississippi, and Nebraska, because these states exclusively oversee SIU compliance and oversight activities instead of requiring their POTWs to develop their own legal authority and procedures, as described in 40 CFR 403.10(e).

Nonmajor General Permits

There are no general permits for nonmajor POTWs with approved pretreatment programs. Therefore, the universe for this category is zero.

2.11.2 Annual Reporting Frequency by Data Family

Except where stated otherwise, the annual frequencies described in this section apply to both major and nonmajor pretreatment permits.

Permits

As pretreatment facilities are a subset of POTWs, the data entry associated with most permit data elements is included in the analysis of the CSS or SSS POTWs.³⁰ However, those permit data elements specific to the pretreatment program were assumed to have an annual reporting frequency of 0.2, because they are assumed to be generated on the permit cycle.

Limits and Limit Sets

All pretreatment permits must have limits and limit sets data entered into ICIS-NPDES. Limits and limit sets change according to the permit cycle, and therefore have an annual reporting frequency of 0.2.

³⁰ Including data entry associated with minor changes at the permitted facility (e.g., change in owner or operator name).

DMRs

Annual reporting frequencies are linked to the requirement that DMRs must be sent on a monthly basis. Therefore, DMRs have an annual reporting frequency of 12.

Program Reports

Pretreatment programs have an annual program report requirement; therefore the annual reporting frequency for program reports is 1. Note that, in addition to applying to regulated POTWs with approved pretreatment programs, the program report requirement also applies to 36 states that are authorized to administer the pretreatment program and to nine EPA regions (covering the 14 states that are not authorized for the pretreatment program). Under existing reporting requirements, these states and regions submit an annual pretreatment program report covering industrial user discharges in municipalities without an approved pretreatment program (i.e., where the state or region is the Control Authority, instead of an approved POTW). The analysis includes the cost and cost savings associated with electronic submission of pretreatment program reports from states and regions, in addition to pretreatment program reports from approved POTWs.



EPA Region 9 Annual Pretreatment Reports (2009)

Compliance Monitoring

The annual frequency of compliance monitoring reports was estimated using data from EPA's ECHO State Water Dashboard. According to the ECHO data, on average over the last three fiscal years (2012 through 2014) approximately 56% of major individual permit facilities, 26% of nonmajor individual permit facilities, and 7% of nonmajor general permit facilities underwent inspections each year. Data were not available on inspection frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for compliance monitoring for pretreatment facilities (0.56 for major individual permits and 0.26 for nonmajor individual permits).

Violations

According to EPA's ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 67% of major individual permit facilities and 53% of nonmajor individual permit facilities had at least one instance of non-compliance each year. Data were not available on violation frequency by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for violations for pretreatment (0.67 for major individual permits and 0.53 for nonmajor individual permits).

In general, EPA has expected authorized NPDES programs to share Single Event Violation (SEV) data on facilities defined as majors. Because the final rule also provides for entry of SEV data on nonmajor facilities, the analysis includes reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09. This annual frequency is based on data from EPA's ECHO State Water Dashboard, which show that on average over the last three fiscal years (2012 through 2014) approximately 9% of major individual permit facilities had SEVs. This frequency may be an overestimate because some SEVs will be self-reported by the permitted facilities (e.g.,

through pretreatment annual reports) and, thus, will not require data entry by the authorized NPDES program.

Enforcement Actions

According to EPA’s ECHO State Water Dashboard, on average over the last three fiscal years (2012 through 2014) approximately 30% of major individual permit facilities and 19% of nonmajor individual permit facilities had concluded enforcement actions. Data were not available on concluded enforcement actions by subprogram. Therefore, the analysis uses these averages across subprograms as estimates of the annual reporting frequency for concluded enforcement actions for pretreatment facilities (0.30 for major individual permits and 0.19 for nonmajor individual permits).

2.11.3 Summary

Table 2-13 summarizes the number of regulated entities submitting pretreatment program data and the annual frequencies for each required data family.

Table 2-13: Pretreatment Permit Universe and Annual Reporting Frequency			
	Individual Majors	Individual Nonmajors	General Nonmajors
Pretreatment Program Report Filers	1,462	114	0
Data Family	Annual Reporting Frequency	Annual Reporting Frequency	Annual Reporting Frequency
Permits ^b	0.2 ^a	0.2 ^a	n/a
Limits	0.2	0.2	n/a
Limit Sets	0.2	0.2	n/a
DMRs	12.0	12.0	n/a
Program Reports ^c	1	1	n/a
Compliance Monitoring	0.56	0.26	n/a
Violations ^d	0.67	0.53	n/a
Enforcement Actions	0.30	0.19	n/a

^a Annual reporting frequency applies only to those permit data elements specific to the pretreatment program. All other permit data elements are captured by CSS and SSS POTWs.
^b In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1.
^c In addition to applying to the universe of permits shown above, the program report requirement also applies to states and EPA regions where they are the Control Authority for the pretreatment program.
^d In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.

2.12 Summary

Table 2-14 shows the number of individual major, individual nonmajor, and general nonmajor permits under each subprogram. As described in Figure 2-1, the universe numbers presented here are a major input into the cost analysis. Combining the frequencies and universes with the data entry and report processing costs (discussed in Section 4) determines the total savings and cost associated with the final rule. Table 2-15 presents the annual frequencies by data family for each permit type under each subprogram. Note, however, that not all of the regulated entities enumerated in Table 2-14 submit every type of report. To clarify this point, Table 2-16 shows the number of filers for each type of report (NOIs, DMRs, and program reports) under each subprogram.

Table 2-14: Universe Summary by NPDES Subprogram			
NPDES Subprogram	Number of NPDES Permits		
	Individual Majors	Individual Nonmajors	General Nonmajors
Non-POTWs (Industrial, Agriculture, and Stormwater)			
Standard Industrial Dischargers (may also file CWA §316(b) data)	1,683	18,993	118,073 ^a
CWA §316(b) Filers			
Permits with Cooling Water Intake Data	1,171	0	0
Permits with Thermal Variance Data	554	0	0
Industrial Facilities Submitting CWA §316(b) Annual Reports	200	0	0
Significant Industrial Users (SIUs)^b			
SIUs in Municipalities with Pretreatment Program	0	29,060	0
SIUs in Municipalities without Pretreatment Program	0	2,487	0
Concentrated Animal Feeding Operations	0	1,266	5,291
Industrial and Construction Stormwater			
Industrial	132	563	92,282
Construction	1	638	243,227
Municipal Stormwater^c			
Phase I municipal separate storm sewer systems (MS4s)	249	0	9
Phase II MS4s	0	204	5,093
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)			
POTWs with Combined Sewer Systems (CSSs) ^d	462	244	68
POTWs with Sanitary Sewer Systems (SSSs) only ^d	3,533	9,197	1,281
TWTDSs	779	7,510	655
POTW NPDES Report Filers			
Biosolids/Sewage Sludge Report Filers	4,209	694	0
Pretreatment Program Report Filers	1,462	114	0
Sewer Overflow/Bypass Event Report Filers ^d	4,774	16,950	2,003
<p>^a Includes 9,125 pesticide applicators and 63,000 vessels that are already filing electronically</p> <p>^b These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.</p> <p>^c Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s and nonmajors.</p> <p>^d The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs.</p>			

Table 2-15: Annual Reporting Frequency Summary by Data Family and Permit Type

Subprogram	Permit Type	Annual Reporting Frequency							
		Permits ^a	Limits	Limit Sets	DMRs	Program Reports	Compliance Monitoring	Violations ^b	Enforcement Actions
Non-POTWs (Industrial, Agriculture, and Stormwater)									
Standard Industrial Dischargers (includes CWA §316(b) Filers)	Individual Major	0.2	0.2	0.2	12.0	1 ^c	0.56	0.67	0.30
	Individual Nonmajor	0.2	0.2	0.2	12.0	0	0.26	0.53	0.19
	General Nonmajor	0.2	0.0	0.0	12.0	0	0.07	0.53	0.19
Significant Industrial Users (SIUs) In Municipalities without Pretreatment Program^d		n/a	n/a	n/a	n/a	2	n/a	n/a	n/a
Concentrated Animal Feeding Operations	Individual Nonmajor	0.2	0.0	0.0	0.0	1	0.26	0.53	0.19
	General Nonmajor	0.2	0.0	0.0	0.0	1	0.07	0.53	0.19
Industrial & Construction Stormwater									
Industrial	Individual Major	0.2	0.2	0.2	3.0	0	0.56	0.67	0.30
	Individual Nonmajor	0.2	0.2	0.2	3.0	0	0.26	0.53	0.19
	General Nonmajor	0.18 ^e	0.0	0.0	3.0	0	0.07	0.53	0.19
Construction	Individual Major	0.2	1 ^f	1 ^f	1 ^f	0	0.56	0.67	0.30
	Individual Nonmajor	0.2	1 ^f	1 ^f	1 ^f	0	0.26	0.53	0.19
	General Nonmajor	0.17 ^e	0	0	1 ^f	0	0.07	0.53	0.19
Municipal Stormwater^g									
Phase I MS4s	Individual Major	0.2	0.2	0.2	12.0	1	0.56	0.67	0.30
	General Nonmajor	0.2	0.0	0.0	12.0	1	0.07	0.53	0.19
Phase II MS4s	Individual Nonmajor	0.2	0.0	0.0	0.0	0.4	0.26	0.53	0.19
	General Nonmajor	0.2	0.0	0.0	0.0	0.4	0.07	0.53	0.19
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)									
POTWs with CSSs ^h	Individual Major	0.2	0.2	0.2	12.0	12.51 ⁱ	11.22 ^j	0.67	0.30
	Individual Nonmajor	0.2	0.2	0.2	12.0	12.51 ⁱ	11.22 ^j	0.53	0.19
	General Nonmajor	0.2	0.2	0.2	12.0	12.51 ⁱ	11.22 ^j	0.53	0.19
POTWs with SSSs only and TWTDSs ^h	Individual Major	0.2	0.2	0.2	12.0	2.65 ⁱ	2.57 ^j	0.67	0.30
	Individual Nonmajor	0.2	0.2	0.2	12.0	2.65 ⁱ	2.57 ^j	0.53	0.19
	General Nonmajor	0.2	0.2	0.2	12.0	2.65 ⁱ	2.57 ^j	0.53	0.19
POTW NPDES Report Filers									
Biosolids/Sewage Sludge Report Filers	Individual Major	0.2 ^j	0.0	0.0	0.0	1	0.0	0.0	0.0
	Individual Nonmajor	0.2 ^j	0.0	0.0	0.0	1	0.0	0.0	0.0
Pretreatment Program Report Filers	Individual Major	0.2 ^j	0.2	0.2	12.0	1 ^k	0.56	0.67	0.30
	Individual Nonmajor	0.2 ^j	0.2	0.2	12.0	1 ^k	0.26	0.53	0.19

^a In addition to the permit frequencies shown the analysis includes data entry associated with minor changes at the permitted facility with an annual reporting frequency of 0.1.

^b In addition to the violation frequencies shown, the analysis includes expanded reporting of SEV data elements for nonmajor facilities with an annual frequency of 0.09.

^c Applies only to the subset of facilities submitting CWA §316(b) Annual Reports.

^d These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.

^e Accounts for facilities filing NECs and LEWs, as well as NOIs.

^f The analysis assumes 1% of construction stormwater regulated entities have DMR requirements due to an enforcement action. These facilities need to submit DMRs to show they have returned to compliance and are assigned a frequency of 1 for DMRs and, for individual permits, limits and limit sets.

^g Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s as nonmajors.

^h The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs.

ⁱ Accounts for the submission of sewer overflow and bypass event reports.

^j Applies only to those permit data elements specific to the biosolids and pretreatment programs. All other permit data elements are captured by CSSs POTWs, SSSs POTWs, TWTDSs, or standard industrial dischargers.

^k The program report requirement also applies to states and EPA regions where they are the Control Authority for the pretreatment program.

Table 2-16: Number of Filers by NPDES Subprogram and Report Type				
Subprogram	Permit Type	NOI Filers	DMR Filers	Program Report Filers
Non-POTWs (Industrial, Agriculture, and Stormwater)				
Standard Industrial Dischargers	Individual Major	0	1,683	0
	Individual Nonmajor	0	18,993	0
	General Nonmajor	45,948	41,353	0
CWA §316(b) Filers ^a		0	0	200
Significant Industrial Users (SIUs) In Municipalities without Pretreatment Program ^b		0	0	2,487
Concentrated Animal Feeding Operations	Individual Nonmajor	0	0	1,266
	General Nonmajor	5,291	0	5,291
Industrial & Construction Stormwater				
Industrial	Individual Major	0	132	0
	Individual Nonmajor	0	563	0
	General Nonmajor	92,282	92,282	0
Construction	Individual Major	0	0	0
	Individual Nonmajor	0	6	0
	General Nonmajor	83,871 ^c	2,432	0
Municipal Stormwater^d				
Phase I MS4s	Individual Major	0	249	249
	General Nonmajor	9	9	9
Phase II MS4s	Individual Nonmajor	0	0	204
	General Nonmajor	5,093	0	5,093
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)				
POTWs with CSSs ^e	Individual Major	0	462	462 ^f
	Individual Nonmajor	0	244	244 ^f
	General Nonmajor	68	68	68 ^f
POTWs with SSSs only and TWTDSs ^e	Individual Major	0	4,312	4,312 ^f
	Individual Nonmajor	0	16,706	16,706 ^f
	General Nonmajor	1,935	1,935	1,935 ^f
POTW NPDES Report Filers				
Biosolids/Sewage Sludge Report Filers ^a	Individual Major	0	0	4,209
	Individual Nonmajor	0	0	694
Pretreatment Program Report Filers	Individual Major	0	1,462	1,462
	Individual Nonmajor	0	114	114
^a DMR filings by these facilities are captured by CSS POTWs, SSS POTWs, TWTDSs, or standard industrial dischargers. ^b These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule. ^c Assumes 2.9 construction stormwater general permits per firm. ^d Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s and nonmajors. ^e The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs. ^f Accounts for the submission of sewer overflow and bypass event reports.				

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Section 3. – Activities Affected by the Final NPDES Electronic Reporting Rule

3.1 Introduction

The final rule will update the way regulated entities, authorized NPDES programs, and EPA provide and share NPDES information. EPA and state authorized NPDES programs will update their IT systems so that regulated entities can electronically submit NPDES information, and EPA and the states can share the information. When the rule is fully implemented, regulated entities will submit their information to their authorized NPDES program electronically. Authorized NPDES programs will share that data with EPA, and will also share with EPA the data they generate. During the initial implementation period (within five years after the effective date of the rule), some regulated entities might be required to submit NOIs, DMRs, and program reports both electronically and on paper, depending on the reporting requirements set out in their permits.

After implementation, the rule will produce significant annual savings. During implementation, the costs will exceed the savings, as described below. Table 3-1 identifies which entities incur costs and cost savings associated with the implementation phase and ongoing administration of the NPDES program under the rule.

Table 3-1: Distribution of Savings and Costs of the Rule			
	Regulated Entity	Authorized NPDES Program	EPA
Updating IT systems to share information		Costs	Costs
Electronic reporting during transition	Costs		Costs
Switching to electronic reporting systems	Savings/Costs	Savings/Costs	
Sharing NPDES information electronically		Savings/Costs	Savings/Costs

The activities necessary to update how regulated entities and state authorized NPDES programs submit information to and share information with EPA are:

- Authorized NPDES program and EPA implementation of an electronic reporting system for submitting regulated entity data;
- Authorized NPDES program and EPA implementation of an electronic reporting system for submitting authorized NPDES program data to EPA;
- Authorized NPDES programs making decisions regarding their initial recipient status;
- Authorized NPDES programs demonstrating their attorneys general accept electronic signatures in lieu of physical signature, thereby certifying compliance with EPA’s Cross Media Electronic Reporting Rule (CROMERR);
- Authorized NPDES programs preparing implementation plans and EPA review and approval of those plans;
- Authorized NPDES programs updating their Memoranda of Agreement with their Regional Administrator;
- Authorized NPDES program and EPA developing criteria for temporary and permanent waivers from electronic reporting;
- Authorized NPDES program and EPA coordination via training webinars;
- Authorized NPDES program entering newly shared data for all regulated entities;
- EPA assessing participation rates and, where appropriate, conducting oversight using its CWA authority and ICR to compel NPDES-regulated entities to utilize their NPDES program’s electronic reporting system; and,

- Authorized NPDES programs and EPA modifying permits to require electronic submissions.

Regulated entities and authorized NPDES programs will need to make changes in order to use the updated data bases and reporting tools. The activities required to use the updated systems are:

- Regulated entity registration for and maintenance of user accounts in CDX or the state authorized NPDES program electronic system and submission of electronic signature agreements;
- Regulated entity training;
- Regulated entity submission of electronic NOIs, DMRs, and program reports; and,
- Authorized NPDES program electronic submission of programmatic Appendix A data to EPA.

When electronic submission is operational, regulated entities and authorized NPDES programs will experience ongoing savings from operational efficiencies. During the first five years, there will be costs associated with the initial development and implementation of electronic reporting for regulated entities and authorized NPDES programs, as well as submittal of programmatic data elements to ICIS-NPDES by the authorized NPDES program. This section outlines: 1) the activities required to establish electronic reporting systems, 2) the requirements of electronic reporting during the implementation period, and 3) ongoing savings and costs associated with preparing and sharing all required NPDES data.

3.2 Updating the Reporting Process

Updating the NPDES information flow will allow state authorized NPDES programs and EPA to share information through the internet and have a central repository of NPDES information. Currently, NPDES information is managed in ICIS-NPDES.³¹ Authorized NPDES programs use three methods to submit data to ICIS-NPDES:

- Direct Entry: Authorized NPDES programs using direct entry enter data into EPA data systems directly.
- Batch Upload: Authorized NPDES programs using batch upload employ their state system to track regulated entities and their own activities under the NPDES program. This NPDES information is periodically uploaded to EPA data systems.
- Hybrid: Authorized NPDES programs using hybrid approaches enter most data over the web, with the DMR component of the NPDES permit batch uploaded to EPA data systems periodically.

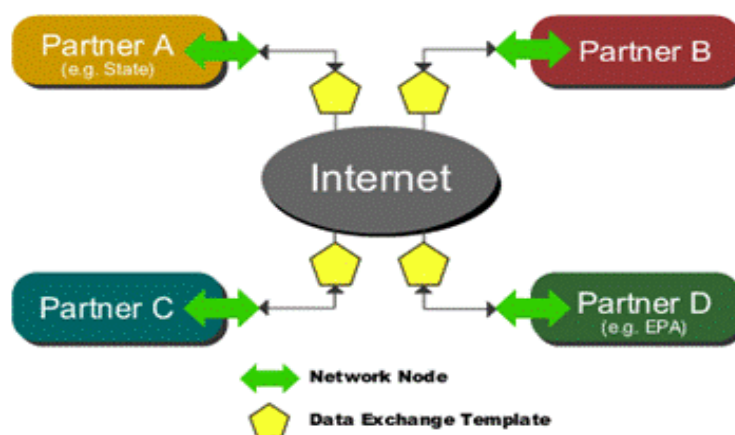
The final rule will require EPA and state authorized NPDES programs to capture all required data, establish electronic reporting systems, and for states to certify that their systems are CROMERR-compliant. The rule does not preclude authorized NPDES programs from maintaining their own information systems. EPA expects that authorized NPDES programs will move all regulated entities to electronic reporting within five years of the effective date of the rule. This section discusses the changes required by the rule.

³¹ EPA completed the migration of data from PCS to ICIS-NPDES for all states in 2013.

3.2.1 State Authorized NPDES program and EPA Implementation of a Data Exchange

To implement electronic reporting,³² EPA and the state authorized NPDES programs will need to establish and operate an IT system organized so that state authorized NPDES program data systems and EPA's ICIS-NPDES operate as a coordinated CWA program management system that can work together. The system will use existing technology and standards from the National Environmental Information Exchange Network as a basis for the new data exchange. The Exchange Network allows network members to share environmental information over the internet in two directions. Figure 3-1 shows how states and EPA can access each other's information through the network.

Figure 3-1: The Exchange Network



Each state currently has a network node allowing states and EPA to access and share information over the internet. The final rule will leverage this capability to reduce the costs associated with data entry and transfer, ultimately improving access to NPDES information for program management.

State system modification costs depend on whether the state NPDES system already uses the Exchange Network. States that have a preexisting data flow with EPA only need to map the data elements to the appropriate fields in their own systems. EPA currently provides a downloadable tool that assists authorized NPDES programs in the mapping process. Authorized NPDES programs that do not use the Exchange Network will need to configure a full data flow. To facilitate these processes, EPA will offer webinars outlining the changes required by the rule and providing solutions for common problems.

Although regulated entities and authorized NPDES programs are both responsible for generating NPDES data, EPA is responsible for creating and maintaining electronic reporting tools, such as NetDMR, and the central repository of NPDES information – ICIS-NPDES. The NetDMR and NeT systems already exist, but will need enhancement to accommodate the all of the data defined

³² This analysis defines IT implementation as the deployment and development of an electronic reporting system for submission of data from regulated entities to their authorized NPDES program and exchanges between authorized NPDES programs and EPA.

in Appendix A, and to accommodate the higher submission volumes that will result from the final rule. EPA will also create a new electronic tool allowing regulated entities to submit their program reports online. Once these tools are implemented, EPA will incur operating and maintenance costs into the future.

State authorized NPDES programs may develop and operate their own reporting tools to meet rule requirements. Because EPA will offer national tools supporting each of the regulated entity submissions to permit authorities, state system changes are not required. However, the analysis assumes that states currently operating their own systems will bear a cost to expand these systems to store all Appendix A data. It also assume that these states will bear ongoing costs to manage the transfer of data from their systems to EPA and to provide ongoing training and technical support to regulated entities using their systems.

3.2.2 Compliance with the Cross Media Electronic Reporting Rule

Authorized NPDES programs need to assure that the newly required electronic documents are legally equivalent to hardcopy documents by meeting the requirements of EPA's Cross Media Electronic Reporting Rule (CROMERR).³³ CROMERR requires authorized NPDES program Attorneys General to certify that their laws provide sufficient legal authority to implement electronic document receiving systems and enforce the affected programs using those documents in lieu of the hardcopy reports physically signed by the regulated entity. In addition, CROMERR requires documenting how the receiving system meets CROMERR criteria and any other documentation requested by the EPA Administrator that must be provided before the state authorized NPDES program can use electronic systems to receive regulated entities' information and to manage its own NPDES information.

3.2.3 Supplying Facility, Limit and Limit Set data

In order for the electronic system to properly route regulated entity information between state authorized NPDES programs and EPA, and to automate the comparison of DMR data to the limits and limit sets in the permit, authorized NPDES programs will need to share their facility information, limits and limit sets with EPA. Currently, much of the monitoring information for nonmajor permits is maintained on paper files or electronically in state computer systems and is not being passed to ICIS-NPDES. EPA does not have detailed information regarding the authorized NPDES program information systems, and whether or not they conform to the requirements of the final rule. For that reason, EPA assumes each authorized NPDES program will manually enter appropriately formatted limit and limit set information into the new system within one year of the effective date of the rule so that regulated entities will be able to use the system when the rule requires them to sign up for electronic accounts during that time. In reality, many states may have already automated much of this data, in which case their costs will be less than estimated in this analysis.

3.2.4 Additional Implementation Activities

As part of updating the reporting process, authorized state NPDES programs and EPA will need to undertake several additional implementation activities, which include:

- Making decisions regarding initial recipient status;
- Preparing and reviewing/approving implementation plans;
- Updating Memoranda of Agreement with Regional Administrators;

³³ <http://www.epa.gov/cromerr/states.html>

- Developing criteria for temporary and permanent waivers from electronic reporting;
- Undertaking training webinars;
- Conducting oversight; and,
- Modifying permits (to require electronic submissions).

This analysis includes the cost of all of these activities, using assumptions outlined in detail in Section 4.

3.3 Electronic Reporting during Transition

As a means to “fill in the gaps” where NPDES-regulated entities are not yet reporting electronically, EPA will use its existing authority under the CWA along with current technology and an ICR to require NPDES-regulated entities to report electronically. As a result, during the initial implementation period (within five years after the effective date of the rule), some regulated entities might be required to submit data both electronically and on paper. The conditions under which this “dual reporting” could occur are the following:

- The regulated entity’s authorized NPDES program has an electronic reporting system in place;
- The regulated entity’s permit (or other control mechanism) explicitly requires paper reporting;
- The conditions that require paper reporting are not changed outside of the normal permit cycle (e.g., through the minor modification process); and
- The authorized NPDES program does not use its enforcement discretion to refrain from enforcing the conditions that explicitly require paper reporting.

These conditions are likely to occur only for a small number of regulated entities and would last only until the permit is re-issued with electronic reporting requirements on the normal permit cycle. Still, this analysis accounts for this potential for dual reporting for a percentage of facilities during the transition period.

3.4 Using the Updated System

The updated system will change the way information is shared by regulated entities, authorized NPDES programs, and EPA. These changes will increase the operational efficiency of the NPDES program by eliminating the need for authorized NPDES programs to transcribe paper reporting documents into the system of record and the manual comparison of facility DMRs to the limits and limit sets established in the permit. Furthermore, these changes will reduce the amount of coordination needed between state authorized NPDES programs and EPA to produce the annual NPDES reports required by 40 CFR 123.45(c). This section describes the assumptions and sources of savings and costs associated with using the updated systems.

3.4.1 Regulated Entity Registration and Training

To use the electronic reporting system for NetDMR and NeT, individual regulated entities will need to set up accounts, either on the Central Data Exchange (CDX), EPA’s node on the Exchange Network, or a similar data portal provided by their authorized NPDES program. To set up the account, regulated entities mail their authorized NPDES program an electronic signature agreement (ESA) stating that their electronic PIN number is the legal equivalent of their written signature. For construction stormwater general permit reports (e.g., NOIs), however, the final rule

allows NPDES programs to use a “hybrid approach.” The hybrid approach would use automatic identification and data capture technologies to eliminate the need for construction operators to obtain and maintain a digital signature.

NetDMR or authorized NPDES program eDMR systems are sufficiently complex that many regulated entities will need training to effectively use them. EPA currently offers an online training session explaining how to submit DMRs through the NetDMR tool. The training informs regulated entities about login procedures, uploading their DMR information, and how their designated testing laboratory can upload their DMR monitoring information directly into the NetDMR system. Experience with currently operating systems has shown that training is not necessary for submitting NOIs or program reports electronically, as these tools are less complicated. General permit facilities would also use these less complicated tools to submit DMRs and, therefore, not require training.

Table 3-2 shows the registration and training requirements for regulated entities. In addition, some small entities currently use a personal email address on NPDES forms. These entities would need to acquire a new, business email address as part of the registration process. Finally, EPA’s electronic reporting systems include 90-day password reset requirement. The password reset requirement is not a requirement of the rule, but a long standing EPA security requirement that is used for all of the agencies internal and external systems. This requirement means that regulated entities that report using EPA’s systems less frequently than every 90 days will need to reset their password when they report. Entities that report more frequently will maintain their active password as part of the normal course of reporting. Information is not available on which, if any, state electronic reporting systems might include similar password reset requirements. Therefore, the analysis considers the burden and cost of password resets only for entities using EPA systems (either because the authorized NPDES program is a direct user of EPA system or because EPA itself is the authorized NPDES program).

Table 3-2: Registration and Training Requirements by NPDES Subprogram				
Subprogram	Permit Type	CDX Registration	ESA	NetDMR Training
Non-POTWs (Industrial, Agriculture, and Stormwater)				
Standard Industrial Dischargers (includes CWA §316(b) Filers)	Individual Major	Yes	Yes	Yes
	Individual Nonmajor	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
Significant Industrial Users (SIUs) In Municipalities without Pretreatment Program		Yes	Yes	No
Concentrated Animal Feeding Operations	Individual Nonmajor	Yes	Yes	No
	General Nonmajor	Yes	Yes	No
Industrial & Construction Stormwater				
Industrial	Individual Major	Yes	Yes	Yes
	Individual Nonmajor	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
Construction	Individual Major	Yes	Yes	No ^a
	Individual Nonmajor	Yes	Yes	No ^a
	General Nonmajor	Yes ^b	Yes ^b	No
Municipal Stormwater				
Phase I MS4s	Individual Major	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
Phase II MS4s	Individual Nonmajor	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)				
POTWs with CSSs	Individual Major	Yes	Yes	Yes
	Individual Nonmajor	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
POTWs with SSSs only and TWTDSs	Individual Major	Yes	Yes	Yes
	Individual Nonmajor	Yes	Yes	Yes
	General Nonmajor	Yes	Yes	No
POTW NPDES Report Filers				
Biosolids/Sewage Sludge and Pretreatment Program Report Filers ^c		n/a	n/a	n/a
^a 1% of construction stormwater individual permits that require DMRs due to an enforcement action would require training. ^b Construction general permit facilities that use a hybrid approach would not need electronic signatures. ^c Registration and training are captured by CSSs POTWs, SSSs POTWs, TWTDSs, or standard industrial dischargers.				

3.4.2 Regulated Entity Discharge Monitoring and Program Report Submission

Currently, regulated entities submit most of their DMRs and program reports in hard copy through the mail. The authorized NPDES program receives these reports and, for major regulated entities, manually transcribes the DMRs and some data elements from the program reports into ICIS-NPDES or authorized NPDES program's system. The authorized NPDES program then archives the paper files.³⁴ The final rule will require regulated entities to submit these reports electronically. Electronic reporting by regulated entities will eliminate paper and postage costs as well as the time required to physically transfer paper forms from regulated entities to the authorized NPDES program and then enter the required data into authorized NPDES program systems or ICIS-NPDES. Some EPA Regions and other authorized NPDES programs send pre-populated DMR forms to regulated entities. Under the final rule this activity will also be unnecessary and the associated paper and postage costs will be eliminated.

³⁴ Currently, EPA requires program reports and DMRs to be collected, however there is no requirement for that information to be entered into an electronic data system. A number of states are maintaining paper filing systems for these reports.

3.4.3 Additional Required Data from the Authorized NPDES Program

As discussed in Section 1, the final rule will increase the amount of data authorized NPDES programs are required to share electronically with EPA. The rule requires authorized NPDES programs to enter into an electronic information system any of the data elements listed in Appendix A that are not submitted electronically by their regulated entities. This requirement will apply to major, nonmajor, and general permits. Some of this information was previously available from the regulated entity and was manually entered into ICIS-NPDES. Other information was previously submitted by the regulated entity in hardcopy form and stored at the authorized NPDES program until needed for compliance oversight or annual reporting to EPA. With electronic reporting, regulated entity information will electronically flow into the authorized NPDES program's data system, eliminating the need for manual data entry and resulting in savings to the authorized NPDES program. These savings might be partially offset by the need for authorized NPDES programs to enter programmatic information, such as: 1) regulated entity data previously stored in hardcopy form; or 2) compliance monitoring, inspection, or enforcement information that was not previously entered into ICIS-NPDES. The cost of submitting these data to ICIS-NPDES is partially mitigated by auto-populating specific fields, such as the date an electronic report is received.

For example, in order to compare DMRs to their permits' required limits, the authorized NPDES program will need to enter all limits and limit sets into ICIS-NPDES. Currently this information is only required for major permits. Under the final rule, this information will be required for all permit types. Individual permits will need their specific limits and parameters entered by the authorized NPDES program permit writer. For general permits, the task is simplified by bundled limit sets that permit writers can apply to all facilities covered by the same general permit. For example, offshore drilling general permits will be able to use all limit sets pertaining to that activity by selecting the bundled offshore drilling limit sets from a dropdown menu.

3.4.4 Replacing the Annual Non-Compliance Report, Quarterly Non-Compliance Report, and Semi-Annual Statistical Summaries with the New National Non-Compliance Report

Existing CWA regulations (40 CFR 123.45) require that authorized NPDES programs submit to EPA annual, quarterly, and semi-annual reports regarding the compliance status of regulated entities in their jurisdiction. To meet this requirement, state authorized NPDES programs submit their non-compliance information to the Regional Administrator, who submits them to EPA headquarters. Under the final rule, this information will be readily available to EPA directly from ICIS-NPDES, obviating the need for state authorized NPDES programs to compile and submit the information. Therefore, the final rule will eliminate this reporting requirement, resulting in savings for state authorized NPDES programs and EPA Regions. The final rule will also replace the annual, quarterly, and semi-annual reports with a National Non-Compliance Report that EPA headquarters will develop, resulting in savings for states, EPA Regions and EPA headquarters. EPA savings will be partially offset by the headquarters effort required to program and produce the new National Non-Compliance Report.

3.5 Summary

Following implementation, the rule will result in ongoing savings for both regulated entities and authorized NPDES programs due to the operational efficiencies of electronic reporting, reduced data errors, and eliminating postage and paper costs. Once authorized NPDES programs establish electronic reporting systems, there will be net savings driven by eliminating DMR and program report data entry, in addition to operational efficiencies from improved data quality and no longer

having to mail, receive, or process paper reports.³⁵ ICIS-NPDES and authorized NPDES program systems will be able to automatically compare all DMR monitoring information to the limits of the respective NPDES permits and flag non-compliance, thus simplifying EPA and authorized NPDES program compliance oversight and rapidly identifying noncompliance that may threaten the health of receiving waters. Establishing a single, authoritative repository of NPDES information, will eliminate the need for the recurring effort and cost of developing and publishing periodic non-compliance reports from authorized NPDES programs. EPA headquarters will incur ongoing costs of implementing and maintaining the IT infrastructure necessary for electronic reporting, as well as publishing the new National Non-Compliance Report. The methodology used to estimate these savings and costs is discussed in Section 4. The benefits of improved ICIS-NPDES information associated with this rule are presented in Section 6.

³⁵ Authorized NPDES programs will incur costs associated with additional compliance and enforcement data entry.

Section 4. – Estimating the Economic Impacts of the Final NPDES Electronic Reporting Rule

4.1 Introduction

This section describes how the savings and costs of the final rule were estimated. These savings and costs are experienced by regulated entities, authorized NPDES programs, and EPA headquarters. The estimates are used to calculate the total net savings of the final rule and to determine the impact of the rule on small businesses in Section 5. Estimates of the cost of the rule are developed for four categories: 1) implementation; 2) data entry; 3) submission processing; and 4) submission. To determine the impacts on each category, EPA solicited states, Regions, and program experts to identify the burden associated with the current data flow and reporting processes, and identify how these processes would change. The following sections discuss how the changes were monetized and the total savings and costs associated with the final rule.

Estimating the incremental savings and costs involved the following steps:

- Determine EPA and authorized NPDES program costs associated with updating the way NPDES information is shared;
- Determine authorized NPDES program savings and costs associated with changes in data entry of NPDES information;
- Determine authorized NPDES program savings associated with changes in processing of NPDES information;
- Determine regulated entity savings and costs associated with electronic submission of NPDES information; and,
- Determine other implementation costs for regulated entities and authorized NPDES programs required by or resulting from compliance with the final rule.

Section 4.2 shows the labor costs used in the analysis. Section 4.3 provides a description of costs associated with updating information sharing among authorized NPDES programs and EPA. Section 4.4 discusses the savings and costs associated with using the updated systems. Section 4.5 discusses EPA's planned implementation phase-in approach, as well as the savings/cost schedules and return on investment for the final rule.

The costs and savings associated with the final rule include:

- Updating the IT systems;
- Data processing needed for authorized NPDES programs to accept electronic reporting from NPDES regulated entities;
- Data entry for regulated entity electronic reporting during the transition;
- Data processing needed to ensure the transfer of all required NPDES data from authorized NPDES programs into ICIS-NPDES;
- Reduced data entry for authorized NPDES programs once regulated entities enter data directly into the electronic systems;
- Elimination of paper mailing and processing of DMRs and permits; and
- Elimination of ANCR, QNCR, and SASS reports.

As shown in Table 4-1, savings and costs are incurred by regulated entities, authorized NPDES programs, and EPA.

Table 4-1: Distribution of Savings and Costs of the Rule			
	Regulated Entity	Authorized NPDES Program	EPA
Updating IT systems to share information		Costs	Costs
Electronic reporting during transition	Costs		Costs
Switching to electronic reporting systems	Savings/Costs	Savings/Costs	
Sharing NPDES information electronically		Savings/Costs	Savings/Costs

Three significant baseline assumptions are made for the savings and cost analysis. The first is that currently there is full compliance with existing data requirements.³⁶ Although some authorized NPDES programs may already be submitting information beyond those requirements, it is not possible to accurately account for that additional information at this time. Where authorized NPDES programs are reporting to ICIS-NPDES more data than is currently required, the analysis may overestimate incremental costs.

The second major assumption is to disregard some of the impact of existing state authorized NPDES program electronic reporting systems. EPA acknowledges that some states are currently using electronic reporting systems. The analysis incorporates available data about the extent to which regulated entities are using electronic reporting systems to submit DMRs (e.g., the data indicate that 10% of regulated entities in Alabama are electronically submitting DMRs). However, some states may also have electronic reporting systems for other data (e.g., NOIs). Where regulated entities are already submitting data other than DMRs electronically through state systems, the analysis may overestimate savings and implementation costs for both the regulated entity and authorized NPDES program.

The third major assumption is that, as a result of the inclusion of state-specific waiver provisions developed under the rule (see Section 4.3.3), a total of 1% of regulated entities will have permanent or temporary waivers from electronic reporting in any given year. The analysis applies this waiver percentage across subprograms, data families, and permit types (e.g., major, nonmajor). Those regulated entities receiving waivers are excluded from the analysis' calculation of savings and implementation costs. Authorized NPDES programs would bear the burden of data entry for these regulated entities. The net impact of the waiver percentage is to decrease total net savings (i.e., an increasing percentage of facilities receiving waivers decreases the estimated net savings).

4.2 Labor Costs

To estimate the cost associated with data entry, processing, and submission activities (Section 3), the analysis uses 2014 hourly wage rates for three job categories: managerial, programmer/technical, and data clerk/administrative; each of which include fringe benefits and overhead. Average wage data for these categories are based on the Bureau of Labor Statistics' Employer Costs for Employee Compensation in December 2014, which has separate wage estimates for government and private sector workers.³⁷

More specifically, the managerial labor rate for government workers is the BLS national average in the management, professional, and related occupational group. The managerial labor rate for private industry workers is the BLS national average in the management, business, and financial

³⁶ One exception to this assumption involves the forwarding of biosolids permit data, discussed in more detail in Section 4.4.3. Although this activity is an existing requirement, this analysis includes its full cost, which may slightly overestimate the incremental cost of the rule.

³⁷ <http://www.bls.gov/news.release/ecec.t04.htm>

occupational group. Its use in this analysis includes as the average hourly wages for staff who plan, direct, or coordinate electronic data processing, information systems, systems analysis, and computer programming.

The programmer/technical labor rate for each sector is the BLS national average in the professional and related occupational group. Its use in this analysis includes as the average hourly wages for staff who convert project specifications and statements of problems and procedures to detailed logical flow charts for coding into computer language; develop and write computer programs to store, locate, and retrieve specific documents, data, and information; and may program web sites.

The data clerk/administrative labor rate for each sector is the BLS national average in the office and administrative support occupational group. Its use in this analysis includes as the average hourly wages for staff who compute, classify, and record numerical data to keep financial records complete; perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records; and may also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

The Bureau of Labor Statistics provides hourly wage and benefit rates (e.g., paid leave and insurance). Based on information provided by the chemical industry and chemical industry trade associations, an additional loading factor of 17% is applied to hourly wages and benefits for general overhead. (See Table 4-2).³⁸

Cost Components, by Job Category	BLS Government Hourly Wage Rate	BLS Industry Hourly Wage Rate
Managerial		
Hourly Wage	\$35.52	\$44.52
Benefits	\$17.72	\$22.04
Overhead	\$6.04	\$7.57
Managerial Fully Loaded Wage Rate Per Hour	\$59.28	\$74.13
Programmer/Technical		
Hourly Wage	\$35.16	\$34.63
Benefits	\$17.16	\$14.87
Overhead	\$5.98	\$5.89
Programmer/Technical Fully Loaded Wage Rate Per Hour	\$58.30	\$55.39
Data Clerk/Administrative		
Hourly Wage	\$18.08	\$16.52
Benefits	\$12.27	\$7.46
Overhead	\$3.07	\$2.81
Data Clerk/Administrative Fully Loaded Wage Rate Per Hour	\$33.42	\$26.79

4.3 Cost of Updated Information Sharing among Authorized NPDES Programs and EPA

As described in Section 3, implementing the rule will require state authorized NPDES programs and EPA to establish an electronic reporting system. As shown in the data flow diagram in Section 1 (Figure 1-2), the data capture process begins with regulated entities submitting their data into the electronic system provided by their authorized NPDES program or EPA. Several

³⁸ Heiden Associates, *Final Report: A Study of Industry Compliance Costs Under the Final Comprehensive Assessment Information Rule*, Prepared for the Chemical Manufacturers Association, December 14, 1989.

state authorized NPDES programs ³⁹ receive DMR information through state-operated eDMR systems that are different from EPA’s NetDMR in that they only send regulated entity data to the state authorized NPDES program, whereas NetDMR sends regulated entity data to both the state authorized NPDES program and EPA.

As discussed in Section 3, authorized NPDES programs enter data into ICIS-NPDES using direct, hybrid, and batch methods. Direct users manage their programmatic information in ICIS-NPDES and use EPA’s electronic reporting tools to capture regulated entity submissions. Hybrid authorized NPDES programs use ICIS-NPDES for some information and batch upload their DMR information. Batch authorized NPDES programs manage their information in state systems, and batch upload all of their information to EPA. For these systems to accept electronic data from the regulated entities and transfer that information between EPA and authorized NPDES programs, alterations to both state and EPA IT systems are necessary. EPA will provide optional electronic reporting tools for regulated entities and authorized NPDES programs to use, and will provide a central repository housing all nationally required NPDES information. This section details the estimated implementation costs for authorized NPDES programs and EPA to set up this system.

4.3.1 Electronic Reporting Tool Implementation Costs

Before regulated entities can use the electronic reporting system, authorized NPDES programs and EPA will need to provide the necessary reporting tools. The tools EPA will develop include augmented versions of the current NeT and NetDMR systems. Cost estimates for IT system modifications were derived by comparing the architecture of the current system against the requirements of the rule. Table 4-3 presents EPA’s estimated cost of implementation for the new tools. It also includes the cost to add the new Appendix A data elements to ICIS-NPDES.⁴⁰ Table 4-3 also shows EPA’s estimated annual operations and maintenance cost, discussed further in Section 4.3.2.

Table 4-3: EPA Implementation Costs for Electronic Reporting Tools	
Cost Categories	Total Cost (\$)
Initial Implementation	
System Enhancements	\$8,023,000
Adding Data Elements	\$1,680,000
Total	\$9,703,000
Annual Operations and Maintenance	
Enhancements to NetDMR	\$109,000
NeT: NOI functionality	\$423,000
NeT: Program Report functionality	\$423,000
Total	\$955,000

Implementation costs for authorized NPDES programs will vary depending on whether the state is a batch user and what electronic tools the state currently uses. Batch system databases will need to be expanded to store all Appendix A data. Because EPA does not have independent estimates of the comparable system costs for each state, tribe, and territory, EPA’s estimate of costs for those NPDES-authorized programs to expand their databases is based on EPA’s costs to add data

³⁹ State authorized NPDES programs are the subset of all authorized NPDES programs where the state administers the NPDES program, as opposed to the EPA Region. Each state authorized NPDES program will have to update its system, whereas those states where the NPDES program is administered by the EPA Region will use the updated ICIS-NPDES.

⁴⁰ Estimates for initial implementation provided by EPA’s Office of Enforcement and Compliance Assurance, Data Systems and Information Management Branch in July 2015.

elements to ICIS-NPDES, or \$1.68 million per state, as shown in Table 4-3. With 21 states adding data elements, the total database expansion cost is \$35.3 million dollars. This estimate is conservative as several states already manage some of the new Appendix A data elements.

The final rule deletes latitude and longitude metadata (e.g., Facility Site Source Map Scale Number, Facility Site Horizontal Accuracy Measure) from Appendix A. Instead, EPA is requiring that latitude and longitude data use the World Geodetic System (WGS) 84 standard coordinate system. WGS84 is the modern worldwide standard for use in cartography, geodesy, and navigation. This coordinate system is currently the reference system being used by the Global Positioning System and is accurate within 1 meter. States that collect latitude and longitude on older coordinate systems (e.g., 1927 North American Datum) will need to convert their latitude and longitude to the newer, modern WGS84 coordinate system before they can share data with EPA. Because data are not available on which states might use older coordinate systems, the analysis assumes that all batch and hybrid states will need to convert to WGS84. The analysis assumes that the switch to WGS84 will require 48 hours per state of programming effort, including identifying and converting existing non-WGS84 data and setting up systems to convert newly entered non-WGS84 data, for a per state implementation cost of \$2,800. Conservatively assuming all 26 batch and hybrid states must convert coordinate systems, the total cost is \$72,800.

State implementation costs also vary based on whether the state has a CROMERR certified data system already in place. Certifying that the state system is CROMERR compliant requires the state Attorney General to review the applicable state laws to ensure that the electronic documents required under the rule are the legal equivalent to the hardcopy documents currently collected. The analysis estimates that cost to be approximately \$41,100 per state.⁴¹ The total cost of CROMERR certification is \$411,000 dollars.

After implementation, EPA envisions that regulated entities will use EPA or third party provided software (such as fillable PDFs) to submit NOIs, DMRs, or program reports to EPA and state authorized NPDES programs. Therefore, once data standards⁴² are established for each data element, state authorized NPDES programs will need to reconfigure their exchange templates (a piece of computer software that matches fields in the state database to fields in ICIS-NPDES) to allow the new NPDES data to flow between the state system and ICIS-NPDES. EPA technical experts expect data element mapping to require 120 hours for reports of more than 40 data elements and 60 hours for reports of less than or equal to 40 data elements. Furthermore, for states already using NetDMR, EPA expects the data mapping to require only 40 hours as these states already have the basic data structure mapped. Note that states are not already using the federal NeT system for NOIs and program reports, so there would not be similar reduced burdens. States will need to create one exchange template capable of handling all DMR data elements and a separate exchange template for NOIs and program reports for each subprogram for which the state is the authorized NPDES program. Therefore, individual state costs vary. The total cost to create all exchange templates is \$1.9 million dollars.

Table 4-4 summarizes the costs to authorized NPDES programs to implement electronic reporting tools. Inclusion of many of these costs in the analysis is conservative because the rule does not

⁴¹ This cost is based on a labor estimate provided by the New Jersey Department of Environmental Protection in comments on the Supplemental Notice for the Proposed Rule.

⁴² Data standards ensure that reports collected by one system are in a format that every other system can recognize. Once the standards are complete, state authorized NPDES programs and EPA will modify their IT systems to collect and share (send and receive) all of the required data through the exchange.

require authorized NPDES programs to develop their own data systems. Some authorized NPDES programs may choose to use EPA’s tools. Furthermore, these costs assume authorized NPDES programs would not pursue further enhancements to their data systems in the absence of the rule. Table 4-4 also shows estimated annual operations, maintenance, and support cost, discussed further in Section 4.3.2.

Table 4-4: State Authorized NPDES Program Implementation Costs for Electronic Reporting Tools			
Cost Categories	Number of States	Unit Cost (\$)	Total Cost (\$)
Initial Implementation			
Adding Data Elements	21	\$1,680,000	\$35,280,000
Converting Coordinate Systems	26	\$2,800	\$72,800
CROMERR Certification	10	\$41,100	\$411,000
Data Mapping			\$1,886,000
Total			\$37,650,000
Annual Operations, Maintenance, and Support			
Managing Data Transfer to EPA	26	\$121,258	\$3,153,000
Training and Technical Support	47	\$242,516	\$11,398,000
Total			\$14,551,000

4.3.2 Electronic Tool Operations and Maintenance Cost

As shown in Table 4-3, EPA will have ongoing annual costs to operate and maintain the necessary changes in the ICIS-NPDES system. Operations include accepting data from regulated entities, receiving data from authorized NPDES programs, and sending EPA data to the state authorized NPDES programs. Maintenance includes routine database refreshes, updates, and licensing. The annual cost of EPA activities newly required to support the rule are estimated at \$955,000.⁴³

As shown in Table 4-4, the analysis assumes states currently operating their own systems will bear an ongoing annual cost to manage transfer of data between their systems and EPA’s. This cost is based on an estimate of 1 full-time equivalent (FTE) of programmer/technical labor per state per year.⁴⁴ The analysis also assumes that each authorized NPDES program, whether they operate their own system or use EPA’s tools, will bear an ongoing annual cost to provide training and technical support to regulated entities. This cost is likely to vary by state. In comments on the proposed rule, states estimated the labor required for these activities would be from 0.3 to 2 FTEs per state per year.⁴⁵ To be conservative, the analysis uses the upper bound of this range and assumes 2 FTEs of programmer/technical labor per state per year. The total incremental annual cost to states for operations, maintenance, and support activities is estimated at \$14.6 million per year.

4.3.3 Other Implementation Costs

As part of updating the reporting process, authorized state NPDES programs and EPA will need to undertake several other implementation activities, in addition to upgrading electronic systems. Table 4-5 summarizes these costs, which were developed using assumptions discussed in the paragraphs below. Although many of these activities occur within the first year after the effective date of the rule, others take place later during rule implementation or recur intermittently. The

⁴³ Estimates for annual operations and maintenance taken from EPA’s DRAFT Clean Water Act Action Plan: Electronic Reporting Technical Evaluations, Prepared by Booz Allen, July 2010; escalated to 2014 dollars using the BLS Employment Cost Index for government workers.

⁴⁴ Based on comments on the proposed rule from the State of Pennsylvania.

⁴⁵ Based on comments from Colorado, Washington, Kansas, and South Dakota.

costs shown in Table 4-5 are undiscounted and account for recurrence only of certain activities (i.e., EPA oversight). Section 4.5 provides further details regarding assumptions about implementation timing and the impact of timing and discount rates on return on investment.

Cost Categories	EPA	Authorized NPDES Programs
Training Webinars	\$21,000 ^a	\$24,700
Initial Recipient Status Decisions	\$0	\$55,700
Waiver Criteria Development ^b	\$2,400	\$111,000
Implementation Plans	\$111,000	\$1,006,000
Modifying Memoranda of Understanding	\$0	\$111,000
Modifying Permits	\$62,200	\$1,161,000
EPA Oversight ^c	\$1,179,000	\$0
Total	\$1,376,000	\$2,469,000

^a Includes attendance by regional and headquarters staff, in addition to development cost.
^b Includes initial development only, not renewal.
^c Reflects undiscounted total cost of two rounds of oversight using assumptions discussed below.

Training Webinars

To ensure that state authorized NPDES programs are properly informed of the changes to the ICIS-NPDES system and the new data standards, EPA will develop and offer a 90-minute online training webinar for each phase of the implementation. The two webinars will require 100 hours total of EPA technical time to develop, at a total cost of \$5,800. State authorized NPDES programs will incur a cost of \$24,700 for the time required to attend the webinars (assuming three technical staff from each state attend each call). In addition, staff from each EPA region and headquarters will attend the webinars, at a total cost of \$15,200.

Initial Recipient Status

Under the final rule, NPDES-regulated entities will submit NPDES program data to the designated “initial recipient,” meaning the governmental entity, either the state or EPA, who first receives the NPDES program data. A NPDES program can initially elect to be the initial recipient for one or all of the NPDES data groups. This determination is an “opt-out” process for each authorized NPDES programs. Under this process, an authorized NPDES program must notify EPA within 120 days of the effective date of the final rule if it wishes EPA to be the Initial Recipient for a particular NPDES data group. If EPA receives no such notification, EPA will designate the state, tribe, or territorial NPDES program as the Initial Recipient for all NPDES data groups.

The analysis assumes that the initial recipient decision-making process will require five people in two meetings lasting two hours each, for a total of 20 hours of managerial time, for each authorized NPDES program. The total cost of these initial recipient decisions is \$55,700.

Waiver Criteria

The final rule provides NPDES programs with flexibility in how they grant temporary and/or permanent waivers from electronic reporting. Under the final rule, authorized NPDES programs will need to document and submit to EPA for approval their process for evaluating and approving temporary and permanent electronic reporting waivers from NPDES regulated entities. The analysis assumes that developing the waiver criteria for each authorized NPDES program will require 40 hours of managerial time. The total cost of waiver criteria development is \$111,000 to authorized programs, plus \$2,400 for EPA to develop waiver criteria for where EPA Regions administer the program. Authorized NPDES programs will also need to re-submit their waiver

process descriptions to EPA for review and approval on a five year cycle. The analysis conservatively assumes the cost of renewal would be the same as the cost of initial development.

Implementation Plans

Authorized NPDES programs will need to submit an implementation plan to EPA. These plans must include identifying: (1) all tasks for capturing and electronically processing facility and permit data; (2) all tasks for updating any state data systems; (3) technologies for electronic reporting systems and any necessary CROMERR approval; (4) technologies for transmitting and receiving Appendix A data to and from EPA; (5) schedule for updating state statutes, regulations, and NPDES permits; (6) schedule for training NPDES regulated entities on how to utilize electronic reporting systems; (7) roles and responsibilities; (8) necessary resources and commitments; and (9) alternative options for converting to electronic reporting (e.g., utilization of EPA services and systems like NetDMR or NeT) if the state continually misses its own scheduled milestones.⁴⁶ These implementation plans would need to be approved by the authorized NPDES Director and EPA.

The analysis assumes each authorized program will require 40 hours of managerial time to identify and document each of the nine details listed above, plus one hour for sign off by the authorized NPDES Director. These assumptions result in 361 hours per implementation plan at a cost of \$21,400 per authorized program. The total cost for all authorized programs to prepare implementation plans is \$1,006,000. In addition, the analysis assumes that EPA will spend 40 hours of managerial time to review and approve each implementation plan, for a total cost of approximately \$111,000.

Memoranda of Agreement

Authorized NPDES programs will need to update their existing Memoranda of Agreement with their Regional Administrator to incorporate electronic reporting requirements. The analysis assumes each authorized program will require 40 hours of managerial time to complete these updates. The total cost of these updates is \$111,000 to authorized programs.

Permit Modifications

As the rule is phased in, states and EPA regions will make minor modifications to permits to require electronic reporting (and, where applicable, remove language that explicitly requires paper reporting). The analysis assumes that making these minor modifications will require 5 minutes per permit. The total cost of these permit modifications is \$1,161,000 for authorized states and \$62,200 for EPA regions.

EPA Oversight

As discussed in Section 3.3, EPA will use its CWA authority and ICR to issue targeted individual notices requiring NPDES-regulated entities to utilize their NPDES program's electronic reporting system. EPA would likely undertake this oversight activity when an authorized state, tribe, or territory has less than 90% participation rate for one or more data groups. EPA will assess participation rates separately for individual permitted facilities and for facilities covered under general permits. EPA makes a number of assumptions in estimating the cost of oversight including:

⁴⁶ Temporary and permanent waiver approval processes can also be included in implementation plans, but are considered separately in this analysis.

- EPA will spend a total of 80 hours of technical labor to assess and report participation rates.
- EPA would then send letters to facilities that are not reporting electronically in specific states that do not initially meet the participation rate targets. These letters would each require 0.25 hours of managerial labor and 0.25 hours of clerical labor, for a cost of \$23.77 per letter including mailing costs (see Table 4-12).
- EPA would need to undertake this activity in five states for individual permitted facilities and ten states for facilities covered under general permits.⁴⁷
- Participation rates achieved in these states will be 75% for individual permitted facilities and 50% for facilities covered under general permits (such that 25% of individual permits and 50% of general permits will require letters).
- 20% of facilities will require a second letter, one year later, to achieve full participation.
- There will be two rounds of oversight letters: the first based on DMR participation rates during Phase 1 implementation and the second based on participation rates for Phase 2 data (e.g., program reports, NOIs).

Given these assumptions, the total cost of EPA oversight letters is \$1,179,000.

4.3.4 Total Costs

Table 4-6 presents the total implementation costs for both EPA and states, including implementation and operations and management. Specifically, authorized NPDES programs will incur approximately \$40.1 million dollars in implementation costs while EPA will incur \$11.1 million dollars for implementation. After implementation, EPA will spend \$955,000 annually to operate and maintain the electronic system while states will spend \$14.6 million annually for maintenance and support. As discussed in Section 4.3.3, while many implementation activities occur within the first year after the effective date of the rule, others take place later or recur intermittently. The costs shown in Table 4-6 are undiscounted and account for recurrence only of certain activities (i.e., waiver criteria and EPA oversight). Section 4.5 provides further details regarding assumptions about implementation timing and the impact of timing and discount rates on return on investment.

	Implementation	Annual Operations and Maintenance^a
States	\$40,119,000	\$14,573,000
EPA	\$11,079,000	\$955,000
Total	\$51,198,000	\$15,528,000

^a Includes undiscounted cost of renewing waiver criteria every five years

4.4 Regulated Entity and Authorized NPDES Program Savings and Costs Associated with Using the Updated Systems

Implementing the updated submittal process will change regulated entity and authorized NPDES program activities resulting in both savings and costs. Authorized NPDES programs will make minor permit modifications,⁴⁸ which will require the regulated entity to report electronically. Authorized NPDES programs will be required to electronically submit to EPA all data elements

⁴⁷ The analysis does not identify specific states where EPA would undertake these activities. Instead, it assumes the targeted states have average-sized populations of permitted facilities.

⁴⁸ <http://www.gpo.gov/fdsys/pkg/CFR-2009-title40-vol21/xml/CFR-2009-title40-vol21-sec122-63.xml>

identified in Appendix A, including forwarding to EPA data the authorized NPDES programs receive electronically from regulated entities. As each authorized NPDES program implements e-reporting systems meeting the minimum requirements, the updated data system will change the flow of NPDES data from the regulated entities and authorized NPDES programs to EPA such that duplicate data entry is eliminated. This section presents the derivation of the costs of generating and transferring the required data in electronic format from regulated entities to authorized NPDES programs and from authorized NPDES programs to EPA.

4.4.1 Regulated Entity Registration and Training Costs

As described in Section 3, regulated entities will be required to submit electronic reports, which will entail the registration and training requirements shown in Table 3-2. In addition, some small entities would need to acquire a new, business email address. The analysis assumes 10% of regulated entities would need to take this action during the registration process. Finally, regulated entities that use EPA (but not state) electronic tools and report less frequently than every 90 days will need to reset their password when they report. EPA makes the following assumptions regarding each registration and training activity:

- One manager and one technical staff member will each spend 20 minutes (0.33 hours) registering for an electronic account in CDX, for a cost of \$43.17;
- One manager will spend 11 minutes to complete and mail an ESA, for a cost of \$13.88, including postage (see Table 4-12);
- One manager and one technical staff member will each spend 1.7 hours engaging in online training to familiarize themselves with the electronic reporting process for DMRs, for a cost of \$220.18;
- One manager will spend 0.5 hours to acquire a new, business email address using a free email service, for a cost of \$37.06; and
- One manager and one technical staff member will each spend 3 minutes (0.05 hours) to reset their password, for a cost of \$6.48.

The estimated time required to complete the CDX registration and ESA application (including mailing time) is based on estimates from the Electronic Pre-Manufacturing Notice Proposed rule.⁴⁹ The estimated time for electronic DMR training is based on the length of EPA's NetDMR training, which is an online tutorial accessible on demand.⁵⁰

The total cost of regulated entity registration and training is estimated by summing the number of regulated entities undertaking each activity multiplied by the cost of that activity. In addition, while single accounts could be used for multiple permits, this analysis conservatively assumes there will be one technical and one managerial account for each permit, with the following exceptions:

- As described in Section 2, biosolids and pretreatment permits are issued to POTWs for monitoring sewage sludge or for accepting industrial waste along with domestic sewage, respectively. All POTWs are either combined or sanitary systems with registration and training costs covered under those subprograms. Therefore, the analysis does not assign separate registration and training costs to biosolids and pretreatment subprograms.

⁴⁹ Economic Analysis of the Premanufacture Notification Electronic Reporting Proposed Rule (U.S. EPA, 2008).

⁵⁰ <http://www.epa.gov/netdmr/about/training.html>

- For construction stormwater general permits, the analysis assumes 2.9 construction general permits per construction firm and one technical and one managerial account per firm, instead of per permit.
- Also for construction stormwater general permits, the analysis assumes 25% of regulated entities will use a hybrid paper/electronic reporting process, which is an option that authorized NPDES programs can employ under the final rule. Under the hybrid option, construction operators would complete an on-line construction stormwater general permit report, which simultaneously produces a paper copy of the report and electronically transmits a copy of the data from the report to the initial recipient. The construction operator would then sign and date the paper copy of the construction stormwater general permit report with a handwritten signature. The analysis assumes that construction operators using this hybrid approach would not incur electronic registration or ESA costs. Instead, they would incur a cost to print and mail their “wet ink” signature copy with each submission. The analysis assumes this cost is \$0.55 per submission, incorporating printing and postage.

Taking these factors into account, the total initial cost of regulated entity registration and training is estimated at \$21.2 million dollars. This total includes registration costs for regulated entities under EPA’s Vessels General Permit and Pesticides General Permit (9,125 pesticide applicators and 4,000 unique filers covering 63,000 vessels). These entities are already reporting electronically, but not with a CROMERR compliant tool. Under the rule, they would need to re-register using EPA’s new CROMERR compliant tool, but would not experience any additional costs or cost savings as a result of the rule.

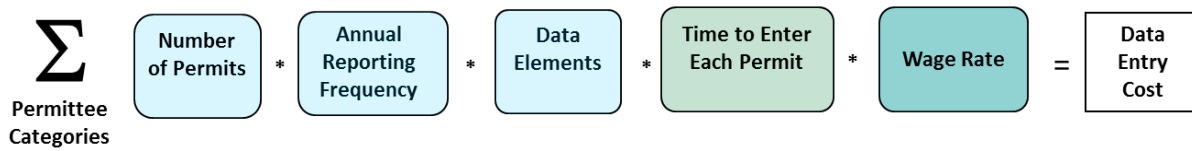
Those regulated entities that use EPA (but not state) electronic tools and report less frequently than every 90 days also would bear a recurring cost to reset their passwords. The total annual cost of this activity is estimated at \$852,000.

The analysis also considers that EPA might need to take over initial recipient status under 40 CFR 127.27(d) in one or more states. Permittees in these states would need to re-register in EPA’s electronic systems. Assuming that EPA takes this action in two average-sized states during or after rule implementation, the total re-registration cost to regulated entities would be \$817,000. This cost is undiscounted; Section 4.5 provides further details regarding assumptions about the timing of this activity.

4.4.2 Data Entry Costs

The final rule will increase the amount of information authorized NPDES programs must share with EPA. As noted elsewhere, regulated entities are currently submitting all of their required data (WENDB and Appendix A to 40 CFR 127) to their respective authorized NPDES programs. Under the rule, more data will be shared with EPA through use of ICIS-NPDES. The increase in data flowing to ICIS-NPDES, coupled with electronic reporting, has the effect of decreasing the number of data elements authorized NPDES programs are required to enter into ICIS-NPDES from paper DMRs and program reports, while increasing the number of regulated entities for which compliance and enforcement data will be required. As shown in Figure 4-1, estimating data entry costs relies on combining the number of permits with the number of data elements, the frequency at which those elements are reported, data entry time per data element, and wage rates for authorized NPDES program staff entering the data elements.

Figure 4-1: Estimating Data Entry Costs



Section 2 describes the number of permits and activity frequency. Table 4-7 shows the incremental change in data elements for each permit type and data family. The incremental number of data elements for certain data flows is negative because of the following factors:

- Appendix A eliminates certain previously required data elements;
- The number of data elements that are prepopulated or system generated and, thus, do not require manual data entry, has increased; and
- For NOIs, DMRs, and program reports, electronic reporting will allow data to flow directly into ICIS-NPDES, as opposed to being entered by hand.

Estimated data entry times were developed by surveying nine states with regard to the time requirements associated with entering various data elements. The following sections describe the state survey and the data crosswalk used to estimate the per data element time to each subprogram.

Table 4-7: Authorized NPDES Program Incremental Electronic Reporting by Data Family and Permit Type

Subprogram	Permit Type	Incremental Number of Data Elements							
		Permits ^a	Limits	Limit Sets	DMRs	Program Reports	Compliance Monitoring	Violations ^b	Enforcement Actions
Non-POTWs (Industrial, Agriculture, and Stormwater)									
Standard Industrial Dischargers	Individual Major	-17	1	3	-10	0	4	3	3
	Individual Nonmajor	-5	23	10	-10	0	4	8	3
	General Nonmajor	-23	0	0	-10	0	4	8	3
CWA §316(b) Filers	Cooling Water Intake Data	8 ^c	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Thermal Variance Data	3 ^c	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	CWA §316(b) Annual Reports	n/a	n/a	n/a	n/a	1	n/a	n/a	n/a
SIUs In Municipalities without Pretreatment Program^d		n/a	n/a	n/a	n/a	1	n/a	n/a	n/a
CAFOs	Individual Nonmajor	10	23	10	0	1	11	8	3
	General Nonmajor	-21	0	0	0	1	11	8	3
Industrial & Construction Stormwater									
Industrial	Individual Major	-14	1	3	-10	0	4	3	3
	Individual Nonmajor	-2	23	10	-10	0	4	8	3
	General Nonmajor	-12	0	0	0	0	4	8	3
Construction	Individual Major	-8	1	3	-10	0	4	3	3
	Individual Nonmajor	4	23	10	-10	0	4	8	3
	General Nonmajor	-20	0	0	0	0	4	8	3
Municipal Stormwater^e									
Phase I MS4s	Individual Major	-10	1	3	-10	-2	5	3	3
	General Nonmajor	-22	0	0	-10	-2	5	3	3
Phase II MS4s	Individual Nonmajor	7	23	10	0	-2	5	8	3
	General Nonmajor	-22	0	0	0	-2	5	8	3
POTWs and TWTDSs (may have a CSS or a SSS, may also file more than one report)									
POTWs with CSSs ^f	Individual Major	-1	1	3	-10	-2 ^f	5	3	3
	Individual Nonmajor	10	23	10	0	1 ^f	5	8	3
	General Nonmajor	-23	0	0	0	1 ^f	5	8	3
POTWs with SSSs only and TWTDSs ^f	Individual Major	-10	1	3	-10	-2 ^f	5	3	3
	Individual Nonmajor	1	23	10	0	1 ^f	5	8	3
	General Nonmajor	-23	0	0	0	1 ^f	5	8	3
POTW NPDES Report Filers									
Biosolids/ Sewage Sludge Report Filers	Individual Major	6 ^g	0	0	0	-2	1	8	0
	Individual Nonmajor	8 ^g	0	0	0	1	1	8	0
Pretreatment Program Report Filers	Individual Major	11 ^g	1	3	-10	-6	5	3	3
	Individual Nonmajor	13 ^g	23	10	0	1	5	8	3

a In addition to the permit data elements shown, the analysis includes data entry for 6 data elements for permitted facilities that must make minor permit changes.

b In addition to the violation data elements shown, the analysis includes data entry for 4 data elements associated with expanded SEV reporting for nonmajor facilities.

c Accounts for permit data elements specific to cooling water intakes and thermal variances. All other permit data elements are captured by standard industrial dischargers.

d These industrial facilities discharge to POTWs and are regulated by the NPDES program through EPA's General Pretreatment Regulations (40 CFR 403) and Categorical Pretreatment Standards (40 CFR 405 – 471). They do not have NPDES permits, but those in municipalities without pretreatment programs would report electronically under the rule.

e Nearly all Phase I MS4s are individually permitted facilities. For purposes of cost estimating, the analysis treats all individually permitted Phase I MS4s as majors and all Phase II MS4s as nonmajors.

f The analysis divides the total universe of POTWs into CSSs and SSSs and treats those that are only partially composed of CSSs as CSSs.

f Accounts for the submission of sewer overflow reports.

g Accounts for those permit data elements specific to the biosolids and pretreatment programs. All other permit data elements are captured by CSSs POTWs, SSSs POTWs, TWTDSs, or standard industrial dischargers.

State Survey

To characterize the cost of data entry, EPA surveyed nine states: four batch user states; two hybrid user states; and three direct user states. The states, listed in Table 4-8, were selected to provide a distribution across modes of submission (batch, hybrid, and direct) and size (based on numbers of NPDES permits). It is assumed that the unit burden estimates reported by these states are representative of what will be experienced by all states, territories, tribes, and EPA Regions to comply with the rule.

State	User Type
Maine	Batch
Minnesota*	Batch
Florida	Batch
Kentucky	Batch
Arkansas	Hybrid
Tennessee*	Hybrid
Hawaii	Direct
South Dakota	Direct
New York	Direct

*Represents user type at time of survey; user type has changed since the original survey.

The survey asked state representatives for the time required for the state to enter the information currently required for each data family described in Section 1 for the “typical” permit. The survey then presented the required data for each data family and asked how long it took to enter each of the data, again for the “typical” permit.

Data Entry Crosswalk

The time estimates collected in the state survey were first divided by the number of data elements in each data family to determine an average time per data family for each mode of ICIS-NPDES submission (batch, hybrid, and direct) and subprogram. These times were then averaged to determine the average data entry time per data element for each submission mode and subprogram. Finally, the average times were multiplied by state data clerk wage rates to determine the average state costs of data entry per data element. Table 4-9 displays the average data entry cost per data element by submission mode and subprogram.

NPDES User Type	Industrials and Stormwater						POTWs							
	Standard Industrial		CAFO		Stormwater		Biosolids		Pretreatment ^b		CSS		SSS	
	Min	Cost	Min.	Cost	Min	Cost	Min	Cost	Min	Cost	Min	Cost	Min.	Cost
Batch	5.45	\$3.04	2.99	\$1.67	5.45	\$3.04	2.61	\$1.45	5.42	\$3.02	5.27	\$2.93	5.47	\$3.05
Direct	2.49	\$1.39	2.34	\$1.30	2.57	\$1.43	2.61	\$1.45	2.55	\$1.42	2.45	\$1.36	2.50	\$1.39
Hybrid	1.62	\$0.90	1.73	\$0.96	1.62	\$0.90	2.61	\$1.45	1.59	\$0.89	1.53	\$0.85	1.62	\$0.90

^a Only one surveyed state, South Dakota, is authorized to administer the Biosolids program. Therefore, their time estimates are used for all states.

^b Cost and burden for SIUs is the same as those for Pretreatment program.

Initial Data Entry

In order for the electronic system to route regulated entity DMRs and program reports correctly, authorized NPDES programs will have to populate ICIS-NPDES with all of the required facility identification information, limits, and limit sets. While much of this information is already available electronically through ICIS-NPDES, states will have to provide the data elements already required to be reported by permittees but not already in ICIS-NPDES in electronic format. Some states may already have the additional data elements available electronically. However, for the purpose of this analysis, EPA assumed that states would incur costs associated with entering the data into ICIS-NPDES electronically to ensure the data meets the new data standards. This assumption results in a conservative estimate, and actual costs will be less for those authorized NPDES programs that have already entered this data into electronic systems. The cost of manual data entry is \$3.9 million dollars for state authorized NPDES programs and \$336,000 for EPA Regions.

Authorized NPDES Program Data Entry Costs

As discussed above, this analysis estimates authorized NPDES program data entry costs by combining the number of permits with the number of data elements, the frequency at which those elements are reported, data entry time per data element, and wage rates. Next, costs are aggregated by authorized NPDES program to distinguish between state and EPA Region authorized NPDES programs. The annual costs associated with state authorized NPDES programs and EPA Regions entering the programmatic data is \$3.9 million dollars and \$30,000, respectively. This estimate does not include the savings to authorized NPDES programs from data flows where the incremental data entry burden is negative (e.g., due to electronic reporting of NOIs, DMRs, and program reports received from the regulated universe).

Regulated Entity Costs for Electronic Reporting During Transition

EPA will phase in the electronic collection of NPDES program data on the following schedule.

Phase 1: EPA will electronically receive the basic facility and permit information from the authorized NPDES program, DMR information from all facilities, NOIs from general permit covered facilities for Federally-issued general permits, and biosolids program reports from facilities where EPA is the authorized biosolids program. EPA will also begin to electronically receive information from authorized NPDES programs regarding inspections, violation determinations, and enforcement actions.

Phase 2: EPA will electronically receive information from general permit covered facilities for state authorized NPDES program-issued general permits, biosolids program reports from facilities where the state is the authorized biosolids program, and all other program reports from all facilities.

As discussed in Section 3.3, during the initial implementation period (within five years after the effective date of the rule), a small number regulated entities might be required to submit data to their authorized state program both electronically and on paper. Regulated entity electronic reporting during the transition involves copying information from their paper DMR forms into the appropriate state electronic reporting system. The copy and paste process is expected to take ten seconds for each of the 12 Appendix A DMR data elements. The time estimate is multiplied by the private sector data clerk wage rate (see Table 4-2) to determine the cost per submission, which is then multiplied by the number of regulated entities affected and the frequency of submission. The calculation also incorporates the number of DMR forms per submission, which

is assumed to be four for major individual permits, two for nonmajor individual permits, and one for general permits (see Section 4.6 for further discussion of the impact of this assumption).

The analysis assumes that a maximum of 15% of regulated entities face conditions such that they could possibly be required to report both on paper and electronically (i.e., their permit conditions explicitly require paper reporting, the authorized state does not use its enforcement discretion, etc.). The actual number of regulated entities affected and the resulting cost will decrease over the course of the transition period, as permits are modified to require electronic, instead of paper reporting, either on the normal permit cycle or as a result of state implementation activities. The analysis assumes dual reporting will cease once the rule is fully implemented, five years after the effective date of the rule. The total undiscounted cost of electronic reporting during the transition period, is \$464,000. Once the rule is fully implemented, dual reporting will cease.

4.4.3 Other Ongoing Administrative Activities

Under the final rule, authorized states and EPA regions will bear costs for other minor activities in addition to ongoing data entry. These minor activities include forwarding biosolids permit information and notifications to SIUs.

States that are authorized for the NPDES program, but not the biosolids program, receive permit applications from POTWs that include the biosolids portion of the permit applications (Form 2S). These states must forward the biosolids portion of the application to the EPA region that is approved for the biosolids program. Although this is an existing requirement, forwarding the data becomes more crucial, given the need for the EPA regions to enter the biosolids permit data electronically. Therefore, the analysis includes the cost of this activity. It assumes each state compiles and forward the information monthly (less frequently in states expected to have fewer than one biosolids application per month), requiring one hour of clerical time, at a cost of \$36.47 including mailing costs (a large envelope, see Table 4-12). Given these assumptions, the total cost of forwarding biosolids permit information is \$15,000 per year for states that are authorized for the NPDES program, but not the biosolids program.

Under the final rule, for the pretreatment program, when the state or EPA is the Control Authority, they must notify the industrial users they directly control of the applicable electronic reporting requirements. The analysis assumes a single annual notice, in which 75% percent of SIUs are contacted via email and 25% are contacted by mailed letter. It assumes that the email notifications require 8 hours of clerical time total for each authorized program. It assumes that each individual letter requires 0.1 hours of clerical time, for a cost of \$3.89 including mailing costs (see Table 4-12). Given these assumptions, the total cost of SIU notifications is \$10,000 per year for authorized states and \$4,100 per year for EPA regions.

4.4.4 National Non-Compliance Report

One reason EPA is moving forward with the rule is to improve reporting on the efforts and efficacy of the NDPEs program to the public and Congress. EPA will use the programmatic information from authorized NPDES programs to develop a National Non-Compliance Report that will replace the Annual and Quarterly Non-Compliance Reports and the Semi-Annual Statistical Summary. The National Non-Compliance Report will require 36 hours of EPA technical time and 4 hours of managerial time, for an annual cost of \$2,300.

4.4.5 Total Annual Processing, Submission and Data Entry Costs of Using the Updated System

This section outlines the cost of the rule after the implementation period. All IT modification costs have been accounted for and all regulated entities have completed their registration and training requirements. The costs shown in Table 4-10 include the cost of operating, maintaining, and supporting the updated system, the recurring data entry cost incurred by authorized NPDES programs due to the programmatic data elements (the shift from WENDB to Appendix A and to having to enter information for nonmajor regulated entities), and the cost of other ongoing activities. There are no net ongoing data entry costs to regulated entities, but some entities bear an ongoing cost associated with password resets. Data entry and processing savings due to electronic reporting are discussed in the Section 4.4.7. As shown in Table 4-10, the annual (undiscounted) data entry and operating costs of the updated system are \$20.3 million.

Rule Components	EPA HQ	EPA Regions	States	Regulated Entities	Total
Electronic Reporting Operation, Maintenance, and Support	\$955,000		\$14,551,000		\$15,506,000
Required Programmatic Data Entry		\$30,000	\$3,857,000		\$3,887,000
Other Administrative Activities ^a	\$500	\$4,100	\$47,000	\$852,000	\$903,600
National Non-Compliance Report	\$2,300				\$2,300
Total for All Components	\$958,000	\$34,000	\$18,455,000	\$852,000	\$20,299,000

^a Includes biosolids permit data forwarding, SIU notifications, waiver criteria renewal (every five years), and password resets.

4.4.6 Total Costs of the Final Rule

Table 4-11 shows the initial cost of rule implementation. The (undiscounted) cost to regulated entities is \$22.4 million, and costs to EPA and state authorized NPDES programs to implement electronic reporting are \$11.4 million and \$44.0 million, respectively. These costs do not include the annual ongoing costs that continue after full implementation, shown in Table 4-10. While many of the costs shown in Table 4-11 are incurred within the first year after the effective date of the rule, they including certain recurring or ongoing activities that should cease once full implementation is achieved (e.g., dual reporting, re-registration). Section 4.5 provides further details regarding assumptions about implementation timing and the impact of timing and discount rates on return on investment.

Rule Components	EPA HQ	EPA Regions	States	Regulated Entities	Total
Reporting Tool Implementation	\$9,703,000		\$37,650,000		\$47,353,000
Other Administrative Activities ^a	\$1,308,000	\$67,500	\$2,469,000		\$3,844,500
Registration ^b				\$21,978,000	\$21,978,000
Initial Data Entry/Reporting During Transition		\$336,000	\$3,912,000	\$464,000	\$4,712,000
Total for All Components	\$11,011,000	\$404,000	\$44,031,000	\$22,442,000	\$77,888,000

^a See Table 4-5
^b Includes re-registration, assuming EPA would take over initial recipient status in two average-sized states under 40 CFR 127.27(d).

4.4.7 Submission and Processing Savings from Electronic Reporting

Regulated Entity Submission Savings

Once regulated entities establish their electronic accounts, they will experience savings due to the fact that they no longer have to mail their DMRs or program reports to the authorized NPDES program. Table 4-12 lists the components of mailing costs for regulated entities. Because the electronic reporting tools will include the ability to check for certain types of errors, the regulated entities will also see savings related to improved data quality and less need to revise and reenter their submissions. However, savings to regulated entities associated with improved data quality are not quantified in this analysis.

Table 4-12: Mailing Costs	
Cost Category	Cost
Page of Paper ^a	\$0.01
Envelope – Small ^b	\$0.04
Envelope – Large ^c	\$0.18
Postage – Small ^d	\$0.49
Postage - Large Envelope with 60 Pages inside ^d	\$2.87
Postage - Flat Rate Envelope ^d	\$5.75
a. Source: Office Depot brand standard white paper (March 2015) b. Source: Office Depot brand #10 security envelopes (March 2015) c. Source: Office Depot brand white 9" x 12" catalog envelopes (March 2015) d. Source: usps.com (March 2015)	

Specifically, regulated entities submitting program reports electronically will save on paper and postage. According to EPA program experts, the most expensive program reports, pretreatment program reports, average 100 pages. Electronic submission of pretreatment program reports, therefore, will save regulated entities \$6.95 per report. The analysis assumes that all other program reports average 1.5 pages, and require one standard size envelope and postage. Electronic submission of other program reports, therefore, will save regulated entities \$0.55 per report. The total annual savings for all regulated entities submitting program reports electronically is approximately \$60,000.

DMR submission savings are similar to program report savings except that the frequency of DMR submission is higher than that of program reports. According to EPA program experts, the average DMR form is five pages long. The analysis assumes four DMR forms per submission for major individual permits, two forms per submission for nonmajor individual permits, and one form per submission for general permits, for a total of five to 20 pages per submission (see Section 4.6 for further discussion of the impact of the number of DMR forms). DMRs are partially filled out by the regulated entity, sent to an independent laboratory for completion, and then sent to the authorized NPDES program. Therefore, electronic DMR submission will save two standard envelopes, two first class stamps and five to 20 pages of paper, saving a total of \$1.13 to \$1.31 per submission. As discussed below, the analysis assumes that EPA Regions and authorized NPDES programs currently mail pre-populated DMR forms to an estimated 50% of all NPDES regulated entities. DMR savings for these entities are \$1.07 per submission. Combining these two scenarios, average DMR savings are \$1.10 to \$1.19 per submission. As noted in Section 2, DMR submission rates vary from annual to monthly according to the subprogram and permit type.

Note that it is not possible to simply multiply the per regulated entity savings by the sub program universe to estimate total regulated entity submission costs savings due to the fact that reporting frequencies are different within and across subprograms. For example, major stormwater regulated entities submit DMRs monthly, multi-sector generals submit DMRs three times per year, and only a few construction stormwater covered facilities have DMR reporting requirements. Taking these factors into account, the total annual regulated entity savings from electronic DMR submission is \$862,000 for general permit regulated entities and \$533,000 for individual permit regulated entities, totaling \$1,395,000 per year.

Authorized NPDES Program Processing Savings

Electronic submission will also create savings for authorized NPDES programs by eliminating the cost of processing incoming DMRs and program reports, mailing out pre-populated DMRs and by reducing data entry. Currently, authorized NPDES programs receive these reports in the mail, staff open and inspect them to ensure they are filled out correctly, enter their information into the

state or EPA data system, and usually store them in a physical filing system. Excluding data entry, which is addressed in the next section, this process is estimated to take a data entry clerk 20 minutes per DMR form and 7.5 minutes per program report.⁵¹ Following rule implementation, those processing activities will be automated. As a result, authorized NPDES programs will save \$4.18 for every program report received electronically. They will save \$11.14 for every DMR form, or \$11.14 to \$44.56 per DMR submission after accounting for assumptions about the number of DMR forms per submission (see Section 4.6 for further discussion of the impact of the number of DMR forms). The total savings from electronic processing of DMRs and program reports is \$21.2 million and \$1.9 million for authorized NPDES programs and EPA, respectively.

EPA Regions and state authorized NPDES programs will also experience savings by no longer sending pre-populated DMR forms to regulated entities. Currently, EPA Regions and authorized NPDES programs mail DMR forms with regulated entity-specific limits to an estimated 50% of all NPDES regulated entities. Post rule, electronic copies of DMR forms will be available to all regulated entities, making them universally available and eliminating the need to mail the forms out. Table 4-13 details the per permit savings from eliminating the preparation and mailing of pre-populated DMR forms.

Type of Savings	Annual Frequency	Number of Pages	Cost	Annual Savings per Permit
Paper	12	5 to 20	\$0.01	\$0.06 to \$0.24
Envelopes	1	1	\$0.18	\$0.18
Postage	1	1	\$2.87	\$2.87
			Total	\$3.11 to \$3.29

Finally, authorized NPDES programs will have reduced data entry requirements for DMRs and program reports due to the rule. As noted above, the authorized NPDES program enters information from the paper NOIs, DMRs, and program reports into the system. Following implementation of the rule, authorized NPDES programs will receive electronic NOIs, DMRs, and program reports from the regulated entities, eliminating the need for data entry. The annual savings is \$23.5 million dollars and \$446,000 for authorized NPDES programs and EPA, respectively. Much of these savings result from elimination of data entry associated with DMRs and incorporate assumptions discussed above about the number of DMR forms per submission (see Section 4.6 for further discussion of the impact of the number of DMR forms).

Total Annual Savings after Full Implementation

Table 4-14 shows the aggregated annual savings estimated for regulated entities, states, and EPA Regions at full implementation.⁵² Regulated entities will save \$1.5 million dollars due to eliminating paper and mailing costs for DMRs and program reports. State authorized NPDES programs will save \$23.5 million dollars on data entry and \$21.2 million dollars on DMR and program report processing. EPA Regions will save \$446,000 on data entry and \$1.9 million on DMR and program report processing. Annual savings associated with eliminating the Annual Non-Compliance Report and Quarterly Non-Compliance Reports as well as the Semi-Annual

⁵¹ Estimates provided by EPA Office of Compliance.

⁵² Due to the complexity of the NPDES program, the total annual savings are not the sum of the unit savings multiplied by the total universe. Confounding elements include but are not limited to permit universe overlap, varying reporting requirements based on the permit type, number of DMR forms per submission, and the frequency of reporting. Supporting spreadsheets provide details on how these costs are aggregated.

Statistical Summary (SASS) for state authorized NPDES programs and EPA are \$872,000 and \$97,000, respectively. Across all changes called for in the final rule, annual savings total \$2.5 million for EPA, \$45.6 million for states, and \$1.5 million for regulated entities with a total annual savings of \$49.5 million (undiscounted).

Type of Savings	EPA	States	Regulated Entities	Total
Data Entry Savings	\$446,000	\$23,515,000	\$0	\$23,961,000
Processing Savings	\$1,920,000	\$21,243,000	\$1,454,000	\$24,617,000
Eliminating the ANCR, QNCR, and SASS	\$97,000	\$872,000	\$0	\$969,000
Total	\$2,463,000	\$45,630,000	\$1,454,000	\$49,547,000

EPA understands that there are barriers that states face to fully implementing electronic reporting for ICIS-NPDES requirements as well as other e-government initiatives. These barriers include technological and economic barriers such as high investment and maintenance costs and institutional and political barriers such as lack of legal bases, trust, and transparency (Savoldelli et al, 2014). As such, this rule helps to ameliorate such barriers and provide the framework by which States can move forward to realize the substantial benefits associated with e-reporting.

4.5 Summary: Implementation and Return on Investment

This section presents EPA’s planned phase in approach and return on investment. EPA will need to have upgraded its electronic tools before the effective date of the rule to allow for authorized NPDES programs to begin rule implementation and meet the rule implementation deadlines. Regulated entities will be required to register for electronic reporting one year after the effective date of the rule. Electronic reporting of Phase 1 information for NPDES regulated entities will also be required one year after the effective date of the rule. Phase 2 information reporting is required five years after the effective date of the rule. Table 4-15 provides complete details on the timing of these and other activities supporting rule implementation.

The analysis makes several conservative assumptions regarding the timing of certain activities. Specifically, the analysis assumes that all initial data entry, development of electronic tools, and regulated entity initial registration take place within one year of the effective date of the rule. In fact, some portion of each of these activities could take place later during the implementation period. For example, the cost of developing electronic tools specifically to support Phase 2 data could be spread out over the full five years leading up to the Phase 2 deadline. Initial data entry for and registration by regulated entities that only submit Phase 2 data would not be required until just before the deadline. Because it assumes that these costs are incurred at the start of the implementation period, the analysis below does not discount these costs and, therefore, may overestimate their present value, resulting in a lower estimate of total net savings.

Table 4-15: Rule Implementation Timing			
Timing (beyond effective date of the rule)	State Activities	EPA Activities	Regulated Entity Activities
Within 4 months	<ul style="list-style-type: none"> • Make Initial Recipient Decisions 	<ul style="list-style-type: none"> • Publish Initial Recipient Decisions 	
Within 9 months	<ul style="list-style-type: none"> • Enter Initial Data for Phase 1 	<ul style="list-style-type: none"> • Enter Initial Data for Phase 1 	
Within 1 year	<ul style="list-style-type: none"> • Implement Electronic Tools for Phase 1 Data • Prepare Implementation Plans and Waiver Criteria • Attend Webinars 	<ul style="list-style-type: none"> • Implement Electronic Tools for Phase 1 Data • Develop Waiver Criteria • Develop and Attend Webinars 	<ul style="list-style-type: none"> • Registration for Phase 1
Years 1 through 4	<ul style="list-style-type: none"> • Permit Modifications • Submit Phase 1 Data Electronically 	<ul style="list-style-type: none"> • Permit Modifications • Submit Phase 1 Data Electronically 	<ul style="list-style-type: none"> • Submit Phase 1 Data Electronically • Password Resets • Dual Reporting During Transition
1 year, 6 months		<ul style="list-style-type: none"> • Review/approve Implementation Plans • Report State eDMR Participation Rates (repeat annually as needed) 	
1 year, 9 months		<ul style="list-style-type: none"> • Oversight Notices to Regulated Entities (repeat annually as needed) 	
Within 2 Years	<ul style="list-style-type: none"> • Change Statutes 		
Year 3		<ul style="list-style-type: none"> • Assume EPA takes over initial recipient status in one state 	<ul style="list-style-type: none"> • Re-registration in one state where EPA takes over initial recipient status
Within 4 years, 9 months	<ul style="list-style-type: none"> • Enter Initial Data for Phase 2^a 	<ul style="list-style-type: none"> • Enter Initial Data for Phase 2^a 	
Within 5 years	<ul style="list-style-type: none"> • Implement Electronic Tools for Phase 2 Data^b 	<ul style="list-style-type: none"> • Implement Electronic Tools for Phase 2 Data^b 	<ul style="list-style-type: none"> • Registration for Phase 2^c
Year 5 onward	<ul style="list-style-type: none"> • Submit Phase 1 and 2 Data Electronically 	<ul style="list-style-type: none"> • Submit Phase 1 and 2 Data Electronically 	<ul style="list-style-type: none"> • Submit Phase 1 and 2 Data Electronically • Password Resets
5 years, 6 months		<ul style="list-style-type: none"> • Report State Participation Rates (repeat annually as needed) 	
5 years, 9 months		<ul style="list-style-type: none"> • Oversight Notices to Regulated Entities (repeat annually as needed) 	
Year 6		<ul style="list-style-type: none"> • Incorporate the New National Non-Compliance Report 	
Year 8		<ul style="list-style-type: none"> • Assume EPA takes over initial recipient status in one state 	<ul style="list-style-type: none"> • Re-registration in one state where EPA takes over initial recipient status
^a The analysis conservatively assumes the cost of all initial data entry occurs within 9 months. ^b The analysis conservatively assumes the cost of all electronic tool development occurs within 1 year. ^c The analysis conservatively assumes all initial registration costs occur within 1 year.			

To estimate the discounted value of future costs, EPA guidance states that discount rates of 3% and 7% should be used for economic analyses. Table 4-16 and Table 4-17 show the flow of savings and costs over time using each discount rate. As can be seen in Table 4-16 and Table 4-17, the annual savings exceed annual costs during the first year of electronic reporting (Year 1), with cumulative savings exceeding cumulative costs in the fourth year of electronic reporting (Year 4), under both the 3% and 7% discount rates.

As shown in Table 4-16, when using a 3% discount rate, the total annual savings at full implementation (five years after the effective date of the rule) is \$41.9 million dollars and total annual cost is \$17.6 million dollars, yielding a net annual savings of approximately \$24.3 million. The net savings over ten years is \$156 million dollars.

As shown in Table 4-17, when using a 7% discount rate, the total annual savings at full implementation is estimated at \$34.6 million, the total annual cost of the rule is \$14.5 million, yielding a net annual savings of approximately \$20.1 million. The net savings over ten years is \$114 million dollars.

Appendix D breaks out the costs and cost savings in more detail, showing how they accrue to approved NPDES programs, regulated entities, and EPA.

Table 4-16: Schedule of Savings and Costs (3% Discount Rate)

Year ¹	Annual Costs	Annual Savings	Annual Net Savings	Cumulative Total Costs	Cumulative Total Savings	Cumulative Net Savings
0	\$ 74,390,000	\$ -	\$ (74,390,000)	\$ 74,390,000	\$ -	\$ (74,390,000)
1	\$ 20,130,000	\$ 44,020,000	\$ 23,890,000	\$ 94,520,000	\$ 44,020,000	\$ (50,500,000)
2	\$ 19,730,000	\$ 42,770,000	\$ 23,040,000	\$ 114,240,000	\$ 86,790,000	\$ (27,450,000)
3	\$ 19,230,000	\$ 41,560,000	\$ 22,330,000	\$ 133,470,000	\$ 128,350,000	\$ (5,120,000)
4	\$ 18,200,000	\$ 40,380,000	\$ 22,180,000	\$ 151,670,000	\$ 168,740,000	\$ 17,070,000
5	\$ 17,590,000	\$ 41,900,000	\$ 24,310,000	\$ 169,260,000	\$ 210,640,000	\$ 41,380,000
6	\$ 17,510,000	\$ 41,500,000	\$ 23,990,000	\$ 186,760,000	\$ 252,130,000	\$ 65,370,000
7	\$ 16,590,000	\$ 40,290,000	\$ 23,700,000	\$ 203,350,000	\$ 292,420,000	\$ 89,070,000
8	\$ 16,330,000	\$ 39,110,000	\$ 22,780,000	\$ 219,680,000	\$ 331,530,000	\$ 111,850,000
9	\$ 15,540,000	\$ 37,970,000	\$ 22,430,000	\$ 235,230,000	\$ 369,510,000	\$ 134,280,000
10	\$ 15,170,000	\$ 36,870,000	\$ 21,700,000	\$ 250,400,000	\$ 406,380,000	\$ 155,980,000

Note that numbers in table have been rounded to the nearest ten thousand.
1. Years after the effective date of the rule.

Table 4-17: Schedule of Savings and Costs (7% Discount Rate)

Year ¹	Annual Costs	Annual Savings	Annual Net Savings	Cumulative Total Costs	Cumulative Total Savings	Cumulative Net Savings
0	\$ 74,390,000	\$ -	\$ (74,390,000)	\$ 74,390,000	\$ -	\$ (74,390,000)
1	\$ 19,380,000	\$ 42,370,000	\$ 22,990,000	\$ 93,770,000	\$ 42,370,000	\$ (51,390,000)
2	\$ 18,280,000	\$ 39,630,000	\$ 21,350,000	\$ 112,040,000	\$ 82,010,000	\$ (30,040,000)
3	\$ 17,150,000	\$ 37,070,000	\$ 19,920,000	\$ 129,190,000	\$ 119,080,000	\$ (10,110,000)
4	\$ 15,630,000	\$ 34,670,000	\$ 19,040,000	\$ 144,820,000	\$ 153,750,000	\$ 8,940,000
5	\$ 14,540,000	\$ 34,640,000	\$ 20,100,000	\$ 159,360,000	\$ 188,390,000	\$ 29,030,000
6	\$ 13,930,000	\$ 33,020,000	\$ 19,090,000	\$ 173,280,000	\$ 221,410,000	\$ 48,120,000
7	\$ 12,710,000	\$ 30,860,000	\$ 18,150,000	\$ 185,990,000	\$ 252,260,000	\$ 66,270,000
8	\$ 12,040,000	\$ 28,840,000	\$ 16,800,000	\$ 198,030,000	\$ 281,100,000	\$ 83,070,000
9	\$ 11,030,000	\$ 26,950,000	\$ 15,920,000	\$ 209,060,000	\$ 308,050,000	\$ 98,990,000
10	\$ 10,370,000	\$ 25,190,000	\$ 14,820,000	\$ 219,430,000	\$ 333,240,000	\$ 113,810,000

Note that numbers in table have been rounded to the nearest ten thousand.
1. Years after the effective date of the rule.

Figure 4-2 and Figure 4-2 show the return on investment over a ten year period using 3% and 7% discount rates, respectively. Dollar values are reported on the y-axis and the number of years after the effective date of the rule on the x-axis. Annual costs are represented as red bars and annual savings as blue bars. The cumulative savings/costs are the sum of current and all prior year savings/costs. As shown on both graphs, the cumulative savings begin to outweigh the cumulative costs during the fourth year of electronic reporting. Using a 3% discount rate, the return on investment over the ten year period is 62%. Using a 7% discount rate, the return on investment over the same period is 52%.

Figure 4-2: Electronic Reporting Savings/Costs Analysis – 3% Discount Rate

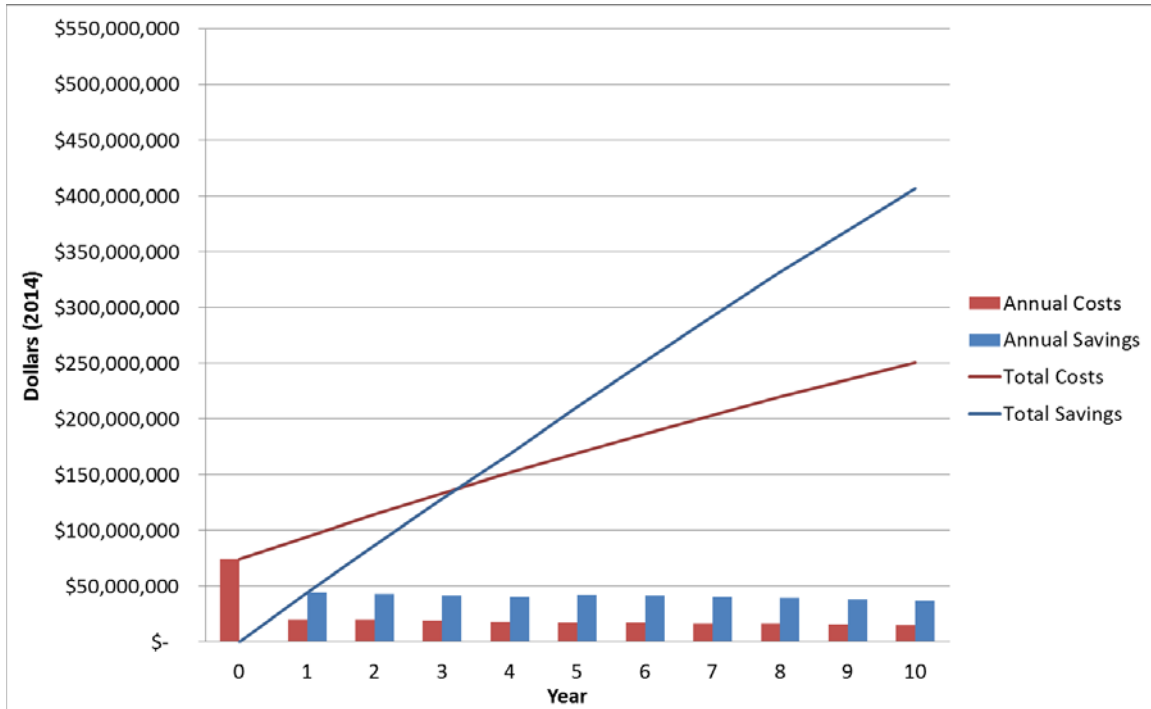
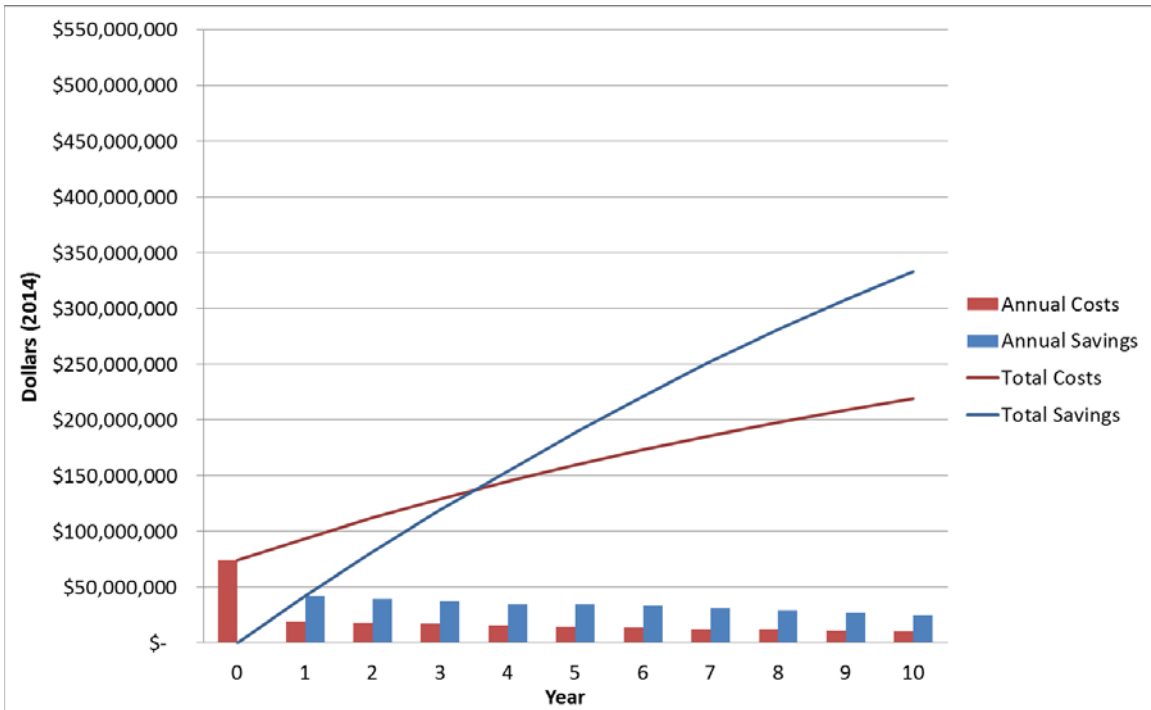


Figure 4-3: Electronic Reporting Savings/Costs Analysis – 7% Discount Rate



4.6 Changes from Proposed Rule Estimates and Sensitivity to Number of DMR Forms

Table 4-18 compares the costs and cost savings estimated in this analysis to corresponding values in the economic analysis for the proposed rule. The estimates of both initial implementation costs and ongoing annual costs have increased. At the same time, the estimates of ongoing annual savings have also increased. The result is a decrease in net savings at full implementation to authorized NPDES programs and regulated entities. Estimated cumulative net savings over ten years have also decreased. Annual and cumulative net savings, however, remain positive.

Table 4-18: Changes in Costs and Cost Savings from Proposed Rule			
Cost/Cost Savings	Proposed Rule Economic Analysis	Final Rule Economic Analysis	Percent Change
Undiscounted Initial Implementation Costs			
Reporting Tool Implementation	\$11,062,000	\$47,353,000	328.1%
Other Administrative Activities	\$989,000	\$3,844,500	288.7%
Registration	\$16,524,500	\$21,978,000	33.0%
Initial Data Entry/Reporting During Transition	\$15,878,000	\$4,712,000	-70.3%
Total Initial Implementation Cost	\$44,453,500	\$77,888,000	75.2%
Undiscounted Ongoing Annual Costs			
Electronic Reporting Operation, Maintenance, and Support	\$925,000	\$15,506,000	1576.3%
Required Programmatic Data Entry	\$2,376,000	\$3,887,000	63.6%
Other Administrative Activities	\$0	\$903,600	n/a
National Non-Compliance Report	\$2,200	\$2,300	4.5%
Total Ongoing Annual Cost	\$3,303,200	\$20,299,000	514.5%
Undiscounted Ongoing Annual Savings			
Data Entry Savings	\$20,104,000	\$23,961,000	19.2%
Processing Savings	\$15,695,000	\$24,617,000	56.8%
Eliminating the ANCR, QNCR, and SASS	\$861,000	\$969,000	12.5%
Total Ongoing Annual Savings	\$36,660,000	\$49,547,000	35.2%
Net Savings at Full Implementation (3% Discount Rate)			
Authorized NPDES Programs	\$28,700,000	\$22,600,000	-21.3%
Regulated Entities	\$1,200,000	\$500,000	-58.3%
EPA Regions	\$500,000	\$2,000,000	300.0%
EPA Headquarters	-\$800,000	-\$800,000	0.0%
10 Year Net Savings			
3% Discount Rate	\$220,330,000	\$155,980,000	-29.2%
7% Discount Rate	\$172,360,000	\$113,810,000	-34.0%

The changes in estimated costs and cost savings result from changes in the rule provisions from proposed to final, as well as changes in the underlying data and assumptions used in the economic analysis. The most significant of these changes are as follows:

- Revisions to the estimated cost of EPA reporting tool implementation: the final rule economic analysis uses the most recent estimates from EPA's Office of Enforcement and Compliance Assurance, Data Systems and Information Management Branch. These estimates reflect the latest understanding of the cost to EPA of the required electronic reporting system enhancements. In particular, although the number of data elements to be added has decreased since the proposed rule (see below), the estimated total cost to add data elements to EPA's database has increased. Because the analysis applies the same EPA database expansion cost to state database expansion, this change results in an increase in estimated initial implementation costs for states, as well as EPA.
- Additional activities supporting rule implementation: the final rule provides for a number of activities in support of initial implementation that were not considered in the economic

analysis for the proposed rule, including preparation of state implementation plans, waiver criteria, initial recipient decisions, memoranda of agreement updates and EPA oversight activities. These activities (identified as “Other Administrative Activities” above) increase the estimated initial implementation cost.

- Reduction in the potential for dual electronic/paper reporting during transition: the proposed rule required regulated entities in states with authorized NPDES program but no electronic reporting system to report electronically to EPA during the rule implementation period, in addition to their current paper reporting to the state. The final rule requires electronic reporting to states, rather than EPA, and reduces the circumstances under which dual reporting is likely to occur (see Section 3.3). This change to the dual reporting scenario reduces the initial implementation cost.
- Changes to the phase-in schedule: the final rule provides an additional three years for Phase 2 data collection. Under the final rule, full implementation does not occur until five years after the effective date versus two years under the proposed rule. When discount rates are applied, this change reduces net savings. It also means that dual reporting during the transition period continues for a longer timeframe (although this latter impact is more than offset by the change to the dual reporting scenario discussed above).
- Reduction in the number of required data elements: since the proposed rule, EPA has streamlined the number of data elements required by Appendix A to 40 CFR 127 and determined that a larger number of data elements can be pre-populated or system generated. This change reduces ongoing data entry costs.
- Inclusion of password reset costs: as discussed in Section 3.4.1, regulated entities that use EPA (but not state) electronic tools and report less frequently than every 90 days would bear a recurring cost to reset their passwords. Inclusion of this cost reduces the net savings to regulated entities, with the majority of the impact resulting from password resets by general permit covered industrial stormwater facilities. The analysis assumes all general permit covered industrial stormwater facilities will require password reset three times per year, which is likely an overestimate as not all of these facilities are required to submit that frequently.
- Inclusion of the full cost of electronic tool implementation by states: the economic analysis for the proposed rule assumed that some development of state electronic reporting systems would occur in the absence of the rule. Therefore, it attributed only 80% of the cost of state electronic tool implementation to the rule. To be conservative, the final rule economic analysis incorporates the full cost of state electronic tool implementation. This change increases the initial implementation costs.
- Inclusion of ongoing maintenance and support costs for states: as discussed in Section 4.3.2, the economic analysis for the final rule includes costs for authorized NPDES programs to manage data transfer to EPA and provide ongoing training and support to regulated entities. These costs are based on comments received from state regulatory agencies on the proposed rule. The economic analysis for the proposed rule did not include these costs. This change results in an increase in ongoing annual costs to states, with a corresponding decrease in annual net savings.
- Incorporation of multiple DMR forms per submission: the economic analysis for the proposed rule assumed one DMR form per DMR submission. This assumption was very

conservative because all facilities that submit DMRs submit at least one form and many facilities have multiple outfalls, entailing multiple DMR forms. The economic analysis for the final rule assumes four DMR forms per submission for major individual permits, two for nonmajor individual permits, and one for general permits. This assumption is still conservative (as discussed below), but results in a relatively large increase in ongoing data entry and processing cost savings. It also increases the cost of dual reporting during transition (although the latter impact is more than offset by the change to the dual reporting scenario discussed above). See below for further discussion of the assumption about the number of DMR forms per submission.

Other, less significant changes to the analysis since the proposed rule include the following:

- Escalating costs to 2014 (instead of 2012) dollars;
- Updating reporting frequencies to use the most recent data;
- Updating the permit universe to use the most recent data;
- Including additional categories of regulated entities (e.g., individually permitted industrial and construction stormwater facilities, entities covered under EPA's Vessels General Permit and Pesticides General Permit);
- Incorporating an ongoing percentage of facilities receiving temporary or permanent waivers from electronic reporting (see Section 4.1);
- Adding the cost for states to convert their electronic reporting system latitude and longitude to the newer, modern WGS84 coordinate system (see Section 4.3.1);
- Accounting for additional data entry associated with minor changes at permitted facilities (e.g., change in owner or operator name);
- Accounting for SEV reporting for nonmajor facilities;
- Accounting for electronic submission of CWA §316(b) annual reports;
- Accounting for electronic submission of pretreatment program reports from states and regions, in addition to pretreatment program reports from approved POTWs (see Section 2.11.2);
- Accounting for the cost of forwarding biosolids/sewage sludge permit information and making notifications to SIUs (see Section 4.4.3);
- Accounting for the option for construction stormwater general permit operators to report using a hybrid of electronic and paper reporting (see Section 4.4.1);
- Accounting for acquisition of a new business email address by some small entities (see Section 3.4.1); and
- Moving the biosolids/sewage sludge annual report to Phase 1 for facilities in states where EPA is the authorized biosolids program.

Number of DMR Forms per Submission

Due to the high submission frequency, DMRs account for the majority of ongoing data entry and processing cost savings. The quantity of DMR data submitted, and therefore the data entry savings to authorized NPDES programs, is directly proportional to the number of DMR forms. A portion of processing savings (specifically, printing costs and time for authorized NPDES program to process paper forms) is also directly proportional to the number of DMR forms. Therefore, the estimate of ongoing costs savings due to electronic reporting is highly sensitive to the number of DMR forms per submission.

As discussed above, all facilities that submit DMRs submit at least one form and many facilities have multiple outfalls, entailing multiple DMR forms. Based on data available in ICIS-NPDES, the average number of DMR forms per submission is six for major permits and three for minor

permits. To be conservative, and because the facilities currently in ICIS-NPDES could be above average in terms of monitoring requirements, the analysis assumed lower estimates: four DMR forms per submission for major individual permits and two for nonmajor individual permits. Because data for nonmajor general permits are limited, the analysis uses only one form per submission for these facilities.

The following alternate results illustrate the impact of these assumptions regarding DMR forms per submission. If the analysis used the strict averages based on data available in ICIS-NPDES (six forms per submission for major individual permits and two for nonmajor individual permit, retaining one form per submission for nonmajor general permits), the results would be as follows:

- Undiscounted ongoing annual savings would be \$54.8 million, an increase of 11% from the current estimate;
- Net savings to authorized NPDES programs at full implementation (assuming a 3% discount rate) would be \$26.8 million, an increase of 19% from the current estimate; and
- Ten year net savings (assuming a 3% discount rate) would be \$200.6 million, an increase of 29% from the current estimate.

If the analysis used one form per submission regardless of permit type (as in the economic analysis for the proposed rule), the results would be as follows:

- Undiscounted ongoing annual savings would be \$33.8 million, a decrease of 32% from the current estimate and a decrease of 8% from the estimate in the economic analysis for the proposed rule;
- Net savings to authorized NPDES programs at full implementation (assuming a 3% discount rate) would be \$9.5 million, a decrease of 58% from the current estimate and a decrease of 67% from the estimate in the economic analysis for the proposed rule; and
- Ten year net savings (assuming a 3% discount rate) would be \$20.7 million, a decrease of 87% from the current estimate and a decrease of 91% from the estimate in the economic analysis for the proposed rule.

References

Savoldelli, Alberto, Codagnone, C. and Misuraca, G. *Understanding the E-Government Paradox: Learning from Literature and Practice on Barriers to Adoption*, Government Information Quarterly 31, 2014, S63-S71.

Section 5. – Small Entity Analysis

5.1 Introduction

This section addresses the potential impacts of the final rule on small entities, which are limited by definition to NPDES regulated entities.⁵³ As described in previous sections, affected regulated entities will experience both savings and costs due to the rule. Specifically, they will incur costs to register with CDX or a similar data portal in order to transmit required data directly to ICIS-NPDES and establish an electronic signature agreement in order to use the data portal.

Additionally, some regulated entities will incur costs to: 1) participate in training on how to electronically report DMRs; 2) acquire a new, business email address; 3) intermittently reset their CDX password; and/or 4) report both electronically and on paper during the rule transition period. Following rule implementation, regulated entities will realize savings through eliminating mailing paper documents, such as DMRs and other required reports, to the authorized NPDES program. Because the electronic reporting tools will include the ability to check for certain types of errors, the regulated entities will also experience savings related to improved data quality and less need to revise and reenter their submissions. However, savings to regulated entities associated with improved data quality were not quantified in this analysis.

The small entity analysis considers the extent to which the total costs associated with the final rule represent a disproportionate burden on small entities. Section 5.2 outlines the Regulatory Flexibility Act (RFA) requirement for undertaking this analysis. Section 5.3 discusses the definitions of small entities used in this analysis. Section 5.4 describes the general methodology used to determine if the final rule results in significant economic impacts to a substantial number of small entities. Sections 5.5 through 5.8 calculate these impacts for different categories of NPDES regulated entities. Section 5.9 summarizes the results of the small entity analysis.

5.2 Impact on Small Entities

The Regulatory Flexibility Act (RFA) of 1980 (5 U.S.C. § 601 *et. seq.*) requires Federal agencies to assess the effects of regulations on small entities (including businesses, nonprofit agencies, and governments), and, in some instances, to examine alternatives to the regulations that may reduce adverse economic effects on significantly impacted small entities. Section 604 of the RFA, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, requires an agency to perform an initial and final regulatory flexibility analysis for a rule unless the Agency certifies under section 605(b) that the regulatory action will not have a significant economic impact on a substantial number of small entities. The RFA does not specifically define “a significant economic impact on a substantial number” of small entities.

5.3 Definitions of Small Entities

The RFA uses the definition of “small business” found in the Small Business Act, which authorizes the Small Business Administration (SBA) to define “small business” by regulation.

⁵³ While the final rule results in costs for regulated entities, states, and EPA, the small entity analysis addresses regulated entities only. By definition, states and EPA do not qualify as small entities. See section 5.3 for the definition of small entities.

SBA's definitions of “small business” vary by industry. This analysis uses the SBA’s definitions of small businesses for each industry which will likely be affected by the final rule.⁵⁴

To establish what constitutes a small business, SBA considers a number of economic and market characteristics that may allow a business of concern to exercise dominance in an industry. Size standards are based on criteria such as annual receipts or number of employees that represent a measure of these characteristics. These standards represent the largest size that a for-profit enterprise (together with its affiliates) may be and still qualify as a small business. In this analysis, the enterprise, together with its affiliates corresponds to the highest level domestic company in an individual entity’s corporate hierarchy, otherwise known as parent company.

The SBA small business size standards are expansive, classifying most businesses as “small.” For example, the default SBA size standard for manufacturing industries is 500 employees. According to the U.S. Census Bureau’s Statistics of U.S. Businesses, 252,737 of 256,363 manufacturing firms have fewer than 500 employees (U.S. Census Bureau, 2015). Therefore, at least 98.6% of manufacturing firms are classified as small businesses according to the SBA definition.

The RFA defines “small governmental jurisdictions” as governments of cities, counties, towns, school districts, or special districts with a population of fewer than 50,000 people. Many small governmental jurisdictions operate publicly-owned treatment works (POTWs), which would be impacted by the requirements of the final rule. The POTW’s “parent” is typically considered to be the municipality operating the POTW. In this analysis, both small businesses and small government jurisdictions are referred to as small entities and the highest level of ownership is referred to as the parent entity.

5.4 Methodology Overview

As mentioned above, the RFA considers whether a rule will have a significant economic impact on a substantial number of small entities. This analysis uses annual cost impact percentages to measure potential impacts on small entities. The cost impact percentage is defined as annual compliance costs resulting from the rule as a percentage of annual revenues or sales. For the purposes of determining small entity impacts, comparing annual compliance costs to annual revenue provides a reasonable indication of the magnitude of the regulatory burden relative to a commonly available and objective measure of a parent entity’s income. Where regulatory costs are less than 1% of a typical parent entity’s revenue the impacts of the regulation are likely to be minimal.

The compliance costs associated with the final rule include the one-time costs of registering with the Central Data Exchange (CDX), submitting an electronic signature agreement (ESA), training of staff to electronically report DMRs, and obtaining a new, business email address.⁵⁵ Additionally, compliance costs include resetting passwords and reporting both electronically and on paper during the rule transition period. Table 5-1 summarizes these costs. The specific costs a

⁵⁴ SBA's size standards can be found at:

https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf

⁵⁵ The registration cost would recur if EPA must take over initial recipient status in a given state under 40 CFR 127.27(d). The small entity analysis includes a recurrence of the registration cost to account for this possibility.

facility incurs will vary depending on the applicable permit requirements and type of permit under which a facility is covered.

Compliance Cost Type	Cost
CDX Registration	\$43.17
Electronic Signature Agreement (ESA)	\$13.88
Web Training for Electronically Reporting DMRs	\$0 - \$220.18
New Email Address	\$0 - \$37.06
Password Reset (per year)	\$0 - \$6.48
Electronic reporting during transition (per year)	\$0 - \$85.72

The final rule affects thousands of industry sectors (i.e., NAICS codes) including industrial, agricultural, commercial, and service sectors as well as local governments. The compliance activities and costs will vary among sectors depending on the permit requirements of individual facilities. It was not possible to conduct a detailed analysis for each sector individually. As a result, certain simplifying assumptions were made in the analysis of all sectors. For example, because EPA does not have information on each regulated entity, it was conservatively assumed that all facilities would incur the highest possible estimated compliance cost. A distinction is made, however, between POTWs and non-POTWs because POTWs can bear higher reporting costs because they can be subject to multiple subprograms. While regulated entities are also expected to incur savings under the rule from no longer mailing paper DMRs and program reports, these savings vary by subprogram and permit type (as opposed to by sector) and are small compared to the costs. Therefore, no savings were accounted for in the small entity analysis, although some regulated entities will likely receive some savings.

The per-facility compliance costs were annualized over ten years at 3% and 7% discount rates. This analysis estimates cost impact ratios in 2014 dollars and assumes the relationship between compliance costs and annual revenue in 2014 will be the same in future years. The annualized per-facility costs for each discount rate are presented in Table 5-2.

Permit Type	Total Annualized Compliance Cost	
	3% Discount Rate	7% Discount Rate
POTWs	\$103.94	\$120.01
Non-POTWs	\$91.74	\$105.66

This small entity analysis considers facilities in all of the industry sectors included in the NPDES permit universe. Based on querying EPA’s Facility Registry System (FRS) for the 6-digit NAICS codes of NPDES facilities, a total of 1,109 sectors were identified (U.S. EPA, 2010a).⁵⁶ The Online Tracking and Information System (OTIS), which has subsequently been replaced by Enforcement and Compliance History Online (ECHO), was then queried to count the number of facilities in ICIS-NPDES and PCS in each of these NAICS codes.

Employment and revenue data (necessary for the small entity analysis) available for each of these sectors varies; but fall into the general categories presented in Table 5-3 below. The categories were developed based on the small business definition and data sources used. Sector Category #1

⁵⁶ FRS was also queried for SIC codes of NPDES facilities. SIC codes were converted to their corresponding NAICS codes based on the U.S. Census concordances file. Where a SIC code corresponded to more than one NAICS code, all applicable NAICS codes were included.

includes all NAICS codes for which employment and revenue data are readily available from the U.S. Census Statistics of U.S. Businesses - the applicable small business threshold is based on either revenue or employment. Sector Category #2 includes municipalities - the small business threshold is defined in terms of population. Data from the U.S. Census of Governments were used to identify revenue. Sector Category #3 includes utilities - the definition of what constitutes a small business is based on the amount of electricity generated. Data from the Energy Information Administration and annual electricity prices were used to estimate small entity impacts. Agricultural sectors, for which U.S. Department of Agriculture's Census of Agriculture data are used, are grouped together in Sector Category #4. Finally, Sector Category #5 includes miscellaneous sectors for which it was not possible to identify a source of revenue and employment data. Note that facilities falling into Sector Category #5 were not considered in this analysis because employment and revenue data are not readily available. However, these sectors, which include financial institutions, public administration (excluding municipalities), and telecommunications, contain very few NPDES regulated entities.⁵⁷

Sector Category #	Category Description	# NAICS Codes in Category	# Facilities in Category
1	Sectors covered by U.S. Census data ^a	1,012	116,959
2	Municipalities operating POTWs	1	17,412
3	Utility sectors with small business definitions based on electricity generation	6	1,038
4	Agricultural sectors not covered by U.S. Census data	42	12,061
5	Miscellaneous Sectors with no usable data in U.S. Census (e.g., non-utility non-agricultural sectors with no data available from U.S. Census)	48	3,311
n/a	Facilities with no industry sector identified in OTIS/ECHO ^b	n/a	13,312
Total Number of NPDES Sectors		1,109	164,093
^a See Table 5-4 for more information about the types of industries included in Sector Category 1.			
^b See further discussion in Section 5.5.1.			

For each Sector Category listed in Table 5-3, different data sources were used to estimate relevant economic sizes, and then the impacts of the final rule on small entities. Although the data sources varied, the general methodology used to estimate the impacts on small entities across all sectors consisted of the following steps:

- Step 1: Identify the universe of affected NPDES facilities.
- Step 2: Characterize the relationships between facilities and their parents in the affected universe.
- Step 3: Estimate annual revenue of parent entities in the affected universe.
- Step 4: Identify small parent entities based on SBA definitions (see Section 5.2).
- Step 5: Develop parent entity annualized cost estimates, based on the number of facilities per parent estimated in Step 2.

⁵⁷ Information in PCS and ICIS-NPDES indicates that facilities in these sectors make up less than 2% of the active NPDES facility universe. Note, however, that this percentage includes some municipalities operating POTWs classified in public administration sectors, which are considered in Section 5.6. The percentage of facilities not covered by this analysis falls below 1% if public administration sectors are excluded from the count.

- Step 6: Calculate the parent entity cost impact ratio, defined as the annualized cost as a percentage of annual revenue, as a measure of regulatory burden.
- Step 7: Estimate the number and percentage of small parent entities with parent-level impact percentages in each of three categories: (1) less than 1% of annual revenue; (2) between 1% and 3% of annual revenue; and (3) greater than or equal to 3% annual revenue.

The specific assumptions and calculations used to estimate impacts for each category of facilities are described in more detail in the sections that follow. Section 5.5 considers the impacts on small entities in sectors for which information is available from the 2007 U.S. Census Statistics of U.S. Businesses (SUSB).⁵⁸ Section 5.6 estimates the impacts on small municipalities operating POTWs. Section 5.7 estimates the impacts of the rule on small parent entities operating electricity generation utility facilities. Section 5.8 characterizes the impacts on small parent entities in agricultural sectors.

It should be noted that fewer facilities are considered in the small entity analysis (164,093 unique facilities) than were estimated in Section 2 (393,359 unique facilities). Ideally, EPA would identify the parent company of each facility potentially affected by the final rule, determine the small entity status (small or not-small) of the parent entity, estimate compliance costs for each small parent entity, and then compare compliance costs to each small parent entity's annual revenue. However, due to the magnitude and diversity of facilities and sectors affected, this approach was not feasible. Because small entity status is based on industrial sector, the small entity analysis required data sources where industry sector (NAICS codes) of each facility could be identified. Although not a complete inventory of all potentially affected facilities, the universe of facilities in ICIS-NPDES and PCS at the time of the original analysis was used.⁵⁹ The assumption is made that facilities affected by the rule but not currently in ICIS-NPDES and PCS will experience small entity impacts similar to the facilities currently in ICIS-NPDES and PCS.

5.5 Census Sectors

The majority of NPDES sectors (1,012 of 1,109, or 91%) have revenue and employment data available from the U.S. Census Statistics of U.S. Businesses (SUSB) (U.S. Census Bureau, 2010c). The sectors with data available from SUSB are summarized in Table 5-4 below.

⁵⁸ It was not possible to use the 2012 U.S. Census Statistics of U.S. Businesses as not all of the necessary data (receipts) were available at the time of this analysis.

⁵⁹ Not all facilities covered by Concentrated Animal Feeding Operations (CAFOs) or industrial and construction stormwater permits are currently in ICIS-NPDES. It was assumed that, on a per facility basis, the estimated impacts on those facilities with information in ICIS-NPDES would be representative of the impacts on all regulated entities subject to the same subprogram.

Table 5-4: Sectors with Information in SUSB		
2-Digit NAICS	NAICS Description	# 6-Digit NAICS Codes
11	Agriculture, Forestry, Fishing and Hunting	13
21	Mining, Quarrying, and Oil and Gas Extraction	29
22	Utilities	3
23	Construction	31
31-33	Manufacturing	463
42	Wholesale Trade	64
44-45	Retail Trade	67
48-49	Transportation and Warehousing	54
51	Information	23
52	Finance and Insurance	24
53	Real Estate and Rental and Leasing	22
54	Professional, Scientific, and Technical Services	38
55	Management of Companies and Enterprises	2
56	Administrative and Support and Waste Management and Remediation Services	37
61	Educational Services	15
62	Health Care and Social Service	39
71	Arts, Entertainment, and Recreation	25
72	Accommodation and Food Services	15
81	Other Services (Except Public Administration)	48
Total Number of NPDES Sectors with Information in SUSB		1,012

The SUSB provides annual data for U.S. business establishments by geography, industry, and enterprise size, covering all business establishments with paid employees. The data provided annually includes counts of establishments, firms, employees, and total receipts. The data available from the SUSB can therefore be used to identify the number of small parent entities affected under the rule, construct annual revenue, and calculate cost impact ratios.

A sector's small business definition is based on either its annual revenue or the number of its employees, depending on the sector. The SUSB provides information tabulated by employment size or revenue size. For those sectors with revenue-based small business definitions, employment and revenue profiles were developed for each revenue size category. For sectors with employment-based small business definitions, profiles were developed for employment size categories. All tables and references in the sections below referring to revenue or employment size classes are mutually exclusive.

In a small entity analysis, compliance costs are estimated at the parent entity level, which requires aggregation of regulated entity costs to the parent entity level. However, it was not possible to identify the regulated entity to parent entity relationship for all affected sectors in this analysis due to the large number of potentially affected regulated entities overall. The SUSB data provide counts of both establishments and firms. Census defines an establishment as a single physical location where business is conducted or where services or industrial operations are performed; this definition corresponds to a facility or NPDES regulated entity. Census defines a firm as a business organization consisting of one or more domestic establishments in the same state and industry that are under common ownership or control. For the purposes of this analysis, it was assumed that a firm is equivalent to a parent entity.

Note that the estimates in this section were derived based on census data available at the NAICS-code level. Information from EPA data systems on individual NPDES facilities was used to construct the initial counts of NPDES permits by NAICS and SIC code. Thereafter, SUSB data were used to construct a distribution of NPDES facilities within the sector, which was then used

to calculate cost-impact ratios. The sections that follow discuss the method used to calculate the impacts on small parent entities, following the general method described in Section 5.4.

5.5.1 Identify Universe of Affected NPDES Facilities

Information in ICIS-NPDES and PCS was used to characterize the universe of affected NPDES facilities by 6-digit NAICS code. Counts of active NPDES regulated entities associated with each NAICS code and SIC code (where no NAICS was available⁶⁰) were obtained from EPA's Integrated Data for Enforcement Analysis (IDEA) system via OTIS/ECHO (U.S. EPA, 2010b). The following rules (in order of application) were used in assigning NAICS codes to facilities:

- Where a NPDES facility was associated with both a valid NAICS code and a valid SIC code, the NAICS code was chosen.
- Where a NPDES facility was associated with more than one valid NAICS or SIC code, the first NAICS or SIC code listed in the facility record was chosen.
- If a NPDES facility had a blank or invalid NAICS or SIC code associated with its NPDES permit, but had a NAICS or SIC code associated with another permit program in the facility record, it was assigned the NAICS or SIC code from the other permit program.
- If a NPDES facility had a blank or invalid NAICS or SIC code associated with its NPDES permit, and did not have a valid NAICS or SIC code associated with another permit program, it was excluded from the analysis (applies to 13,312 facilities, 7% of the total number of facilities).⁶¹
- Where only a valid SIC code was available, the SIC code was mapped to its corresponding NAICS code based on the concordance file from U.S. Census.⁶²
- Where an SIC code mapped to more than one NAICS code, the NAICS code with the largest number of facilities in ICIS-NPDES and PCS was used.
- Where a SIC code mapped to more than one NAICS code, and the corresponding NAICS codes had an equal number of facilities in ICIS-NPDES and PCS, or all corresponding NAICS codes had zero facilities in ICIS-NPDES and PCS, if the corresponding NAICS codes were the same at the 4- or 5-digit level, the 4- or 5-digit NAICS code was used. Otherwise, the first NAICS code listed was used.

Based on this method, 166,058 NPDES facilities were matched to 808 sectors. Note that the number of sectors is fewer than the 1,109 originally identified in Section 5.4 because: 1) only one NAICS code was mapped to each SIC code rather than all corresponding NAICS codes; and 2) only NPDES facilities active at the time of the original analysis were included in the counts by NAICS or SIC code. Note that impacts on facilities in NAICS codes corresponding to POTWs, utilities, and agriculture are discussed in Sections 5.6, 5.7, and 5.8, respectively, and are not included in the estimates presented in this section. Additionally, facilities in 48 non-agricultural non-utility NAICS codes for which information is not available from the SUSB are not

⁶⁰ The North American Industry Classification System (NAICS) has replaced the U.S. Standard Industrial Classification (SIC) system. However, for many NPDES facilities, only a SIC code is available in the facility record.

⁶¹ Note that many of the 13,312 facilities with no applicable NAICS or SIC code appear to be general permits. The assumption is made that facilities affected by the rule with no industry sector identified in ICIS-NPDES or PCS will experience small entity impacts similar to the facilities currently in ICIS-NPDES and PCS.

⁶² Available at http://www.census.gov/eos/www/naics/concordances/2002_NAICS_to_1987_SIC.xls

considered in this analysis (see further discussion in Section 5.4). Facilities in these groups were excluded from the count of NPDES facilities, bringing the total to 116,959.

The total number of NPDES facilities in each SUSB employment or revenue size class (depending on the sector) was determined by multiplying the total NPDES facility count by the number of establishments in the particular revenue or employment size class and dividing by the total number of establishments in that NAICS/revenue or employment size class. The results are shown in Table 5-5 and Table 5-6 below.

Table 5-5: NPDES Facility Distribution by Employment Size Class	
Employment Size Class	# NPDES Facilities
0-4 employees	15,350
5-9 employees	6,509
10-19 employees	5,759
20-99 employees	9,072
100-499 employees	5,480
500+ employees	13,755
Total	55,988
Note: Numbers may not sum due to rounding.	

Table 5-6: NPDES Facility Distribution by Revenue Size Class	
Revenue Size Class	# NPDES Facilities
<100,000	7,739
100,000-499,999	17,373
500,000-999,999	8,343
1,000,000-2,499,999	8,697
2,500,000-4,999,999	4,380
5,000,000-7,499,999	1,841
7,500,000-9,999,999	1,018
10,000,000-14,999,999	1,180
15,000,000-19,999,999	743
20,000,000-24,999,999	507
25,000,000-29,999,999	335
30,000,000-34,999,999	300
35,000,000-39,999,999	259
40,000,000-44,999,999	267
45,000,000-49,999,999	200
50,000,000-74,999,999	629
75,000,000-99,999,999	414
100,000,000+	6,551
Total	60,971
Note: Numbers may not sum due to rounding.	

5.5.2 Characterize Facility-Parent Relationships

Compliance costs and impacts are estimated at the parent entity level, where a parent entity may own one or more facilities. Therefore, it was necessary to estimate the number of NPDES facilities per parent, which was done by dividing the number of establishments by the number of firms in the SUSB data for each NAICS/employment or revenue size class combination. The

distribution of permits derived in Section 5.5.1 was then divided by this number to obtain a count of NPDES parent entities for each NAICS/revenue or employment size class combination. The counts of parent entities and average number of facilities per parent are shown in Table 5-7 and Table 5-8 below.

Table 5-7: NPDES Parent Entity Distribution by Employment Size Class		
Employment Size Class	# NPDES Parent Entities	Average # Facilities per Parent
0-4 employees	15,334	1
5-9 employees	6,471	1.01
10-19 employees	5,607	1.03
20-99 employees	7,830	1.16
100-499 employees	2,988	1.83
500+ employees	2,598	5.29
Total	40,828	1.37

Table 5-8: NPDES Parent Entity Distribution by Revenue Size Class		
Revenue Size Class	# NPDES Parent Entities	Average # Facilities per Parent
<100,000	7,735	1
100,000-499,999	17,353	1
500,000-999,999	8,316	1
1,000,000-2,499,999	8,563	1.02
2,500,000-4,999,999	4,204	1.04
5,000,000-7,499,999	1,696	1.09
7,500,000-9,999,999	883	1.15
10,000,000-14,999,999	969	1.22
15,000,000-19,999,999	566	1.31
20,000,000-24,999,999	358	1.42
25,000,000-29,999,999	244	1.37
30,000,000-34,999,999	154	1.95
35,000,000-39,999,999	139	1.86
40,000,000-44,999,999	113	2.36
45,000,000-49,999,999	96	2.08
50,000,000-74,999,999	271	2.32
75,000,000-99,999,999	147	2.82
100,000,000+	685	9.56
Total	52,492	1.16

5.5.3 Estimate Annual Revenue of Parent Entities

The SUSB data include the total annual receipts (defined as the revenue for goods produced, distributed, or services provided) for each NAICS/revenue or employment size class combination. The total annual revenue in SUSB was divided by the number of firms to determine average parent entity revenue for each NAICS/revenue or employment size class combination. In some cases total revenue was not provided in the SUSB data because doing so would disclose the operations of an individual establishment or firm, so it was necessary to extrapolate average revenue based on the available data. For sectors with revenue-based small business definitions, the midpoint of the revenue size class was substituted as the average revenue for the NAICS/revenue size class combination with missing data. For sectors with employment-based small business definitions, the following method was used to estimate average revenue for those NAICS/employment size class combinations where revenue was not disclosed:

1. Calculate the percent difference between average revenue in adjacent employment size classes based on all NPDES NAICS codes populated with average revenue information in the relevant adjacent employment class sizes.
2. For the NAICS/employment size class combination with no average revenue data, multiply the average revenue of the adjacent employment size class in that NAICS code by the average percent difference between the two adjacent employment size classes across all NPDES NAICS codes to estimate the average revenue.
3. Where average revenue is available for both adjacent employment size classes, average the two estimated average revenue figures to obtain an average revenue for the missing NAICS/employment size class combination. Where average revenue is available for only one of the adjacent size classes, use the estimated average revenue based on the size class with data.

Because the SUSB data reflects 2007 annual revenue, it was necessary to inflate the revenue to current dollars using one of several indices. The Industrial Production Index (IPI) measures the amount of industrial output from certain industries and was used to inflate annual revenue in mining (NAICS 21), utility (NAICS 22⁶³), and manufacturing (NAICS 31-33) sectors to 2014 dollars (U.S. Federal Reserve, 2015). The Producer Price Index (PPI) measures the average change over time in selling prices received by domestic producers of goods and services (BLS, 2015a); the PPI for farm products was used to inflate agricultural sector (NAICS 11⁶⁴) revenue to 2014 dollars.⁶⁵ All other sectors (NAICS 23: Construction and NAICS 42-81) were inflated based on the change in Gross Domestic Product (GDP) from 2007 to 2014, which is a measure of overall economic output (BEA, 2015).

5.5.4 Estimate Number of Small Parent Entities

As discussed in Section 5.3, the small business definition is based on annual receipts or the number of employees. Because the SUSB provides data broken down by employment and revenue size class, it was possible to identify the number of small firms in each sector. Note that where a small business definition fell in the middle of a size or revenue class, it was assumed that all parent entities in that revenue or employment size class were not small. For example, the small business definition for NAICS 114112 (Shellfish Fishing) is \$5.5 million in annual revenue; therefore it was assumed that all parent entities in the \$5,000,000 to \$7,499,999 revenue size class were not small. Using this method, 50,674 (97%) firms in sectors with revenue-based small business definitions and 39,012 (95%) firms in sectors with employment based small business definitions are small entities, for a total of 89,686 small entities.

5.5.5 Estimate Parent Entity Compliance Costs

It was assumed that all parent entities would incur an annualized per-facility compliance cost of \$91.74 at a 3% discount rate or \$105.66 at a 7% discount rate (see Section 5.4). The parent entity will incur this cost once for each NPDES facility it operates. Therefore, the annualized per-facility compliance cost was multiplied by the number of facilities per parent entity (derived in Section 5.5.2) to obtain the total annualized compliance cost to the parent entity. This calculation was made separately for each small NAICS/revenue or employment size class combination.

⁶³ Except for electricity-generating utilities, discussed in Section 5.7.

⁶⁴ Except for NAICS 111 and 112, discussed in Section 5.8.

⁶⁵ Except for logging (NAICS 113310), which used PPI industry information for logging (BLS, 2013b).

5.5.6 Estimate Cost Impact Ratios

The cost impact ratios for small parent entities operating NPDES facilities were estimated by dividing the total annualized compliance cost for that NAICS/revenue or employment size class (estimated in Section 5.5.5) by the parent entity average annual revenue for the NAICS/revenue or employment size class (estimated in Section 5.5.3). Based on this calculation, using the 3% discount rate, all of the small parent entities in sectors with Census information are expected to incur cost impacts of less than 1% of annual revenue (Table 5-9). Similarly, using the 7% discount rate, all of the small parent entities in sectors with Census information are expected to incur cost impacts of less than 1% of annual revenue (Table 5-10). Because the impacts are less than 1% they are considered to be minimal and no further action is required.

Table 5-9: Estimated Impacts of the Rule on Small Parent Entities of NPDES Facilities in Sectors with Census Information, 3% Discount Rate		
Cost-Impact Ratio Percentage	Small Parent Entity Count	% of Small Parent Entities
>3%	0	0%
1-3%	0	0%
<1%	89,686	100%
Total	89,686	100%

Table 5-10: Estimated Impacts of the Rule on Small Parent Entities of NPDES Facilities in Sectors with Census Information, 7% Discount Rate		
Cost-Impact Ratio Percentage	Small Parent Entity Count	% of Small Parent Entities
>3%	0	0%
1-3%	0	0%
<1%	89,686	100%
Total	89,686	100%

5.6 Municipalities Operating Publicly-Owned Treatment Works (POTWs)

Publicly-owned treatment works (POTWs) are most often operated by the municipality in which the facility is located. Therefore, municipalities are considered to be the parent entity for POTWs. The U.S. Census of Governments was used to characterize municipal revenue (U.S. Census Bureau, 2005a and 2005b). It characterizes the scope and nature of the nation's state and local governments; provides authoritative benchmark figures of public finance and public employment; classifies local government organizations, powers, and activities; and measures federal, state, and local fiscal relationships. Information is available by level of government and category of governmental activity. The Census of Governments provides the following definitions of these government types (referred to collectively as "local governments" throughout this section):

- **Municipal governments:** Organized local governments authorized in state constitutions and statutes and established to provide government for a specific concentration of population in a defined area; includes those governments designated as cities, villages, boroughs (except in Alaska), and towns (except in the six New England states, Minnesota, New York, and Wisconsin).
- **Township governments:** Organized local governments authorized in state constitutions and statutes and established to provide general government for areas defined without regard to population concentration; includes those governments designated as towns in

Connecticut, Maine (including organized plantations), Massachusetts, Minnesota, New Hampshire (including organized locations), New York, Rhode Island, Vermont, and Wisconsin, and townships in other states.

- **County governments:** Organized local governments authorized in state constitutions and statutes and established to provide general government; includes those governments designed as counties, parishes in Louisiana, and boroughs in Alaska.

For some POTWs, the most applicable parent entity was a township or county rather than a municipality (see further discussion in Section 5.6.1 below). The sections that follow discuss the method used to calculate the impacts on small local governments operating POTWs, following the general method described in Section 5.4.

5.6.1 Identify Universe of Affected NPDES Facilities

Information in ICIS-NPDES and PCS available at the time of the original analysis was used to identify POTWs. The universe of affected POTWs was estimated by querying ICIS-NPDES for active facilities with a “POTW” permit component and PCS for active facilities classified in SIC code 4952 (Sewerage Systems).⁶⁶ These queries generated a list of 17,412 POTWs affected under the rule.

In order to use the data available from the Census of Governments to construct municipal revenue and identify small municipalities, it was necessary to match each affected POTW to a local government on the Census list. As was discussed above, the U.S. Census provides data for municipalities, townships, and counties. The following order of preference was used to match POTWs to their corresponding Census local government:

- Compare the ICIS-NPDES or PCS city name as extracted by OTIS/ECHO to the Census list of municipalities.
- Compare the city name from ICIS-NPDES or PCS to the Census list of townships.⁶⁷
- Compare the facility name from the OTIS/ECHO facility report to the Census list of municipalities.
- Compare the facility name from ICIS-NPDES or PCS to the Census list of townships.⁶⁸
- Conduct internet searches on the facility name, city name, and/or ZIP code to match the facility to a Census municipality or township.⁶⁹
- Where no municipality or township match is possible, identify the corresponding Census County, based on the facility’s ZIP code.⁷⁰

Using this method, 17,329 of the 17,412 (99.5%) POTWs were matched to a census municipality, township, or county (see Table 5-11 below). Of the remaining 83 facilities with no Census match, 74 are located in U.S. territories, and it is assumed that the distribution of impacts on these facilities is comparable to the overall distribution. The remaining 9 facilities could not be matched because the information in their OTIS/ECHO facility reports was insufficient and were

⁶⁶ The POTW permit component flag is only available in ICIS-NPDES, so SIC 4952 was used to search for POTWs in PCS.

⁶⁷ Except for townships in the North Central Region (see explanation in Section 5.6.3).

⁶⁸ Ibid

⁶⁹ Ibid

⁷⁰ In some cases, the city identified in the OTIS/ECHO facility report corresponded to an unincorporated area not administered by a municipality or township, such that the county was the only local government applicable. In other cases, a POTW was operated by the county rather than a single municipality or township, so the corresponding county was the most appropriate match.

excluded from this analysis due to lack of data. The POTWs excluded from this analysis account for less than 1% of the total POTW universe, and are assumed not to affect the conclusions of the overall analysis.

Table 5-11: POTWs Matched to Census Municipalities, Townships, and Counties		
	Facility Count	% of Universe
POTWs matched to a Census Municipality	14,978	86%
POTWs matched to a Census Township	864	5%
POTWs matched to a Census County	1,487	9%
POTWs not matched to a Census Municipality, Township, or County (Not Considered in Analysis)	9	0.1%
POTWs located in a U.S. Territory (Not Considered in Analysis)	74	0.4%
Total Number of POTWs Identified in ICIS-NPDES and PCS	17,412	100%
Note: Numbers may not sum due to rounding.		

5.6.2 Characterize Facility-Parent Relationships

Compliance costs are estimated at the parent entity level, where a parent entity may own one or more facilities. Therefore, it was necessary to consider municipalities, townships, or counties operating multiple POTW facilities. Because the universe derived in Section 5.6.1 is based on a unique list of facilities matched to individual local governments, it was possible to determine the number of POTW facilities operated by each municipality, township, and county. The 17,329 matched POTWs corresponded to a total of 11,972 unique local governments, with the majority (9,616, or 80%) operating only one POTW. For the remaining 2,356 local governments, the actual number of facilities per parent based on the data pulled from OTIS/ECHO was used.

5.6.3 Estimate Annual Revenue of Parent Entities

Because the Census of Governments does not provide revenue data for individual municipalities, townships, or counties, it was necessary to develop a method to estimate these revenue based on available information. The Government Finance series in the 2002 Census of Governments provides information at the state level regarding the per capita revenue of municipalities, townships, and counties by population-size range (U.S. Census Bureau, 2005a; U.S. Census Bureau, 2005b). Note that for townships, U.S. Census only provides per capita revenue by population-size group for states in the Northeast Region (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont). For townships in the North Central Region (Illinois, Indiana, Kansas, Michigan, and Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin), per capita revenue were not available from Census. Therefore, the corresponding county was identified and used as the applicable local government for each affected POTW in these areas. There are no township local governments in states in regions other than the Northeast and North Central.

To estimate the annual revenue for each affected municipality, township, and county, the per capita revenue was multiplied by the population. The most current population data at the time of the original analysis was obtained from the U.S. Census 2009 Population Estimates (U.S. Census Bureau, 2010b).

It was necessary to inflate the 2002 revenue to 2014 dollars. The Gross Domestic Product (GDP) inflation index, which is a measure of overall economic output, was used to inflate 2002 revenue to 2014 dollars. Note that this method may overstate current revenue because the GDP is a measure of overall economic output and does not correlate directly to government revenue; however it was considered the best available index to use in this situation.

5.6.4 Estimate the Number of Small Parent Entities

As discussed in Section 5.3, "small governmental jurisdictions" are defined as the government of a city, county, town, school district or special district with a population of fewer than 50,000 people. Therefore, any local government operating a POTW serving a population of 50,000 or fewer was considered "small" for the purposes of this analysis. In Section 5.6.2, the 2009 population of each affected municipality, township, and county was identified from U.S. Census. Based on this information, 11,106 of the 11,972 (93%) local governments operating POTWs are small.

5.6.5 Estimate Parent Entity Compliance Costs

It was assumed that all POTWs would incur an annualized per-facility compliance cost of \$103.94 at a 3% discount rate or \$120.01 at a 7% discount rate (see Section 5.4). The affected municipality, township, or county will incur this cost once for each POTW it operates. Therefore, the annualized per-facility compliance cost was multiplied by the number of POTWs per local government (derived in Section 5.6.2) to calculate the total annualized compliance cost for each local government affected under the final rule.

5.6.6 Estimate Cost Impact Ratios

The cost impact ratios for small municipalities, townships, and counties operating POTWs were estimated by dividing the total annualized compliance cost for that entity (estimated in Section 5.6.5) by the annual revenue of the local government (estimated in Section 5.6.3). Based on this calculation, at a 3% discount rate, all but one of the 11,106 small local governments affected by the rule are expected to incur a cost impact of less than 1% of annual revenue (Table 5-12). Similarly, at a 7% discount rate, all but one of the 11,106 small local governments affected by the rule are expected to incur a cost impact of less than 1% of annual revenue (Table 5-13). In both cases, the cost impact is close to 1% and ranges from 1.07% to 1.24%.

Cost-Impact Ratio Percentage	Small Local Government Count	% of Small Local Governments
>3%	0	0%
1-3%	1	0.01%
<1%	11,105	99.99%
Total	11,106	100%

Cost-Impact Ratio Percentage	Small Local Government Count	% of Small Local Governments
>3%	0	0%
1-3%	1	0.01%
<1%	11,105	99.99%
Total	11,106	100%

5.7 Utilities

For six utility sectors, the small business definition is based on electricity generation rather than employment or annual revenue. Therefore, for these sectors, it was necessary to use an alternate method to determine the impacts of the final rule on small entities. The six sectors with small business definitions based on electricity generation are:

- 221111 Hydroelectric Power Generation
- 221112 Fossil Fuel Electric Power Generation
- 221113 Nuclear Power Generation
- 221119 Other Electric Power Generation
- 221121 Electric Bulk Power Transmission and Control
- 221122 Electric Power Distribution

The Energy Information Administration (EIA) maintains monthly and annual data on electricity generation and fuel consumption for U.S. power plants in its EIA-923 database. This information was used to identify small entities and to construct annual revenue of small utility companies owning operations with NPDES permits. Subsequent sections outline the method used to calculate the impacts on small electric utilities, following the general method described in Section 5.4.

5.7.1 Characterize the Universe of Affected NPDES Facilities

The universe of NPDES utility facilities was developed by identifying those power plants listed in the EIA-923 database with NPDES permits at the time of the original analysis. Identification was made by querying the Facility Registry System (FRS) for all EPA-regulated entities with information in EIA databases (based on the Emissions & Generation Resource Integrated Database (eGRID) and the Clean Air Markets Division Business System (CAMDBS) facility linkages) (U.S. EPA, 2010a). This list was then limited to NPDES facilities by using the FRS IDs of the EIA-linked facilities to identify those with a NPDES permit. This method yielded a total of 1,609 EIA power generating locations with NPDES permit IDs.

However, not all power plants in EIA databases are classified as a utility according to their primary NAICS code. For example, a manufacturing facility may generate electricity on site, but would be identified by a manufacturing NAICS code as its primary industrial classification. The impacts of the final rule on electricity generation facilities with primary industrial classifications other than those listed above, were therefore already analyzed in Section 5.5. To eliminate these facilities from the list of NPDES utility facilities, only those facilities with a utility NAICS or SIC code in their NPDES permit record were included in the universe, unless another program system (e.g., the Air Facility System (AFS)) classified the facility in a utility NAICS. Based on these assumptions, a total of 1,174 utilities with NPDES permits were considered in this part of the analysis.

The Federal Energy Regulatory Commission (FERC) defines a major utility in 18 CFR §101 as having, in each of the last three consecutive years, sales or transmission service exceeding one million megawatt-hours of total sales, 100 megawatt-hours of sales for resale, 500 megawatt-hours of power exchanges delivered, or 500 megawatt-hours of wheeling for others (deliveries plus losses). FERC defines a nonmajor utility as those utilities not classified as major with total sales in each of the last three consecutive years of 10,000 megawatt-hours or more. Therefore, any utility NPDES facility not meeting the FERC definition of a major or nonmajor utility was assumed to have its primary industrial classification in a different NAICS code and was not

included in the universe. Based on the FERC definitions of major and nonmajor utilities, the universe was narrowed to 1,016 facilities, as is shown in Table 5-14 below.

Utility Universe	# Facilities
EIA Power Plants with NPDES IDs	1,609
With Utility NAICS Code in EPA Records	1,174
Meets FERC Definition of a Utility	1,016

5.7.2 Characterize Facility-Parent Relationships

The EIA-923 database also provides information about the operator of every utility in the database. It was assumed that the “operator” was the parent entity for the utility universe. Based on this information, it was possible to characterize the facility-parent relationship for every utility facility. The 1,016 utility facilities corresponded to 541 parents, of which 395 parents (73%) operate only one facility. For the remaining 146 parents, the actual number of facilities per parent based on the EIA data was used.

5.7.3 Estimate Annual Revenue of Parent Entities

As stated above, the EIA-923 database provides information about the annual electricity generation of each power plant in the U.S (EIA, 2009). The EIA also provides information about the average retail price of electricity to ultimate customers by end-use sector, by state, on a monthly basis (EIA, 2015). Annual electricity generation and price were combined to generate an estimate of annual revenue. Specifically, a national average of 10.30 cents per kilowatt-hour, or \$103.00 per megawatt-hour (2014) was multiplied by the total electricity generation per parent to construct annual revenue for each parent entity.

For 69 utilities, information was not available from the EIA-923 database regarding annual electricity generation. However, the Form EIA-860 Annual Electric Generator Report provides information on the operational status of generators at electric plants owned and operated by electric utilities and non-utilities. At the time of the original analysis, of the 69 utility facilities with no electricity generation data, 64 were either retired, out of service, under construction, or planned. Because these facilities were not currently operational, they were not included in the universe of affected regulated entities and were not included in the small entity analysis. Of the remaining five utilities with no data, information about electricity generation was available for one facility from the 2007 EIA-923 database at the time of the original analysis. No information was available for the remaining four facilities with no electricity generation data. However, the utilities with missing data account for 0.4% of the NPDES utility facility universe, and are assumed not to affect the conclusions of the overall analysis. Therefore, annual revenue was estimated for 947 facilities corresponding to 472 parent entities. The number of facilities per parent ranged from 1 to 19.

5.7.4 Estimate the Number of Small Parent Entities

Small utilities are defined as those businesses primarily engaged in the generation, transmission, and/or distribution of electric energy for sale with the total electric output for the fiscal year not exceeding 4 million megawatt-hours. Based on this definition, and aggregating the individual facility net generation to the parent level, 341 of the 472 (72%) utility parent entities meet the definition of being a small parent entity.

5.7.5 Estimate Parent Entity Compliance Costs

It was assumed that all utilities would incur an annualized per-facility compliance cost of \$91.74 at a 3% discount rate or \$105.66 at a 7% discount rate (see Section 5.4). The affected parent entity will incur this cost once for each NPDES utility facility it operates. Therefore, the annualized per-facility compliance cost was multiplied by the number of utility operations per parent (derived in Section 5.7.2) to calculate the total annualized compliance cost for each utility parent entity affected under the final rule.

5.7.6 Estimate Cost Impact Ratios

The cost impact ratios for small parent entities operating NPDES utility facilities were estimated by dividing the total annualized compliance cost for each entity (estimated in Section 5.7.5) by their annual revenue (estimated in Section 5.7.3). Based on this calculation, at a 3% discount rate, all of the 341 small utility parent entities affected under the rule are expected to incur a cost impact of less than 1% of annual revenue (Table 5-15). Similarly, at a 7% discount rate all of the 341 small utility parent entities affected under the rule are expected to incur a cost impact of less than 1% of annual revenue (Table 5-16). Cost impacts of less than 1% are considered minimal, and no further action is required.

Table 5-15: Estimated Impacts of the Rule on Small Utility Parent Entities, 3% Discount Rate		
Cost-Impact Ratio Percentage	Small Parent Count	% of Small Parent Entities
>3%	0	0%
1-3%	0	0%
<1%	341	100%
Total	341	100%

Table 5-16: Estimated Impacts of the Rule on Small Utility Parent Entities, 7% Discount Rate		
Cost-Impact Ratio Percentage	Small Parent Count	% of Small Parent Entities
>3%	0	0%
1-3%	0	0%
<1%	341	100%
Total	341	100%

5.8 Agriculture

Forty-two agricultural sectors were identified as potentially affected under the final rule. The term “farming” includes all agricultural activities in the affected sectors, ranging from egg production to aquaculture. Data for these sectors are available from the USDA’s Census of Agriculture (USDA, 2007). The Census of Agriculture is conducted by the National Agricultural Statistical Service (NASS) every five years, and provides a complete count of U.S. farms including data on income and expenditures, land use and ownership, and production practices.

The readily available data from the Agricultural Census at the time of the original analysis on revenue and economic class⁷¹ distributions summarizes most of the affected 42 sub-sectors at a 4-digit NAICS level, with the Cattle Ranching and Farming industry disaggregated to 6-digit NAICS levels. Revenue and economic class data at the 6-digit level were requested from USDA's Statistics Division at the time of the original analysis for the Poultry and Egg Production sector (NAICS 1123) to meet the analytical needs of this small entity analysis.

For the agricultural sector, SBA sets size standards for small businesses by annual revenue assigned at the 6-digit NAICS sub-sector level. SBA's size standards differ from the revenue cutoff generally recognized by USDA, which defines \$350,000 in gross sales as its cutoff between small and midsize family farms (USDA, 2013).

With two exceptions (Cattle Feedlots and Chicken Egg Production sub-sectors), current SBA standards define a "small business" within the agricultural sector as an operation generating average revenue of less than \$0.75 million per year. The Cattle Feedlots sub-sector (NAICS 112112) has a small business definition of \$7.5 million per year. Within the Poultry and Egg Production sector, the Chicken Egg Production sub-sector (NAICS 112310) has a small business definition of \$15 million per year.

5.8.1 Identify Universe of Affected NPDES Facilities

Information in ICIS-NPDES and PCS available at the time of the original analysis was used to characterize the universe of affected NPDES facilities by NAICS code. Following the rules identified in Section 5.5.1, 12,061 facilities were matched to 42 6-digit NAICS codes. Table 5-17 summarizes the distribution of NPDES facilities across NAICS codes.

⁷¹ Economic class data are the classification of farms by the sum of market value of agricultural products sold and government payments (revenue). For example, one economic class classification is the number of farms with average annual revenue between \$25,000 and \$49,999. According to the Agricultural Census, government payments consist of payments received from the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP) plus government payments received from Federal, State, and local programs other than the CRP, WRP, FWP, and CREP, and Commodity Credit Corporation loans.

Table 5-17: NPDES Facility Distribution by NAICS Code		
NAICS	NAICS Description	# NPDES Facilities
1111	Oilseed and Grain Farming	173
1112	Vegetable and Melon Farming	9
1113	Fruit and Tree Nut Farming	10
1114	Greenhouse, Nursery, and Floriculture Production	35
1119 ^a	Sugarcane, Hay, and all Other Crop Farming	27
1121	Cattle Ranching and Farming	
112111	Beef Cattle Ranching and Farming	59
112112	Cattle Feedlots	3,339
112120	Dairy Cattle and Milk Production	3,208
1122	Hog and Pig Farming	1,826
1123	Poultry and Egg Production	
112310	Chicken Egg Production	399
112320	Broilers and Other Meat Type Chicken Production	1,512
112330	Turkey Production	29
112340	Poultry Hatcheries	24
112390	Other Poultry Production	574
1124	Sheep and Goat Farming	26
1125 ^b	Animal Aquaculture and other Animal Production	811
Total Number of NPDES Agricultural Facilities		12,061

^a Includes data on the following NAICS: 11193, 11194, and 11199.
^b Data are combined with NAICS 1129: Other Animal Production.

5.8.2 Characterize Facility-Parent Relationships

In a small entity analysis, compliance costs are estimated at the parent entity level, where a parent entity may own one or more facilities. For the purposes of this analysis, it was assumed that a farm is the rough equivalent of a facility. According to the 2008 USDA report titled Million-Dollar Farms in the New Century (USDA, 2008), in 2006 only 1.4% of U.S. farms identified themselves as part of a larger firm or corporation, thus, for the purpose of this analysis, it was assumed that all facilities in the agricultural sector are parent entities with single locations.

5.8.3 Construct Annual Revenue of Parent Entities

Agricultural Census data includes revenue (presented as the sum of total market value of agricultural products sold and government payments) tabulated by economic class and NAICS level. The total revenue of each economic class was divided by the number of farms in the economic class to estimate average revenue per economic class for each NAICS level.

Because the Census data reflects 2007 annual revenue, it was necessary to inflate the revenue to current dollars. The Producer Price Index (PPI) measures the average change over time in selling prices received by domestic producers of goods and services (BLS, 2015a). The agricultural sector revenue was inflated to 2014 dollars based on the PPI commodity information for farm products.

5.8.4 Identify Small Parent Entities

As mentioned above, in this analysis it was assumed that all facilities in the agricultural sectors are their own parent (i.e., single location). The distribution of small parent entities was estimated using the Agricultural Census data on the number of farms within each economic class. Farms with income of less than \$10,000 were not considered in this analysis as it is likely that these farms have alternate sources of income and therefore cannot be considered in this small entity

analysis with operations for which farming is the primary income source. In fact, USDA’s Economic Research Service identifies these farms as small noncommercial entities that “exist independently of the farm economy because their operators rely heavily on off-farm income” (USDA, 2010).

The percentage of farms with revenue below the small business threshold was then applied to the universe of NPDES facilities to estimate the number of affected NPDES facilities that are small parent entities as shown in Table 5-18.

NAICS	USDA NAICS Description	NPDES Facilities (#)	Small NPDES Facilities (#)	Small NPDES Facilities (%)
1111	Oilseed and Grain Farming	173	147	85%
1112	Vegetable and Melon Farming	9	7	82%
1113	Fruit and Tree Nut Farming	10	9	90%
1114	Greenhouse, Nursery, and Floriculture	35	29	84%
1119 ^a	Sugarcane, Hay, and all Other Crop Farming	27	26	95%
112111	Beef Cattle Ranching and Farming	59	57	97%
112112	Cattle Feedlots	3,339	3,105	93%
112120	Dairy Cattle and Milk Production	3,208	2,502	78%
1122	Hog and Pig Farming	1,826	895	49%
112310	Chicken Egg Production	399	399	100%
112320	Broilers and Other Meat Type Chicken	1,512	287	19%
112330	Turkey Production	29	5	17%
112340	Poultry Hatcheries	24	5	19%
112390	Other Poultry Production	574	511	89%
1124	Sheep and Goat Farming	26	25	97%
1125 ^b	Animal Aquaculture and other Animal Production	811	754	93%
Total Number of NPDES Agricultural Facilities		12,0611	8,763	73%^c

^a Includes data on the following NAICS: 11193, 11194, and 11199.
^b Data are combined with NAICS 1129: Other Animal Production.
Note: Farms with revenue of less than \$10,000 are not included in this analysis.

5.8.5 Calculate Parent Entity Compliance Costs

It was assumed that all parent entities would incur an annualized per-facility compliance cost of \$91.74 at a 3% discount rate, or \$105.66 at a 7% discount rate (see Section 5.2). The parent entity will incur this cost once for each NPDES facility it operates. For agricultural sectors, it was assumed that all agricultural entities are single locations; therefore the per-facility annualized compliance cost was apportioned once to each parent entity.

5.8.6 Estimate Cost Impact Ratios

The cost impact ratios for small parent entities were estimated by dividing the annualized compliance cost, (derived in Section 4.4.1), by the average revenue in each economic class for each NAICS code. The percent of small farms experiencing impacts of less than 1%, between 1% and 3%, and greater than 3% was then applied to the universe of small NPDES agricultural facilities to estimate the distribution of impacts within the affected agricultural sector. Based on this calculation, at a 3% discount rate, all of the 8,763 small parent entities in the affected agricultural sectors are expected to incur a cost impact of less than 1% of annual revenue (see Table 5-19). Similarly, at a 7% discount rate, all of the 8,763 small parent entities in the affected agricultural sectors are expected to incur a cost impact of less than 1% of annual revenue (Table 5-20). Cost impacts of less than 1% are considered minimal and no further action is required.

Table 5-19: Estimated Impacts of the Rule on Small Parent Entities of NPDES Agricultural Facilities, 3% Discount Rate

NAICS	USDA NAICS Description	Cost Impact of <1%		Cost Impact Between 1 and 3%		Cost Impact of >3%	
		#	%	#	%	#	%
1111	Oilseed and Grain Farming	147	100	0	0	0	0
1112	Vegetable and Melon Farming	7	100	0	0	0	0
1113	Fruit and Tree Nut Farming	9	100	0	0	0	0
1114	Greenhouse, Nursery, and Floriculture Production	29	100	0	0	0	0
1119 ^a	Sugarcane, Hay, and all Other Crop Farming	26	100	0	0	0	0
112111	Beef Cattle Ranching and Farming	57	100	0	0	0	0
112112	Cattle Feedlots	3,105	100	0	0	0	0
112120	Dairy Cattle and Milk Production	2,502	100	0	0	0	0
1122	Hog and Pig Farming	895	100	0	0	0	0
112310	Chicken Egg Production	399	100	0	0	0	0
112320	Broilers and Other Meat Type Chicken Production	287	100	0	0	0	0
112330	Turkey Production	5	100	0	0	0	0
112340	Poultry Hatcheries	5	100	0	0	0	0
112390	Other Poultry Production	511	100	0	0	0	0
1124	Sheep and Goat Farming	25	100	0	0	0	0
1125 ^b	Animal Aquaculture and other Animal Production	754	100	0	0	0	0
Total Number of NPDES Agricultural Facilities		8,763	100	0	0	0	0

^a Includes data on the following NAICS: 11193, 11194, and 11199.
^b Data is combined with NAICS 1129: Other Animal Production.
 Note: The estimated impacts on entities in the agricultural sector does not include a potential adjustment for residential/lifestyle and retirement farms.

Table 5-20: Estimated Impacts of the Rule on Small Parent Entities of NPDES Agricultural Facilities, 7% Discount Rate

NAICS	USDA NAICS Description	Cost Impact of <1%		Cost Impact Between 1 and 3%		Cost Impact of >3%	
		#	%	#	%	#	%
1111	Oilseed and Grain Farming	147	100	0	0	0	0
1112	Vegetable and Melon Farming	7	100	0	0	0	0
1113	Fruit and Tree Nut Farming	9	100	0	0	0	0
1114	Greenhouse, Nursery, and Floriculture Production	29	100	0	0	0	0
1119 ^a	Sugarcane, Hay, and all Other Crop Farming	26	100	0	0	0	0
112111	Beef Cattle Ranching and Farming	57	100	0	0	0	0
112112	Cattle Feedlots	3,105	100	0	0	0	0
112120	Dairy Cattle and Milk Production	2,502	100	0	0	0	0
1122	Hog and Pig Farming	895	100	0	0	0	0
112310	Chicken Egg Production	399	100	0	0	0	0
112320	Broilers and Other Meat Type Chicken Production	287	100	0	0	0	0
112330	Turkey Production	5	100	0	0	0	0
112340	Poultry Hatcheries	5	100	0	0	0	0
112390	Other Poultry Production	511	100	0	0	0	0
1124	Sheep and Goat Farming	25	100	0	0	0	0
1125 ^b	Animal Aquaculture and other Animal Production	754	100	0	0	0	0
Total Number of NPDES Agricultural Facilities		8,763	100	0	0	0	0

^a Includes data on the following NAICS: 11193, 11194, and 11199.
^b Data is combined with NAICS 1129: Other Animal Production.
 Note: The estimated impacts on entities in the agricultural sector does not include a potential adjustment for residential/lifestyle and retirement farms.

5.9 Summary

Small entity impacts were estimated for the following sectors:

- Industrial sectors;
- POTWs operated by municipalities;
- Electricity generating utilities; and,
- Agricultural sectors.

For all small entities affected by the final rule, using a 3% discount rate, impacts of less than 1% are incurred by 108,035 of 108,036 (99.99%) small entities; impacts between 1% and 3% are incurred by 1 of 108,036 (.01%) small entities; and impacts of greater than 3% are incurred by 0 small entities (see Table 5-21). Examining each sector individually, impacts of greater than 1% are only incurred by municipalities operating POTWs. The same (one) POTW is estimated to experience impacts between 1% and 3% when a 7% discount rate is used (see Table 5-22). Impacts to all other sectors remain less than 1% of annual revenue.

While impacts of greater than 1% are estimated to be incurred due to the rule, impacts of greater than 1% are incurred by far fewer than 100 small entities and considerably less than 20% of all small entities for all sectors and for each sector individually. Therefore, following EPA guidance on assessment of the rule's direct adverse impact on any small entities, the rule is not expected to significantly impact a substantial number of small entities (USEPA, 2006).

Table 5-21: Estimated Impacts of the Rule on Small Parent Entities of NPDES Facilities, 3% Discount Rate						
Category of Sector Description	Cost Impact of <1%		Cost Impact Between 1 and 3%		Cost Impact of >3%	
	#	%	#	%	#	%
Sectors covered by U.S. Census data	87,826	100	0	0	0	0
Municipalities operating POTWs	11,105	99.99	1	0.01	0	0
Utility sectors	341	100	0	0	0	0
Agricultural sectors	8,763	100	0	0	0	0
Total	108,035	99.99	1	0.01	0	0
Note: The estimated impacts on entities in the agricultural sector does not include a potential adjustment for residential/lifestyle and retirement farms.						

Table 5-22: Estimated Impacts of the Rule on Small Parent Entities of NPDES Facilities, 7% Discount Rate						
Category of Sector Description	Cost Impact of <1%		Cost Impact Between 1 and 3%		Cost Impact of >3%	
	#	%	#	%	#	%
Sectors covered by U.S. Census data	87,826	100	0	0	0	0
Municipalities operating POTWs	11,105	99.97	1	0.01	0	0
Utility sectors	341	100	0	0	0	0
Agricultural sectors	8,763	100	0	0	0	0
Total	108,035	99.99	1	0.01	0	0
Note: The estimated impacts on entities in the agricultural sector does not include a potential adjustment for residential/lifestyle and retirement farms.						

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Section 6. – Benefits

6.1 Introduction

The final rule will result in more timely, consistent, accurate, and easily accessed data. These data will improve the ability of existing state and federal programs to target the most serious water quality and compliance problems, thus supporting EPA's goal of protecting the nation's waters. Furthermore, EPA expects that because obtaining facility-specific information electronically is more efficient than current reporting, data entry, and other work processes, significant savings will be realized by regulated entities, authorized NPDES programs, and EPA. Specifically, updating the submittal process by implementing electronic reporting is expected to reduce data entry costs for authorized NPDES programs and reduce paper and mailing costs for regulated entities and EPA Regions. It will also help reduce data entry errors, which will reduce the need for processing corrections and reentering data. Additionally, improved NPDES information will be available throughout the U.S. because authorized NPDES programs will be required to enter the required data into ICIS-NPDES for both major and nonmajor NPDES regulated entities. The electronic information flow will allow EPA and authorized NPDES programs to manage the NPDES program more efficiently. The public will benefit through increased access to more complete and timely NPDES information. This section discusses the benefits associated with operational efficiency gains that EPA, authorized NPDES programs, regulated entities, and the public will experience as a result of the rule, as well as improved NPDES information and better implementation of EPA programs.

6.2 Savings due to Electronic Reporting

As discussed in Section 4, the rule is expected to result in overall savings. Post implementation, regulated entities will avoid paper and mailing costs as a result of switching to electronic reporting, and will save time on data entry as a result of the built in error detection tools. Authorized NPDES programs will experience reduced costs of data entry and processing of paper forms due to the updating of the reporting process. Note that the savings presented in this section are the total gross savings that regulated entities and authorized NPDES programs are projected to experience due to the rule. Net savings - savings remaining after all costs are accounted for - are presented in Section 4. Also note that the analysis makes no assumptions about how states might redistribute the resources represented by these savings; it merely quantifies them as an economic benefit.

6.2.1 Processing Savings

Electronic reporting will eliminate paper and mailing costs associated with DMRs, NOIs, and program reports for regulated entities. This change is expected to produce annual savings of \$1.5 million dollars to regulated entities following rule implementation. Additionally, use of electronic versions of pre-populated DMR forms and eliminating processing of paper DMRs and permits will save state authorized NPDES programs and EPA Regions \$21.2 million and \$1.9 million annually, respectively.

6.2.2 Data Entry (NOIs, DMRs, and Program Reports) Savings

With existing paper submissions, authorized NPDES programs must manually enter information submitted by regulated entities either into their own data system, which is then transferred to ICIS-NPDES, or directly into ICIS-NPDES. Under the final rule, information submitted electronically by regulated entities will flow directly into the data system of the appropriate

authorized NPDES program, or into ICIS-NPDES. Additionally, some data elements will be pre-populated in ICIS-NPDES (e.g., permit status, limit type). These submission updates will substantially reduce the data entry costs associated with information from NOIs, DMRs, and program reports. However, authorized NPDES programs will still be responsible for entering the data elements they generate (e.g., permit data elements, compliance monitoring data elements).

Estimated data entry savings to authorized NPDES programs and EPA Regions following rule implementation are \$23.5 million and \$446,000 annually, respectively, due to electronic reporting.

6.2.3 Eliminating ANCR, QNCR, and SASS

The final rule will also eliminate regulatory requirements for authorized NPDES programs to submit the Annual Non-Compliance Report (ANCR) the Quarterly Non-Compliance Report (QNCR), and the Semi-Annual Statistical Summary Report (SASS), as these activities will be completed based on the information already in the system. States and EPA Regions are expected to save \$872,000 and \$97,000, respectively, due to elimination of the ANCR, QNCR, and SASS.

6.2.4 Total Savings

In total, regulated entities, states, and EPA Regions are expected to experience \$49.5 million in annual savings due to the final rule, as summarized in Table 6-1.

Type of Savings	EPA	States	Regulated Entities	Total
Data Entry Savings	\$446,000	\$23,515,000	\$0	\$23,961,000
Processing Savings	\$1,920,000	\$21,243,000	\$1,454,000	\$24,617,000
Eliminating the ANCR, QNCR, and SASS	\$97,000	\$872,000	\$0	\$969,000
Total	\$2,463,000	\$45,630,000	\$1,454,000	\$49,547,000

6.3 Improved NPDES Information

EPA has concluded that the final rule will deliver more timely, consistent, and accurate information to EPA’s data system. These changes will result in access to better NPDES information for all stakeholders, which in turn will improve understanding and awareness of the provision and distribution of information about NPDES covered discharges. The newly available information will improve the ability of EPA, authorized NPDES programs, and the public to make well-informed decisions relating to the NPDES program. For example, as a result of the rule, complete information describing effluent discharges and the applicable limits and limit sets will be available in ICIS-NPDES for major and nonmajor permits. Prior to the rule, complete information was only required to for major permits.

Currently, the public has limited information regarding a substantial portion of the NPDES regulated universe (e.g., discharge monitoring data and permit limits and limit sets are not required to be entered into EPA data systems for nonmajor regulated entities). Access to more complete and more accurate NPDES data will provide the public with a greater understanding of the sources of water pollution in their communities. The public will also benefit from greater transparency regarding the compliance status of the dischargers and the enforcement responses taken by the states and EPA. Electronic reporting by NPDES regulated entities will also increase the timeliness of the information available to the public.

Improved NPDES data can significantly improve EPA's knowledge of the regulated community; such knowledge is essential in problem identification and in the development of sound regulations, guidance, and policy. In addition, the information will reflect the performance of state NPDES programs in achieving the goals and objectives of the CWA. A critical aspect of EPA's ability to oversee NPDES programs is adequate data with which to manage authorized NPDES programs. Previously, EPA could not ensure this oversight due to insufficient information. By requiring electronic reporting by NPDES regulated entities and the additional compliance information generated by the authorized NPDES program, EPA will receive timely and reliable data for overall management and oversight.

Regulated entities will benefit by knowing that the information in EPA's data systems characterizing their permitted entities is timely and accurate. Through electronic reporting, regulated entities can be more confident that their reports are received and acknowledged in a timely manner, and the reduced need for manual data entry by the authorized NPDES program will ensure that reported information and compliance status are being characterized correctly. Because the electronic reporting tools will include the ability to check for certain types of errors, the regulated entities will also see savings related to improved data quality and less need to revise and reenter their submissions.

6.4 Improved Efficiency of EPA Programs

EPA has concluded that the most efficient way to obtain NPDES data is to obtain it directly from the sources that generate the data, such as the regulated entities and authorized NPDES programs. Electronic reporting also improves data quality and allows for data sharing across federal and authorized NPDES program regulators using the Exchange Network. With electronic reporting, EPA and authorized NPDES programs will be able to use self-reported regulated entity data in real time. Additionally, EPA and states will be able to use computer aided tools to compare self-monitoring data with permit limits to assess compliance.

The additional information that will be available about NPDES regulated entities under the rule will allow EPA and authorized NPDES programs to more efficiently manage their programs. For example, EPA will be better able to identify the causes of water impairment based on the readily available discharge monitoring data and discharge limits. The additional information about both major and nonmajor regulated entities will also allow authorized NPDES programs and EPA to better monitor and report on the status of the NPDES programs they administer.

The expanded information available in ICIS-NPDES could also provide baseline information for possible pollution trading schemes. Because DMRs for both majors and nonmajors will now be required to be entered into ICIS-NPDES, more information characterizing the baseline loadings in U.S. waterways will be available. Potential pollution trading programs might be able to use this information to develop novel ways of improving overall water quality.

The list of required data elements (found in Appendix A) includes several data elements specific to certain subprograms covered by the NPDES program. Regulated entities already submit these subprogram-specific data; however, authorized NPDES programs will now be required to share the data with EPA. This information will improve the efficiency of the various NPDES subprograms. For example, biosolids regulated entities submit biosolids disposal data (land application, incineration, etc.). With this more complete information, EPA will be able to identify which methods of biosolids disposal are being used and could integrate this information into nutrient management plans for land disposal. Similarly, effluent discharges from significant industrial users (SIUs) will be electronically entered into ICIS-NPDES (currently, this

information is submitted via paper directly to POTWs and is not entered into ICIS-NPDES), allowing POTWs to more efficiently manage their pre-treatment programs based on reported SIU discharges to the treatment works.

6.5 Monetized Benefits Associated with Improved Data Quality

As mentioned above, EPA believes that electronic reporting can lead to reductions in errors in the reported data, benefitting both regulated entities and permitting authorities. Using information on the number of errors typically associated with DMR submissions, EPA developed a rough estimate of the potential time and cost savings that permitted authorities might experience from no longer having to correct errors in DMR data. Assuming that errors in DMR data from one permitting authority can be extrapolated to all permitting authorities, rough time and cost savings are estimated as follows:⁷²

- 1) Assume that permitting authorities typically only spend time correcting significant errors (error correction of ~7% used in this analysis).
- 2) Assume that the relationship between DMR errors avoided due to eReporting in Ohio (45,000/month) and estimated number of DMRs in Ohio (5,142 forms/month) is representative for all permitting authorities.⁷³
- 3) Apply ratio of avoided DMR errors and error correction percent to DMRs in all permitting authorities to estimate the annual number of errors no longer corrected.
- 4) Assuming that permitting authorities spend approximately 15 minutes per error correction, multiply time avoided per error times the number of errors no longer corrected to estimate the total hours saved per permitting authority.
- 5) Multiply total hours saved by the loaded wage rate for a government clerk to estimate the total cost saving for each permitted authority.
- 6) Aggregate time and cost savings across permitting authorities as a rough estimate of potential time and cost savings associated with improved data quality through data error reduction.

Applying this methodology to individual permitted facilities only, EPA estimates total time and cost saving of approximately 80 FTEs and \$5.4 million in wages. Extending the extrapolation to include general permit facilities increases the total to approximately 130 FTEs and \$9.3 million in wages. Because they are an extrapolation only, these additional potential savings from reduced error checking are not included in the estimated the total savings presented elsewhere in the analysis.

6.6 Potential Benefits from Electronic Individual Permit Applications

The final rule does not change the mode of submission for permit applications from individual NPDES permittees. Under the final rule, permittees would not be required to submit these applications electronically, and could continue to submit them on paper. However, with the move to electronic reporting, EPA and/or individual states could provide individual permittees with the option to submit their applications electronically (e.g., on CD-ROM or via Internet). This option would relieve EPA regions and/or states of the need to electronically enter certain facility data

⁷² Extrapolation is applied only to DMR submissions; additional benefits would be expected from other electronic reporting (e.g., eProgram Reports).

⁷³ In the Ohio Case Study mentioned in Section ES.2, Ohio reported that errors have dropped by 90 percent (from approximately 50,000 per month to 5,000 per month). Docket #EPA-HQ-OECA-2009-0274-0108.

elements associated with the permit, since these data could be imported directly from the electronic permit application, resulting in additional data entry cost savings.

To estimate the potential additional savings associated with optional electronic submission of individual permit applications, EPA used the permit universe and permitting frequencies identified in Section 2, along with the estimated data entry costs discussed in Section 4.4.2. Based on these data, if even 10% of individual permittees took advantage of the option to electronically submit permit applications, EPA regions and authorized NPDES programs could save approximately an additional \$64,000 per year in data entry costs. The majority of these savings (97%) would accrue to states. If more permittees took advantage of electronic permit submission, the savings would increase proportionally. Because they reflect a potential optional program and do not result directly from the requirements of the rule, these additional potential savings from electronic individual permit submission are not included in the estimated the total savings presented elsewhere in the analysis.

6.7 Conclusion

This analysis estimates that regulated entities, authorized NPDES programs, and EPA Regions will experience a total savings of \$50.6 million annually following rule implementation. Aside from the monetized benefits presented in Section 6.5, no attempt was made here to monetize the benefits of improved NPDES information or improved efficiency for EPA programs due to the wide range of beneficiaries and the nature of the associated benefits. However, EPA has concluded that electronic reporting supports EPA's goal of protecting human health and the environment. EPA has also concluded that converting to electronic reporting will improve facility compliance by increasing the availability of compliance information to all audiences, thereby incentivizing regulated entities, authorized NPDES programs, and EPA to deliver on the goal of full compliance. In addition, it will allow EPA and authorized NPDES programs to reduce the time and resources spent on technology issues, and focus on environmental policy and goals.

Section 7. - Additional Analyses

7.1 Executive Order 12866

Under Executive Order 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993), this action is a “significant regulatory action” under §3(f) of the Executive Order because it may raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in the Executive Order.

7.2 Paperwork Reduction Act (PRA)

The information collection requirements in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2468.02 and OMB control number 2020-0035.

This regulation will result in better utilization of current technology to ensure that facility-specific information under the Clean Water Act’s (CWA) National Pollutant Discharge Elimination System (NPDES) program is submitted to EPA on a nationally timely, consistent, accurate, and complete basis for national program management, oversight, and transparency. This regulation will require that most of this NPDES information be submitted electronically by the regulated entities; this information will be supplemented by required information regarding NPDES implementation activities by EPA, states, territories, and tribes authorized to implement the NPDES program.

Table 7-1 summarizes the average annual projected burden and cost of the regulation. Consistent with the Information Collection Request (ICR), these estimates reflect the net burden and cost to regulated entities and States over the first three years following promulgation of the rule. The three year total net burden reduction is estimated to be 0.6 million hours. The costs and burden are related to implementation and include training, one-time provision of facility information to EPA, and data entry for States. The cumulative implementation costs change into savings and burden reductions in the fourth year of electronic reporting.

Once the rule is fully implemented (five years after the effective date of the rule), net annual savings are expected to be \$22.6 million for states and \$0.5 million for regulated entities (based on 3% discount rate). Similarly, once the rule is fully implemented, net annual burden reduction for states is expected to be approximately 1.0 million hours. Although there are net cost savings for regulated entities at full implementation, the password reset burden for certain facilities results in an aggregate net burden increase of approximately 13,000 hours per year.

Table 7-1: Projected Burden and Cost over the First Three Years of the Rule		
Unit of Analysis	Affected Entity	
	Regulated Entities	States
Average Annual Number of Respondents ^a	213,349	47
Average Annual Number of Responses	78,477	1,135,376
Average Annual Incremental Burden (hours)	118,577	-315,814
Average Annual Incremental Cost	\$6,867,716	-\$1,072,586
Average Annual Incremental Burden per Respondent (hours)	0.56	-6,719
Average Annual Incremental Burden per Response (hours)	1.51	-0.28
Average Annual Incremental Cost per Respondent	\$32.19	-\$22,821
Average Annual Incremental Cost per Response	\$87.51	-\$0.94
^a The number of respondents includes regulated entities that both submit information (a response) and experience a cost or cost savings while the number of responses is limited to a count of information submissions. Thus, there are more affected respondents than responses.		

7.3 Regulatory Flexibility Act (RFA)

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, a small entity is defined as: (1) a small business as defined by the Small Business Administration's (SBA's) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is the government of a city, county, town, school districts, or special districts with a population of less than 50,000 people; or (3) a small organization that is any "not-for-profit enterprise which is independently owned and operated and is not dominant in its field." Note that under the RFA definition, States and tribal governments are not considered small governmental jurisdictions. For the detailed analysis of small entity impacts see Section 5.

After considering the economic impacts of today's rule on small entities, EPA certifies that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this rule are small businesses (e.g., industrial sectors, electricity generating facilities, and agricultural sectors) and small governmental jurisdictions (e.g., POTWs operated by municipalities). EPA has determined that 108,035 of the 108,036 small entities considered in this analysis will experience an impact of less than 1% of revenues. As described in Section 5, while impacts of greater than 1% are estimated to be incurred by one POTW due to the rule, impacts of greater than 1% are incurred by far fewer than 100 small entities and considerably less than 20% of all small entities for all sectors and for each sector individually. Therefore, the rule is not expected to significantly impact a substantial number of small entities.

Note that fewer facilities are considered in the small entity analysis than were estimated as the affected universe for the final rule (see Section 2). Due to the magnitude and diversity of facilities and sectors affected by this rulemaking, it was not possible to conduct a detailed analysis of parent entity-specific impacts. Because small entity status is based on industrial sector, the small entity analysis required data sources where industry sector (NAICS codes) of each facility could be identified. Although not a complete inventory of all potentially affected facilities, the universe of facilities in ICIS-NPDES and PCS at the time of the original analysis was used. The assumption is made that facilities affected by the final rule but not in ICIS-NPDES and PCS will experience small entity impacts similar to the facilities in ICIS-NPDES and PCS.

Although this rule will not have a significant economic impact on a substantial number of small entities, EPA has nonetheless tried to reduce the impact of this rule on small entities. In fact, this rule creates annual savings for small entity analyses through elimination of mailing and postage costs.

7.4 Unfunded Mandates Reform Act (UMRA)

This rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. In order to determine the burden on States, the workgroup conducted an economic analysis of potential costs. The analysis examined implementation using various options including the potential burden to state governments and indicates that the rule will not only cost states and local governments well below the threshold of \$100 million, it will actually result in savings. Thus, this rule is not subject to the requirements of Sections 202 or 205 of UMRA.

Additionally, this rule is not subject to the requirements Section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. Although this rule will impose electronic reporting requirements on small governments such as municipalities and tribes, EPA does not expect these impacts to be substantial or unique sufficient to meet the UMRA standards. According to EPA's Interim Small Government Agency Plan, actions have a significant impact if the cost is above \$100 million. As stated above, EPA does not expect this rule to exceed that threshold. Additionally, the guidance states that an action uniquely affects small governments if it disproportionately affects small governments, requires the hiring of experts, require sophisticated or expensive equipment, or require training. EPA does not expect this rule will have these requirements. Moreover, this rule will not require purchase of sophisticated or expensive equipment, nor will it require significant training (any required training will be offered by the agency). Thus this rule is not subject to Section 203.

7.5 Executive Order 13132 – Federalism

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

According to this Executive Order, EPA may not issue an action that has federalism implications (e.g., imposes substantial direct compliance costs that are not required by statute) unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by state and local governments, or EPA consults with state and local officials early in the process of developing the action.

This action has federalism implications, because it imposes substantial direct compliance costs on state or local governments, and the federal government will not provide the funds necessary to pay those costs. Specifically, EPA estimates costs to state governments of greater than \$25 million during the first year of rule implementation.

Consistent with EPA policy, EPA consulted with State and local officials early in the process of developing this action to permit them to have meaningful and timely input into its development. In developing the regulatory options described in this final action, EPA held a series of 49 outreach activities with state and local governments, on various aspects of the rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed action from State and local officials. EPA received comments from over one hundred (100) entities representing State and local governments. Of these comments, many were supportive of the rule and its goals. Commentators expressed support for the rule for a number of reasons, including its ability to modernize and streamline the reporting process, its efficiency and cost-effectiveness, and its ability to offer quicker access to standardized data. Several commentators expressed hope that electronic reporting could reduce errors in ICIS, make errors more quick and easy to correct, and expedite permit applications.

While most commenters were supportive of the proposed rule, there were several concerns that were raised by the responding state and local governments. One of the most frequently commented subjects was the Electronic Reporting Rule implementation schedule. Many commenters noted that the proposed two phase (one year per phase) implementation schedule was “too aggressive.” EPA addressed this comment by modifying the compliance schedule in the final rule to allow five years for the second phase of implementation.

A complete list of the comments from State and local governments has been provided to the Office of Management and Budget and has been placed in the docket for this rulemaking. In addition, the detailed response to comments from these entities is contained in EPA’s response to comments document on this rulemaking.

7.6 Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments

Subject to the Executive Order 13175 (65 FR 67249, November 9, 2000) EPA may not impose requirements not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or EPA consults with tribal officials early in the process of developing the proposed regulation and develops a tribal summary impact statement.

EPA has concluded that this action may have tribal implications. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law. Although no tribes have currently received approval for an authorized NPDES program, this rule will impose electronic reporting requirements on tribal facilities and on facilities operating on tribal lands.

EO 13175 may apply to this action, and therefore, consistent with EPA policy to promote communications between EPA and the tribes, EPA consulted with tribal representatives in developing this rule via conference calls and webinars with the National Tribal Caucus and National Tribal Water Counsel in November 2010. For additional information, see Section VI.B. of this preamble. No concerns were raised during those consultations.

In addition, EPA mailed information to 563 tribes regarding an opportunity to participate in two additional tribal outreach efforts in December 2010. Again, during these conference calls, no concerns were raised by participants during those consultations.

7.7 Executive Order 13045 – Children’s Health

Executive Order 13045, “Protection of Children from Environmental Health Risks and Safety Risks” (62 FR 19885, April 23, 1997), requires that federal agencies examine the impacts of each regulatory action on children for any economically significant regulation (as defined by Executive Order 12866) that the agency has reason to believe may disproportionately affect children. The final rule is not subject to EO 13045, because it does not establish an environmental standard intended to mitigate health or safety risks, nor does it otherwise have a disproportionate effect on children. Furthermore, the rule is not economically significant.

7.8 Executive Order 13211 – Energy Supply, Distribution, or Use

This action is not a “significant energy action” as defined in Executive Order 13211, entitled *Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use* (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

7.9 National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rule involves environmental monitoring or measurement. Consistent with the Agency’s Performance Based Measurement System (“PBMS”), EPA proposes not to require the use of specific, prescribed analytic methods. Rather, the Agency plans to allow the use of any method that meets the prescribed performance criteria. The PBMS approach is intended to be more flexible and cost-effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified.

Enforcement and Compliance Data Standard, Standard No.: EX000026.2, July 30, 2008.

This data standard should be used in this regulation because it identifies and defines the major areas of enforcement and compliance information that could be used for the exchange of data among environmental agencies and other entities. The purpose of the standard is to provide a common lexicon, so that information about functionality similar activities and/or instruments can be stored and to provide and receive data in a clearly defined and uniform way.

EPA proposes to use the following data standards which were developed by the Exchange Network Leadership Council (ENLC). The ENLC identifies, prioritizes, and pursues the creation of data standards for those areas where information exchange standards will provide the most value in achieving environmental results. The EDSC involves Tribes and Tribal Nations, state and federal agencies in the development of the standards. More information about ENLC is available at www.exchangenetwork.net.

Permitting Information Data Standard, Standard No.: EX000021.2, January 6, 2006.

This data standard should be used in this regulation because it specifies the key data groupings necessary for the consistent identification of information pertaining to permits of interest to environmental information exchange partners. This data standard provides a minimum set of data, which needs to be reported for permitting information such as permit name, number, type, organization or facility name and affiliation type.

Facility Site Identification Data Standard, Standard No.: EX000020.2, January 6, 2006.

The purpose of this data standard is to identify a facility of environmental interest. This data standard should be used in this regulation because it provides for the unique identification of facilities regulated or monitored by US EPA, Tribes and States. Each facility is assigned a unique factory identification number, which identifies information for the facility specified. This standard provides and describes data groupings that are used to exchange facility site identification data and information. This standard helps US EPA, Tribes, and States integrate and share facility information across multiple information systems, programs, and governments.

Contact Information Data Standard, Standard No.: EX000019.2, January 6, 2006.

This data standard should be used in this regulation because it provides information regarding the source of contact. This standard offers data groupings that are used to describe a point of contact, address, and communication information. For example, the data grouping “Point of Contact” subdivides to lower levels such as individual, Affiliation, and Organization. These intermediate data groupings are further defined at the elemental levels with Name, Title, Code, and Prefix.

Representation of Date and Time Data Standard, Standard No.: EX000013.1, January 6, 2006.

This data standard should be used in this regulation because it provides and describes data groupings that are used for exchange of Date and Time data and information. The standard provides information on the high level, intermediate and elemental representation of date and time data groupings.

Latitude/Longitude Data Standard, Standard No.: EX000017.2, January 6, 2006.

This data standard should be used in this regulation because it establishes the requirements for documenting latitude and longitude coordinates and related method, accuracy, and description data for all places used in the data exchange transaction. Places include facilities, sites, monitoring stations, observations points, and other regulated or tracked features. This standard describes data elements and data grouping that are used to exchange latitude/longitude data and information. The purpose of the standard is to provide a common set of data elements to use for recording horizontal and vertical coordinates and associated metadata that define a point on the earth.

SIC/NAICS Data Standard, Standard No.: EX000022.2, January 6, 2006.

This data standard should be used in this regulation because it provides a common set of data groupings to specify a way to classify business activities, including industry classifications, product classifications, and product codes. This data standard provides information on business activity according to the Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS).

7.10 Executive Order 12898 – Environmental Justice

Executive Order (EO) 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 FR 7629 (Feb. 16, 1994)), establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to

the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the U.S.

EPA has determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not adversely affect the level of protection provided to human health or the environment.

The rule will not create any new reporting requirements; it will simply require reports be submitted electronically, which will in turn support and enhance compliance assurance to the benefit of minority and low-income populations. Enhanced monitoring, reporting and record-keeping requirements can help maximize the use of existing statutory and regulatory authority to assess and ensure compliance to protect adversely affected populations. Moreover, electronic reporting promotes transparency, giving the public more and improved information about sources of water pollution in their communities thereby increasing minority and low-income populations' opportunities for meaningful involvement.

Appendix A – List of Data Elements in Appendix A to 40 CFR 127

The final rule will increase the number of data elements that authorized NPDES programs are required to enter into ICIS-NPDES from those in the Water Enforcement National Data Base (WENDB) to those in Appendix A to 40 CFR 127 (see Section 1), listed below.

Appendix A to 40 CFR 127	
Data Name	Data Family for Purposes of Economic Analysis
Basic Facility Information	
Facility Type of Ownership	Facility
Facility Site Name	Facility
Facility Site Address	Facility
Facility Site City	Facility
Facility Site State	Facility
Facility Site Zip Code	Facility
Facility Site Tribal Land Indicator	Facility
Facility Site Longitude	Facility
Facility Site Latitude	Facility
Facility Contract Affiliation Type	Facility
Facility Contact First Name	Facility
Facility Contact Last Name	Facility
Facility Contact Title	Facility
Facility Individual E-Mail Address	Facility
Facility Organization Formal Name	Facility
Basic Permit Information	
NPDES ID	Permit
Master General Permit Number	Permit
Permit Type	Permit
Permit Component	Permit
Permit Issue Date	Permit
Permit Effective Date	Permit
Permit Modification/Amendment Date	Permit
Permit Expiration Date	Permit
Permit Termination Date	Permit
Permit Major/Minor Status Indicator	Permit
Permit Major/Minor Status Start Date	Permit
Permit Application Total Design Flow	Permit
Permit Application Total Actual Average Flow	Permit
Complete Permit Application/NOI Received Date	Permit
Permit Application/NOI Received Date	Permit
Permit Status	Permit
Master General Permit Industrial Category	Permit
Permit Issuing Organization Type	Permit
DMR Non-Receipt	Permit
DMR Non-Receipt Start Date	Permit
Reportable Noncompliance Tracking	Permit
Reportable Noncompliance Tracking Start Date	Permit
Applicable Effluent Limitations Guidelines	Permit
Permit Compliance Tracking Status	Permit
Permit Compliance Tracking Status Start Date	Permit
RNC Status (Manual)	Permit
RNC Status (Manual) Year	Permit
RNC Status (Manual) Quarter	Permit
Associated NPDES ID Number	Permit
Associated NPDES ID Number Reason	Permit
Receiving POTW ID	Permit
SIC Code	Permit
SIC Code Primary Indicator	Permit
NAICS Codes	Permit
NAICS Code Primary Indicator	Permit

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Data Name	Data Family for Purposes of Economic Analysis
Permittee Mailing Address	Permit
Permittee Organization Formal Name	Permit
Permittee City	Permit
Permittee State	Permit
Permittee Zip Code	Permit
Residual Designation Determination Date	Permit
Electronic Reporting Waiver Type	Permit
Electronic Reporting Waiver Expiration Date	Permit
Electronic Submission Type (General Permit Reports)	Permit
NPDES Data Group Number	Permit
Narrative Conditions and Permit Schedules Information	
Permit Narrative Condition Code	Permit
Permit Narrative Condition Number	Permit
Permit Schedule Date	Permit
Permit Schedule Actual Date	Permit
Required Report Received Date	Permit
Permit Schedule Event Code	Permit
Permitted Feature Information	
Permitted Feature Application Actual Average Flow (MGD)	Permit
Permitted Feature Identifier	Permit
Permitted Feature Type	Permit
Receiving Waterbody Name for Permitted Feature	Permit
Permitted Feature Longitude	Permit
Permitted Feature Latitude	Permit
Limit Set Information	
Limit Set Designator	Limit Set
Limit Set Type	Limit Set
Modification Effective Date (Limit Set)	Limit Set
Modification Type (Limit Set)	Limit Set
Initial Monitoring Date	Limit Set
Initial DMR Due Date	Limit Set
Number of Report Units	Limit Set
Number of Submission Units	Limit Set
Limit Set Status	Limit Set
Limit Set Status Start Date	Limit Set
Limit Information	
Monitoring Location Code	Limit
Limit Season Number	Limit
Limit Start Date	Limit
Limit End Date	Limit
Change of Limit Status Indicator	Limit
Limit Stay Type	Limit
Limit Stay Start Date	Limit
Limit Stay End Date	Limit
Reason for Limit Stay	Limit
Stay Limit Value	Limit
Limit Type	Limit
Enforcement Action ID	Limit
Final Order ID	Limit
Modification Effective Date	Limit
Modification Type	Limit
Limit Parameter Code	Limit
Limit Months	Limit
Limit Value Type	Limit
Limit Quantity or Concentration Units	Limit
Statistical Base Code	Limit
Optional Monitoring Code	Limit
Limit Value Qualifier	Limit
Limit Value	Limit
Sewage Sludge/Biosolids Information on NPDES Permit Application or Notice of Intent	
Biosolids/Sewage Sludge Management Facility Type	Permit
Biosolids or Sewage Sludge Treatment Processes (Permit)	Permit
Biosolids or Sewage Sludge Form (Permit)	Permit

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Data Name	Data Family for Purposes of Economic Analysis
Biosolids or Sewage Sludge Management Practice (Permit)	Permit
Biosolids or Sewage Sludge Pathogen Class (Permit)	Permit
Biosolids or Sewage Sludge Vector Attraction Reduction Options (Permit)	Permit
Biosolids or Sewage Sludge Pathogen Reduction Options (Permit)	Permit
Biosolids or Sewage Sludge Amount (Permit)	Permit
Animal Feeding Operation Information on NPDES Permit Application or Notice of Intent	
Facility CAAP Designation	Permit
Facility CAFO Type	Permit
CAFO Designation Date	Permit
CAFO Designation Reason	Permit
CAFO Animal Types	Permit
CAFO Animal Maximum Numbers	Permit
CAFO Animal Maximum Numbers in Open Confinement	Permit
CAFO MLPW	Permit
CAFO MLPW Amounts	Permit
CAFO MLPW Amounts Units	Permit
CAFO MLPW Transferred	Permit
Total Number of Acres Available for Land Application	Permit
CAFO MLPW Containment and Storage Type	Permit
CAFO MLPW Containment and Storage Maximum Capacity Amounts	Permit
CAFO MLPW Containment and Storage Maximum Capacity Amounts Unit	Permit
Construction and Industrial Stormwater Information	
No Exposure Certification Approval Date	Permit
Low Erosivity Waiver Approval Date	Permit
Construction Stormwater Information on NPDES Permit Application, Notice of Intent, or Waiver Request	
Total Area of the Site	Permit
Total Activity Area (Construction)	Permit
Post-Construction Total Impervious Area	Permit
Proposed Stormwater Best Management Practices for Construction Activities	Permit
Post-Construction Stormwater Best Management Practices for Construction Activities	Permit
Soil and Fill Material Description	Permit
Runoff Coefficient of the Site (Post Construction)	Permit
Estimated Construction Project Start Date	Permit
Estimated Construction Project End Date	Permit
Industrial Stormwater Information on NPDES Permit Application, Notice of Intent, or Permitting Exclusion Request	
Total Activity Area (Industrial)	Permit
Total Impervious Surface Area (Industrial)	Permit
Proposed Stormwater Best Management Practices (Industrial)	Permit
Municipal Separate Storm Sewer System (MS4) Information on NPDES Permit Application or Notice of Intent	
MS4 Permit Class	Permit
Unique Identifier for Each Municipality Covered Under MS4 Permit	Permit
MS4 Public Education Program	Permit
MS4 Measurable Goals Associated With Public Education Program	Permit
MS4 Public Involvement and Participation Program	Permit
MS4 Measurable Goals for the Public Involvement and Participation Program	Permit
MS4 Illicit Discharge Detection and Elimination	Permit
MS4 Measurable Goals Associated With Illicit Discharge Detection and Elimination Program	Permit
MS4 Construction Site Stormwater Runoff Control	Permit
MS4 Measurable Goals Associated with the Construction Site Stormwater Runoff Control Program	Permit
MS4 Post- Construction Stormwater Management In New Development And Redevelopment	Permit
MS4 Measurable Goals Associated with the Post- Construction: Stormwater Management Program	Permit
MS4 Pollution Prevention/ Good Housekeeping for Municipal Operations Program	Permit
MS4 Additional Measures	Permit
POTW Collection System Information on NPDES Permit Application or Notice of Intent	
Name of Collection System	Permit
Owner Type of Collection System	Permit

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Data Name	Data Family for Purposes of Economic Analysis
Collection System Identifier	Permit
Population of Collection System	Permit
Percentage of Collection System That Is a Combined Sewer System	Permit
POTW Wastewater Treatment Technology Level Description	Permit
POTW Wastewater Disinfection Technology	Permit
POTW Wastewater Treatment Technology Unit Operations	Permit
Combined Sewer System Information on NPDES Permit Application or Notice of Intent	
Long-Term CSO Control Plan Permit Requirements and Compliance	Permit
Nine Minimum CSO Controls Developed	Permit
Nine Minimum CSO Controls Implemented	Permit
LTCP Submission and Approval Type	Permit
LTCP Approval Date	Permit
Enforceable Mechanism and Schedule to Complete LTCP and CSO Controls	Permit
Actual Date Completed LTCP and CSO Controls	Permit
Approved Post-Construction Compliance Monitoring Program	Permit
Other CSO Control Measures with Compliance Schedule	Permit
Pretreatment Information on NPDES Permit Application or Notice of Intent	
Pretreatment Program Required Indicator	Permit
Pretreatment Program Approval or Modification Date	Permit
Pretreatment Program Modification Type	Permit
Industrial User Type	Permit
Significant Industrial User Subject to Local Limits	Permit
Significant Industrial User Subject to Local Limits More Stringent Than Categorical Standards	Permit
Applicable Categorical Standards	Permit
Significant Industrial User Wastewater Flow Rate	Permit
Industrial User Causing Problems at POTW	Permit
Receiving RCRA Waste	Permit
Receiving Remediation Waste	Permit
Control Authority Identifier	Permit
Cooling Water Intake Information on NPDES Permit Application or Notice of Intent	
Cooling Water Intake Applicable Subpart	Permit
Design Intake Flow for Cooling Water Intake Structure(s)	Permit
Actual Intake Flow for Cooling Water Intake Structure(s)	Permit
Location Type for Cooling Water Intake Structure	Permit
Actual Through-Screen Velocity	Permit
Source Water for Cooling Purposes	Permit
Cooling Water Intake Structure Chosen Compliance Method	Permit
Source Water Baseline Biological Characterization Data: Threatened or Endangered Status	Permit
CWA Section 316(a) Thermal Variance Information on NPDES Permit Application or Notice of Intent	
Thermal Variance Request Type	Permit
Public Notice of Section 316(a) Requests	Permit
Thermal Variance Granted Date	Permit
Compliance Monitoring Activity Information (General)	
Compliance Monitoring Identifier	Compliance Monitoring
Permitted Feature Identifier (Compliance Monitoring Activity)	Compliance Monitoring
Electronic Submission Type	Compliance Monitoring
Compliance Monitoring Activity Actual End Date	Compliance Monitoring
Compliance Monitoring Activity Planned End Date	Compliance Monitoring
Compliance Monitoring State	Compliance Monitoring
Compliance Monitoring Activity	Compliance Monitoring
Compliance Monitoring Type	Compliance Monitoring
Biomonitoring Test Type	Compliance Monitoring
Compliance Monitoring Action Reason	Compliance Monitoring
Was this a State, Federal or Joint (State/Federal) Inspection?	Compliance Monitoring
Programs Evaluated	Compliance Monitoring
Compliance Monitoring Activity Information (Program Specific Data)	
Deficiencies Identified Through the Biosolids/Sewage Sludge Compliance Monitoring	Compliance Monitoring
Deficiencies Identified Through the MS4 Compliance Monitoring	Compliance Monitoring
Deficiencies Identified Through the Pretreatment Compliance Monitoring	Compliance Monitoring
Deficiencies Identified Through the Sewer Overflow Compliance Monitoring	Compliance Monitoring

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Data Name	Data Family for Purposes of Economic Analysis
Compliance Monitoring Activity Information (AFO/CAFO Inspections)	
Animal Types (Inspection)	Compliance Monitoring
Animal Numbers (Inspection)	Compliance Monitoring
Animal Numbers in Open Confinement (Inspection)	Compliance Monitoring
MLPW Containment and Storage Type (Inspection)	Compliance Monitoring
MLPW Containment and Storage Type Within Design Capacity (Inspection)	Compliance Monitoring
AFO/CAFO Unauthorized Discharges (Inspection)	Compliance Monitoring
Permit Requirements Implementation (Inspection)	Compliance Monitoring
Compliance Monitoring Activity Information (Discharge Monitoring Report, and Pretreatment Periodic Compliance Reports for Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs) when EPA or the State is the Control Authority)	
Limit Set Designator (Compliance Monitoring Activity)	DMR
Parameter Code (Compliance Monitoring Activity)	DMR
Monitoring Location Code (Compliance Monitoring Activity)	DMR
Limit Season Number (Compliance Monitoring Activity)	DMR
Monitoring Period End Date (Compliance Monitoring Activity)	DMR
No Data Indicator (NODI) (Compliance Monitoring Activity)	DMR
Value (Compliance Monitoring Activity)	DMR
Quantity or Concentration Units (Compliance Monitoring Activity)	DMR
Value Received Date (Compliance Monitoring Activity)	DMR
Value Type (Compliance Monitoring Activity)	DMR
Value Qualifier (Compliance Monitoring Activity)	DMR
Compliance Monitoring Activity Information (Periodic Program Reports)	
Program Report Received Date	Program Report
Program Report Event ID	Program Report
Start Date of Reporting Period	Program Report
End Date of Reporting Period	Program Report
NPDES Data Group Number (Program Report)	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to Sewage Sludge/Biosolids Annual Program Reports)	
Biosolids or Sewage Sludge Treatment Processes	Program Report
Biosolids or Sewage Sludge Analytical Methods	Program Report
Biosolids or Sewage Sludge Form	Program Report
Biosolids or Sewage Sludge Management Practice	Program Report
Biosolids or Sewage Sludge Pathogen Class	Program Report
Biosolids or Sewage Sludge Volume Amount	Program Report
Biosolids or Sewage Sludge Pathogen Reduction Options	Program Report
Biosolids or Sewage Sludge Vector Attraction Reduction Options	Program Report
Biosolids or Sewage Sludge Monitored Parameter	Program Report
Biosolids or Sewage Sludge Monitored Parameter Value	Program Report
Biosolids or Sewage Sludge s Monitored Parameter Units	Program Report
Biosolids or Sewage Sludge Monitored Parameter End Date	Program Report
Biosolids or Sewage Sludge - Surface Disposal Maximum Allowable Pollutant Concentration	Program Report
Biosolids or Sewage Sludge – Land Application or Surface Disposal Deficiencies	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to CAFO Annual Program Reports)	
CAFO Animal Types (Program Report)	Program Report
CAFO Animal Maximum Number (Program Report)	Program Report
CAFO Animal Maximum Number in Open Confinement (Program Report)	Program Report
CAFO MLPW (Program Report)	Program Report
CAFO MLPW Amounts (Program Report)	Program Report
CAFO MLPW Amounts Units (Program Report)	Program Report
CAFO MLPW Transferred (Program Report)	Program Report
Total Number of Acres for Land Application Covered by the Nutrient Management Plan (Program Report)	Program Report
Total Number of Acres Used for Land Application (Program Report)	Program Report
Discharge Type (Program Report)	Program Report
Discovery Dates of Discharges from Production Area (Program Report)	Program Report
Duration of Discharges from Production Area (Program Report)	Program Report
Approximate Volume of Discharge from Production Area (Program Report)	Program Report
Whether NMP Approved or Developed by Certified Planner (Program Report)	Program Report
CAFO MLPW Nitrogen Content (Program Report)	Program Report
CAFO MLPW Phosphorus Content (Program Report)	Program Report

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Data Name	Data Family for Purposes of Economic Analysis
CAFO MLPW Nitrogen or Phosphorus Units (Program Report)	Program Report
CAFO MLPW Nitrogen or Phosphorus Form (Program Report)	Program Report
Field Identification Number (Program Report)	Program Report
Actual Crop(s) Planted for Each Field (Program Report)	Program Report
Actual Crop Yield(s) for Each Field (Program Report)	Program Report
Actual Crop Yield(s) for Each Field Units (Program Report)	Program Report
Method for Calculating Maximum Amounts of Manure, Litter, and Process Wastewater (Program Report)	Program Report
CAFO MLPW Land Application For Each Field (Program Report)	Program Report
CAFO MLPW Land Application Maximum Amount For Each Field (Program Report)	Program Report
CAFO MLPW Land Application Actual Amount For Each Field (Program Report)	Program Report
CAFO MLPW Land Application For Each Field Unit (Program Report)	Program Report
Nitrogen Soil Test Measurement (Narrative Rate Approach) (Program Report)	Program Report
Phosphorus Soil Test Measurement (Narrative Rate Approach) (Program Report)	Program Report
Soil Test Measurement Form (Narrative Rate Approach) (Program Report)	Program Report
Soil Test Measurement Unit(s) (Narrative Rate Approach) (Program Report)	Program Report
Nitrogen Amount of Any Supplemental Fertilizer Applied (Program Report)	Program Report
Phosphorus Amount of Any Supplemental Fertilizer Applied (Program Report)	Program Report
Supplemental Fertilizer Applied Units (Program Report)	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to Municipal Separate Storm Sewer System Program Reports)	
MS4 Reliance on Other Government Entities Status	Program Report
MS4 Reliance on Other Government Entities: Permit Component Status	Program Report
MS4 Permit Components Descriptions and Measurable Goals	Program Report
Changes to MS4 Permit Components and Measurable Goals	Program Report
Status of Compliance with each Minimum Control Measure	Program Report
Progress and Summary of Results with Each Minimum Control Measure	Program Report
MS4 Enforcement Action Type	Program Report
MS4 Enforcement Action Number	Program Report
MS4 Municipality Enforcement Agency	Program Report
MS4 Industrial Stormwater Control	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to Pretreatment Program Reports, SIU Periodic Compliance Reports in Municipalities without an Approved Pretreatment Program)	
SNC Published	Program Report
SNC with Pretreatment Enforceable Compliance Schedule Status	Program Report
Local Limits Adoption Date	Program Report
Local Limits Evaluation Date	Program Report
Local Limits Pollutants	Program Report
POTW Discharge Contamination Indicator (Program Report)	Program Report
POTW Biosolids or Sewage Sludge Contamination Indicator (Program Report)	Program Report
Industrial User Control Mechanism Status	Program Report
Industrial User Control Mechanism Effective Date	Program Report
Industrial User Control Mechanism Expiration Date	Program Report
SNC with Pretreatment Standards or Limits (Program Report)	Program Report
SNC with Pretreatment Standards or Limits Pollutants (Program Report)	Program Report
SNC with Reporting Requirements (Program Report)	Program Report
SNC with Other Control Mechanism Requirements (Program Report)	Program Report
Listing of Months in SNC	Program Report
Number of Industrial User Inspections by Control Authority	Program Report
Number of Industrial User Sampling Events by Control Authority	Program Report
Number of Required Industrial User Self-Monitoring Events	Program Report
Actual Number of Industrial User Self-Monitoring Events	Program Report
Types of Industrial User Enforcement Action	Program Report
Number of Industrial User Enforcement Actions	Program Report
Industrial User Cash Civil Penalty Amount Assessed	Program Report
Industrial User Cash Civil Penalty Amount Collected	Program Report
Industrial User POTW Discharge Contamination Indicator (Program Report)	Program Report
Industrial User Biosolids or Sewage Sludge Contamination Indicator (Program Report)	Program Report
Industrial User Wastewater Flow Rate (Program Report)	Program Report
Middle-Tier Significant Industrial User Reduced Reporting Status	Program Report

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Data Name	Data Family for Purposes of Economic Analysis
Non-Significant Categorical Industrial User (NSCIU) Certification Submitted to Control Authority	Program Report
Notification of Changed Discharge Submission	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to Sewer Overflow/Bypass Event Reports)	
Sewer Overflow/Bypass Discharge Identifier	Program Report
Sewer Overflow/Bypass Longitude for Unpermitted Feature (Sewer Overflow/Bypass Event Report)	Program Report
Sewer Overflow/Bypass Latitude for Unpermitted Feature (Sewer Overflow/Bypass Event Report)	Program Report
Type of Sewer Overflow/Bypass (Sewer Overflow/Bypass Event Report)	Program Report
Type of Sewer Overflow/Bypass Structure	Program Report
Sewer Overflow/Bypass Cause	Program Report
Duration of Sewer Overflow/Bypass event (hours) (Sewer Overflow/Bypass Event Report)	Program Report
Sewer Overflow/Bypass Discharge Volume (gallons) (Sewer Overflow/Bypass Event Report)	Program Report
Receiving Waterbody Name for Unpermitted Feature (Sewer Overflow/Bypass Event Report)	Program Report
Wet Weather Occurrence for Sewer Overflow/Bypass Status	Program Report
Corrective Actions Taken or Planned for Sewer Overflow/Bypass (Sewer Overflow/Bypass Event Report)	Program Report
Type of Potential Impact of Sewer Overflow/Bypass Event (Sewer Overflow/Bypass Event Report)	Program Report
Compliance Monitoring Activity Information (Data Elements Specific to CWA Section 316(b) Annual Reports)	
CWA Section 316(b) Biological Monitoring - Species Name (Program Report)	Program Report
CWA Section 316(b) Biological Monitoring - Species Number (Program Report)	Program Report
CWA Section 316(b) Biological Monitoring - Threatened or Endangered Status (Program Report)	Program Report
CWA Section 316(b) Biological Monitoring - Species Impinged and Entrained (Program Report)	Program Report
CWA Section 316(b) Biological Monitoring – Applicable Measures to Protect Designated Critical Habitat (Program Report)	Program Report
Information Common to Violations, Enforcement Actions, and Final Orders	
Violation Code	Violation/ Enforcement Action
Violation Date	Violation/ Enforcement Action
Violation Information	
Agency Identifying the Single Event Violation (SEV)	Violation
Single Event Violation Start Date	Violation
Single Event Violation End Date	Violation
RNC Detection Code	Violation
RNC Detection Date	Violation
RNC Resolution Code	Violation
RNC Resolution Date	Violation
Enforcement Action Information	
Enforcement Action Identifier	Enforcement Action
Enforcement Action Forum	Enforcement Action
Enforcement Action Type	Enforcement Action
Programs Violated (Enforcement Action)	Enforcement Action
Enforcement Action Sub-activity Type	Enforcement Action
Enforcement Action Sub-activity Completion Date	Enforcement Action
Final Order Information	
Final Order Identifier	Enforcement Action
Final Order Type	Enforcement Action
Final Order Issued/ Entered Date	Enforcement Action
NPDES Closed Date	Enforcement Action
Penalty Information	
Penalty Amount Assessed	Enforcement Action
Penalty Amount Collected	Enforcement Action
Supplemental Environmental Project Identifier	Enforcement Action
Supplemental Environmental Project Amount	Enforcement Action
Supplemental Environmental Project Description.	Enforcement Action
Compliance Schedule Information	
Compliance Schedule Number	Enforcement Action

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Data Name	Data Family for Purposes of Economic Analysis
Compliance Schedule Type	Enforcement Action
Compliance Schedule Description	Enforcement Action
Compliance Schedule Event Code	Enforcement Action
Compliance Schedule Due Date	Enforcement Action
Compliance Schedule Actual Date	Enforcement Action
Compliance Schedule Report Received Date	Enforcement Action

Appendix B – List of States by Data Entry Type

There are three different methods state authorized NPDES programs utilize to submit data into ICIS-NPDES or PCS: Direct Entry, Batch Upload and a Hybrid of the two approaches (see Section 3).

- Direct Entry authorities enter data into EPA’s ICIS-NPDES or PCS system directly.
- Batch systems use their own state system to track regulated entities and their own activities under the NPDES program. This NPDES information is periodically uploaded to EPA’s ICIS-NPDES or PCS systems.
- Hybrid systems enter most data over the web, with the DMR component of the NPDES permit batch uploaded to EPA’s ICIS-NPDES or PCS systems periodically.

Table B-1 lists each state, tribe, and territory with its associated data entry type.

Table B-1: States by Data Entry Type	
State	Data Entry Type
AL	Batch
AK	Direct
AS ^a	Direct
AZ	Batch
AR	Hybrid
AT ^a	Direct
CA	Direct
CO	Direct
CM ^a	Direct
CT	Direct
CZ ^a	Direct
DE	Batch
DC	Direct
FL	Batch
GA	Direct
GE ^a	Direct
GU ^a	Direct
GM ^a	Direct
HI	Direct
ID	Direct
IL	Hybrid
IN	Direct
IA	Batch
KS	Batch
KY	Batch
LA	Direct
ME	Batch
MD	Direct
MA	Direct
MI	Hybrid
MN	Hybrid
MS	Direct
MO	Batch
MT	Direct
NE	Direct
NV	Batch
NH	Direct
NJ	Direct
NM	Direct
NN ^b	Direct

Table B-1: States by Data Entry Type

State	Data Entry Type
NY	Direct
NC	Batch
ND	Batch
OH	Batch
OK	Direct
OR	Batch
PA	Batch
PR ^a	Direct
RI	Direct
SC	Direct
SD	Direct
SR ^b	Direct
TN	Batch
TT ^a	Direct
TX	Hybrid
UT	Direct
VT	Batch
VI ^a	Direct
VA	Batch
WA	Batch
WV	Batch
WI	Direct
WY	Batch

^a This area is a territory.

^b This area is a tribe.

Source: Kadish, Rochele. 2013. Office of Enforcement and Compliance, U.S. EPA.

Appendix C – NPDES Program Management Information (PMI) Survey

This survey was originally developed to support an earlier version of this rule (known as the Program Management Information Proposed Rule) that did not include electronic reporting. Certain elements of the earlier proposed rule, however, are relevant to the current NPDES Electronic Reporting Rule. Specifically, the time required of state personnel to enter NPDES data elements, as collected in the attached survey, is relevant to calculating the data entry burden to states under the NPDES Electronic Reporting Rule.

NPDES Program Management Information (PMI) Survey

This survey contains the following three sections:

- A description of the new data elements covered by the proposed PMI rule and questions relating to data entry activities that states undertake to provide NPDES data.
- Additional questions related to other activities such as QA/QC, training, and program management that states undertake to provide NPDES data.
- Definitions of terms used in this survey.

C.1 SECTION 1: Description of New Data Elements and Data Entry Questions

In order to better protect human health and the environment, the EPA has expanded the information collected for NPDES. Under the proposed NPDES PMI Rule, new data elements (listed below in Table C-2, Table C-4, Table C-6, Table C-8, Table C-10, and Table C-12, and Table C-14) will be added to the following data families: facility, permit, compliance monitoring activity, discharge monitoring reports (DMRs), violation, program reports, and enforcement action. In addition, certain information will now be reported for new subprograms including Biosolids, Concentrated Animal Feeding Operation (CAFO), Sanitary Sewer Overflow (SSO), Combined Sewer Overflow (CSO), Storm Water Management (SWM), and Pretreatment.

As a starting point for this analysis, we would like you to consider the amount of time it takes your state to enter the Water Enforcement National Data Base (WENDB) data elements. For the purposes of this analysis, we are assuming that your state enters all of the currently required WENDB data elements. Please respond accordingly by providing time estimates by data family in Table C-1, Table C-3, Table C-5, Table C-7, Table C-9, Table C-11, and Table C-13. Considering the new data elements listed below, please provide estimates of the additional time your state will spend per data family to enter the new data required by the proposed NPDES PMI Rule in Table C-2, Table C-4, Table C-6, Table C-8, Table C-10, and Table C-12, and Table C-14. For majors and nonmajors, please include the amount of time to conduct research on the required data and the amount of time to locate the data in your files as costs associated with data entry. Note: Under the proposed NPDES PMI rule, all data elements for nonmajor permits will be required for data entry.

The following sections are organized by data element families. Please answer the questions below to the best of your ability.

Facility Data Element Family

The Facility Data Element Family generally includes data elements such as name and address of the facility, and contact name. Several pieces of facility information will be required to improve the EPA’s management of facilities. Tribal Land is required so that the EPA can identify effluent discharges in Tribal nations. Affiliation information is required to ensure reported data comes from the appropriate employee or representative.

Table C-1: WENDB Facility Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB facility data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 – 15 minutes <input type="checkbox"/> 15 – 20 minutes <input type="checkbox"/> 20 – 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 – 60 minutes <input type="checkbox"/> 60 – 90 minutes <input type="checkbox"/> 90 – 120 minutes <input type="checkbox"/> >120 minutes <input type="checkbox"/> Not Applicable

Table C-2: New Facility Data Elements	
Data Family Sub-Area	Data Element Name
Basic Info	Tribal Land
Non Government Contacts	Affiliation type
Non Government Contacts	Individual Title
What is the average amount of time your state would spend entering these new facility data elements for a typical permit?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 – 15 minutes <input type="checkbox"/> 15 – 20 minutes <input type="checkbox"/> 20 – 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 – 60 minutes <input type="checkbox"/> > 60 minutes <input type="checkbox"/> Not Applicable

Permit Data Element Family

The Permit Data Element Family generally includes basic permit information, tracking of a permit’s issuance, narrative permit conditions such as permit schedules, permitted features (outfalls), permit limit sets, and permit limits. Data elements like DMR non-receipt tracking flags, RNC tracking flags, and applicable effluent guidelines have been added to help EPA characterize and monitor a facility’s compliance with their permit requirements. Data elements have also been added to address changes in industrial codes. Under the WENDB requirements, Standard Industrial Classification (SIC) codes were used to designate a facility’s industrial sector. Since then, the North American Industrial Classification System (NAICS) has been adopted to more accurately represent commercial activities. These changes will allow the EPA to more effectively manage basic permit information for compliance and enforcement purposes.

Other permit data elements have been added to represent the expanded NPDES program. The required permit data elements are designed to effectively measure the environmental impact of

new facility types covered under the CWA. Both the size of the permitted site and the cause of the discharge, such as the number of animals in a feeding operation, will be reported. Wet weather components are included to manage stormwater run-off from impervious surfaces. CSO data elements are included to track possible discharges of untreated human and industrial waste. Other elements, such as Control Authority ID Number tie treatment facility permits to the approved local pretreatment programs.

Additional data elements have been added to characterize permitted features, their limit sets, and limits. Actual flow and design flow contain information on the volume of effluent a permitted feature can be expected to accommodate. Months of duration for a limit set, stay end date, reason for stay, enforcement action ID, eligibility for a burden reduction, months, and qualifier all capture information that can be used to characterize and justify effluent limit or stays of such limits. These new permit data elements allow EPA to better monitor compliance and enforcement of the NPDES program.

Table C-3: WENDB Permit Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB permit data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> 60 - 90 minutes <input type="checkbox"/> 90 - 120 minutes <input type="checkbox"/> >120 minutes <input type="checkbox"/> Not Applicable

Table C-4: New Permit Data Elements	
Sub-Area	Data Element Name
Basic Info	DMR Non-Receipt
Basic Info	RNC
Basic Info	Application Effluent Limit Guideline
Basic Info	NAICS Codes
Biosolids	Amount EQ Product Distribute and Market
Biosolids	Amount Land Applied
Biosolids	Amount Incinerated
Biosolids	Amount Codisposed in a MSW Landfill
Biosolids	Amount Surface Disposal
Biosolids	Amount Managed Other Methods
CAFO	Designation Reason
CAFO	Designation Date
CAFO	Solid Manure or Litter Generated
CAFO	Solid Manure or Litter Transferred
CAFO	Liquid Manure or Wastewater Generated
CAFO	Liquid Manure or Wastewater Transferred
CAFO	NMP Developed Date
CAFO	CAFO Classification
CAFO	Animal : Type
CAFO	Animal : Other
CAFO	Total Number
CAFO	Containment : Type
CAFO	Containment : Total Capacity
CAFO	Storage : Type
CAFO	Storage : Other
CAFO	Days of Storage
CAFO	Storage Total Capacity Measure
Storm Water	State Water Body Name
Storm Water Construction	NOT Termination Date
Storm Water Construction	Entire Project Size
Storm Water Industrial	NOT Termination Date
Storm Water Industrial	No Exposure Date
Storm Water MS4	MS4 Permit Class
Storm Water MS5	Receiving MS4 Name
CSO	CSS population Served
CSO	Percent of Collection System Combined
CSO	Name of CSS Satellite Collection System
CSO	Permit ID of CSS Satellite Collection System
Pretreatment	Pretreatment Program Approved Date
Pretreatment	Control Authority NPDES ID
Pretreatment	SSCS Population Served
Pretreatment	Length of SSCS
Narrative Condition/Permit Schedules	Description
Basic Info	Application Design Flow
Basic Info	Application Actual Average Flow
Basic Info	Default Months Limit Set Applies
Basic Info	Stay End Date
Basic Info	Reason for Stay
Basic Info	Enforcement Action ID
Basic Info	Eligible for Burden Reduction
Basic Info	Months
Basic Info	Qualifier

Table C-4: New Permit Data Elements	
Sub-Area	Data Element Name
What is the average amount of time your state would spend entering the data for this data family?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> > 60 minutes <input type="checkbox"/> Not Applicable

Compliance Monitoring Activity Data Element Family

The Compliance Monitoring Activity Data Element Family is designed to document compliance monitoring activities at facilities with CAFO, CSO, SSO, and pretreatment permit components. This family of data generally includes information associated with inspections such as inspection type, information characterizing the NPDES facility, and dates associated with the inspection.

New compliance monitoring activity data elements have been added to allow EPA to track compliance monitoring activities and monitor activities associated with non-point sources of pollution. Some examples of these data elements are planned end dates, inspection methods, and improved locational information such as latitude and longitude. These new compliance monitoring activity data elements improve the Agency's understanding of where environmental impacts take place.

Table C-5: WENDB Compliance Monitoring Activity Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB compliance monitoring activity data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> 60 - 90 minutes <input type="checkbox"/> 90 - 120 minutes <input type="checkbox"/> >120 minutes <input type="checkbox"/> Not Applicable

Table C-6: New Compliance Monitoring Activity Data Elements	
Sub-Area	Data Element Name
Basic Info	Compliance Monitoring Activity Planned End Date
Basic Info	Bio-Monitoring Inspection Method
Basic Info	Compliance Monitoring Action Reason
CAFO	Designation Reason
CAFO	Animal Type
CAFO	Animal Type: Other
CAFO	Animal Total Number
CAFO	Containment Type
CAFO	Containment Total Capacity
CAFO	Containment Other
CAFO	CAFO Classification
CAFO	CAFO Designation Date
CAFO	Solid Manure or Litter Generated
CAFO	Solid Manure or Litter Transferred
CAFO	Liquid Manure or Wastewater Generated
CAFO	Liquid Manure or Wastewater Transferred
CAFO	NMP Developed Date
CAFO	NMP Last Updated Date
CAFO	Is the Animal Facility Type a CAFO
CAFO	Storage: Type
CAFO	Storage: Other
CAFO	Days of Storage
CAFO	Storage Total Capacity Measure
CSO	Permitted Feature ID
CSO	Location Street Address
CSO	Longitude
CSO	Latitude
CSO	CSO Overflow Event Date
Pretreatment	Pass-through/Interference Indicator
SSO	Location Street Address
SSO	Longitude
SSO	Latitude
SSO	SSO Event Date
What is the average amount of time your state would spend entering these new compliance monitoring activity data elements for a typical permit?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> > 60 minutes <input type="checkbox"/> Not Applicable

Discharge Monitoring Reports (DMR) Data Element Family

The DMR Data Element Family generally includes self-monitoring effluent data provided by NPDES facilities. This new information is required to assist EPA with the review of effluent discharges. A new data element has been added for concentration and quantity units which can be used by EPA to interpret reported effluent values. Several other data elements have been added to characterize a facility's treatment and disposal of biosolids.

Table C-7: WENDB DMR Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB DMR data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
	<input type="checkbox"/> 60 - 90 minutes
	<input type="checkbox"/> 90 - 120 minutes
	<input type="checkbox"/> >120 minutes
	<input type="checkbox"/> Not Applicable

Table C-8: New DMR Data Elements	
Sub-Area	Data Element Name
Basic Info	Concentration Units/Quantity Units
Biosolids – Incinerator	Compliance With National Emission Standard for Beryllium
Biosolids – Incinerator	Compliance With National Emission Standard for Mercury
Biosolids - Land Application Site	Pollutant Table Met
Biosolids - Land Application Site	Does Facility Certify Pathogen Reduction for Land Application
Biosolids - Land Application Site	Does the Facility Certify Vector Attraction Reduction for Land Application
Biosolids - Surface Disposal	Does Facility Certify Pathogen Reduction for Surface Disposal
Biosolids - Surface Disposal	Does Facility Certify Attraction Reduction for Surface Disposal
What is the average amount of time your state would spend entering these new DMR data elements for a typical permit?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
<input type="checkbox"/> > 60 minutes	
<input type="checkbox"/> Not Applicable	

Violation Data Element Family

The Violation Data Element Family includes data associated with violations such as single event, effluent, and compliance schedule violations. Two new data fields have been added concerning single event violations that allow EPA to track the timing and duration of these violations. The Agency may use this information to estimate the scale of possible environmental impacts and the efficiency of efforts to return a facility to compliance.

Table C-9: WENDB Violation Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB violation data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
	<input type="checkbox"/> 60 - 90 minutes
	<input type="checkbox"/> 90 - 120 minutes
	<input type="checkbox"/> >120 minutes
	<input type="checkbox"/> Not Applicable

Table C-10: New Violation Data Elements	
Sub-Area	Data Element Name
Basic Info	Single Event Start Date
Basic Info	Single Event End Date
What is the average amount of time your state would spend entering these new violation data elements for a typical permit?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
<input type="checkbox"/> > 60 minutes	
<input type="checkbox"/> Not Applicable	

Program Reports Data Element Family

The Program Reports Data Element Family generally includes program reports submitted for NPDES subprograms such as CAFOS, CSOs, and approved local pretreatment facilities. These data elements include locational information such as latitude and longitude for CSOs that improve the Agency's understanding of where environmental impacts take place.

Table C-11: WENDB Program Reports Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB program report data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
	<input type="checkbox"/> 60 - 90 minutes
	<input type="checkbox"/> 90 - 120 minutes
	<input type="checkbox"/> >120 minutes
	<input type="checkbox"/> Not Applicable

Table C-12: New Program Reports Data Elements	
Sub-Area	Data Element Name
Biosolids	Report Coverage End Date
Biosolids	Number of Report Units
CAFO	Animal Type
CAFO	Animal Other
CAFO	Total Number
CAFO	Discharges During Year from Production Area
CAFO	Solid Manure or Litter Generated
CAFO	Liquid Manure or Wastewater Generated
CAFO	Solid Manure or Litter Transferred
CAFO	Liquid Manure or Wastewater Transferred
CAFO	Does the Facility have an NMP developed or approved by a certified planner
CAFO	Total number of Acres identified by NMP
CAFO	Total number of acres used for land application in past 12 months
CSO	Permitted Feature ID
CSO	Location Street Address
CSO	Longitude
CSO	Latitude
Pretreatment	Pass-through/Interference Indicator
Pretreatment	Local Limits Pollutants
Pretreatment	Removal Credits Application Status
Pretreatment	Date of Most Recent Removals Credits Application
Pretreatment	Removal Credits
What is the average amount of time your state would spend entering these new program reports data elements for a typical permit?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> > 60 minutes <input type="checkbox"/> Not Applicable

Enforcement Action Data Element Family

The Enforcement Action Data Element Family generally includes data regarding the enforcement action itself as well as associated compliance schedules and penalties. A new enforcement action data element has been added to document reasons for deleting enforcement actions. This data element enables EPA to improve its data management practices for enforcement action records.

Table C-13: WENDB Enforcement Action Data Elements	
	Estimated Time to Enter Currently Required WENDB Data Elements
Please indicate the average amount of time your state spends entering WENDB enforcement action data elements for a typical permit (Assuming your state is entering all of the required WENDB data elements)?	<input type="checkbox"/> < 1 minute
	<input type="checkbox"/> 1 - 5 minutes
	<input type="checkbox"/> 5 - 10 minutes
	<input type="checkbox"/> 10 - 15 minutes
	<input type="checkbox"/> 15 - 20 minutes
	<input type="checkbox"/> 20 - 30 minutes
	<input type="checkbox"/> 30 - 40 minutes
	<input type="checkbox"/> 40 - 60 minutes
	<input type="checkbox"/> 60 - 90 minutes
	<input type="checkbox"/> 90 - 120 minutes
	<input type="checkbox"/> >120 minutes
	<input type="checkbox"/> Not Applicable

Table C-14: New Enforcement Action Data Elements	
Sub-Area	Data Element Name
Basic Info	Reason for deleting Enforcement Action
What is the average amount of time your state would spend entering these new enforcement action data elements for a typical permit?	<input type="checkbox"/> < 1 minute <input type="checkbox"/> 1 - 5 minutes <input type="checkbox"/> 5 - 10 minutes <input type="checkbox"/> 10 - 15 minutes <input type="checkbox"/> 15 - 20 minutes <input type="checkbox"/> 20 - 30 minutes <input type="checkbox"/> 30 - 40 minutes <input type="checkbox"/> 40 - 60 minutes <input type="checkbox"/> > 60 minutes <input type="checkbox"/> Not Applicable

C.2 SECTION 2: Questions Related to Other State Activities

In this section, EPA requests information on other activities that states undertake to provide NPDES data.

Note: Please use the following information to convert reporting time into Full Time Equivalents (FTEs).

- 1 hour every week equals 0.025 FTEs (assuming a 40 hour work week)
- 1 day every week equals 0.20 FTEs (assuming an 8 hour work day)
- 1 week every month equals 0.25 FTEs (assuming a 40 hour work week with 30 days in each month)
- 1 month every year equals 0.08 FTEs (assuming 30 days in each month and 365 days in a year)

1) Roughly how much will your state spend to Quality Assure/Quality Control the new data elements in your NPDES Information System? Keep in mind that reporting on nonmajors is required under the NPDES PMI rule. Please quantify in terms of quarterly FTEs and/or contract dollars.

2) Roughly how much training will it take to familiarize data entry staff with the new data elements? Please quantify in terms of quarterly FTEs and/or contract dollars.

3) On an average quarterly basis, what level of effort (FTEs and/or contract dollars) will be expended on program management for the following subprograms:

CAFOs: _____
SSOs: _____
CSOs: _____
SWMs: _____
Pretreatment: _____
Biosolids: _____

4) On an average quarterly basis, how much time does your state spend entering DMR data into your NPDES Information System for a typical permit?

5) What is your estimate of the number of nonmajors in your state?

6) On an average quarterly basis, how much time (FTEs and/or contract dollars) does your state expend on the management of DMR data for your NPDES Information System?

7) Will there be an increased cost to maintain your state system with the additional data elements and the requirement that nonmajors enter their data into your NPDES Information System? If yes, please quantify these costs in terms of average quarterly FTEs and/or contract dollars. (Note: This does not apply to Direct Entry states)

8) Will your state's NPDES Information System need upgrades to submit data to the EPA? If so, how much will these upgrades cost in terms of quarterly FTEs and/or contract dollars? (Note: This does not apply to Direct Entry states)

9) When your state has aggregated all of their data into a cohesive NPDES Information System, will your state realize any savings and/or efficiencies? If yes, please explain and quantify the savings in terms of quarterly FTEs and/or contract dollars.

10) The proposed NPDES PMI Rule may possibly remove regulatory requirements for submitting the Quarterly Non-Compliance Report (QNCR), the Annual Non-Compliance Report (ANCR) and the Semi-Annual Statistical Summary. Please provide an estimate of how much your state spends preparing each of these reports in terms of quarterly FTEs and/or contract dollars.

QNCR: _____
ANCR: _____
Semi-Annual Statistical Summary: _____

C.3 SECTION 3: Definitions of Terms

Authorized State or Tribe

For the purposes of this presentation, an authorized State or Tribe is a State or Tribal government which has received authorization to implement the NPDES program from EPA.

Batch data entry

Batch data entry in ICIS-NPDES is the transmission of eXtensible Markup Language (XML) data files through the Central Data Exchange into ICIS-NPDES. States with their own systems would transfer their data to ICIS-NPDES through this electronic data transfer process.

Direct data entry

This refers to manual data entry by key punching, often in the case where the State, Tribe or EPA Region is using PCS or ICIS-NPDES as their primary NPDES data management system.

Direct User State or Tribe

In a NPDES program implemented by an authorized State or Tribe which will use ICIS-NPDES to manage the NPDES program, direct users manually enter data into ICIS-NPDES through the keyboard into web screens.

Hybrid State or Tribe

In a NPDES program implemented by an authorized State or Tribe which will use ICIS-NPDES to manage the NPDES program, hybrid users manually enter some of the data (usually non-DMR data) into ICIS-NPDES through the keyboard into web screens. They also electronically transfer the rest of the data (usually DMR data) into ICIS-NPDES; this electronic method of data entry will likely increase, especially with the availability of eDMR (electronic DMR) tools, such as NetDMR.

ICIS

The acronym ICIS stands for the Integrated Compliance Information System, developed by EPA to serve as a national multi-media data system.

Major

A major facility is defined as follows: a major municipal facility has a flow of 1 million gallons per day or greater, a service population of 10,000 or greater or a significant impact on water quality; industrial facilities are considered major facilities based on a rating system that allocates points in various categories, including flow, pollutant loadings and water quality factors. EPA Regions, States and Tribes also have the discretion to identify other facilities as major facilities due to environmental concerns.

Nonmajor

The universe of facilities regulated under the NPDES program that are not “major” facilities. Nonmajor facilities can also be referred to as “minor” facilities, although this does not denote a less important status.

PCS

The acronym PCS stands for the Permit Compliance System, which served as the national database of record for the NPDES program since 1985.

Program components

Program components refer to NPDES permit requirements associated with particular program areas. In ICIS-NPDES, a group of data elements are available to users to track program-specific data on Publicly-Owned Treatment Works (POTWs), Combined Sewer Overflows (CSOs), Sanitary Sewer Overflows (SSOs), Pretreatment, Biosolids, Stormwater, and Concentrated Animal Feeding Operations (CAFOs).

Single event violation

A Single Event Violation is a violation of a NPDES permit or regulatory requirement that is observed or determined by the authorized NPDES program (EPA Region or authorized State/local/tribal government), and is distinct from violations that are system-generated (e.g., effluent limit violations arising from DMR submission, DMR non-receipt or compliance schedule violations). An unauthorized bypass or discharge, a violation detected during an inspection, a narrative violation description reported on a DMR, and a pretreatment violation are examples of Single Event Violations.

WENDB

The acronym WENDB stands for the Water Enforcement National Data Base data elements, identified as the required data elements in the Permit Compliance System (PCS), which served as the national database of record for the NPDES program since 1985.

Wet weather sources

These are non-traditional NPDES sources which include storm water runoff from industrial and municipal sectors, discharges from concentrated animal feeding operations (CAFOs), and overflows from combined and sanitary sewer systems (CSOs, SSOs, bypass events). Such sources have been a program priority for EPA’s enforcement and compliance program since 1998.

Appendix D – Detailed Schedules of Savings and Costs

Tables D-1 and D-2 break down the costs and cost savings shown in Section 4.5, presenting how they accrue to approved NPDES programs, regulated entities, and EPA. Note that numbers presented here have been rounded to the nearest ten thousand. As a result, totals may not sum to those shown in Table 4-16 and Table 4-17, although they will be within the nearest \$20,000.

Table D-1: Schedule of Savings and Costs (3% Discount Rate)

Year ¹	Annual Costs	Annual Savings	Annual Net Savings	Cumulative Total Costs	Cumulative Total Savings	Cumulative Net Savings
Approved NPDES Programs						
0	\$ 43,100,000	\$ -	\$ (43,100,000)	\$ 43,100,000	\$ -	\$ (43,100,000)
1	\$ 18,060,000	\$ 40,530,000	\$ 22,470,000	\$ 61,160,000	\$ 40,530,000	\$ (20,630,000)
2	\$ 17,530,000	\$ 39,350,000	\$ 21,820,000	\$ 78,690,000	\$ 79,870,000	\$ 1,180,000
3	\$ 17,020,000	\$ 38,200,000	\$ 21,180,000	\$ 95,710,000	\$ 118,070,000	\$ 22,360,000
4	\$ 16,520,000	\$ 37,090,000	\$ 20,570,000	\$ 112,230,000	\$ 155,160,000	\$ 42,930,000
5	\$ 16,000,000	\$ 38,610,000	\$ 22,610,000	\$ 128,230,000	\$ 193,770,000	\$ 65,540,000
6	\$ 15,440,000	\$ 38,210,000	\$ 22,770,000	\$ 143,670,000	\$ 231,990,000	\$ 88,320,000
7	\$ 14,990,000	\$ 37,100,000	\$ 22,110,000	\$ 158,660,000	\$ 269,090,000	\$ 110,430,000
8	\$ 14,550,000	\$ 36,020,000	\$ 21,470,000	\$ 173,210,000	\$ 305,110,000	\$ 131,900,000
9	\$ 14,130,000	\$ 34,970,000	\$ 20,840,000	\$ 187,340,000	\$ 340,080,000	\$ 152,740,000
10	\$ 13,800,000	\$ 33,950,000	\$ 20,150,000	\$ 201,140,000	\$ 374,030,000	\$ 172,900,000
Regulated Entities						
0	\$ 21,160,000	\$ -	\$ (21,160,000)	\$ 21,160,000	\$ -	\$ (21,160,000)
1	\$ 1,010,000	\$ 1,210,000	\$ 200,000	\$ 22,170,000	\$ 1,210,000	\$ (20,960,000)
2	\$ 930,000	\$ 1,210,000	\$ 280,000	\$ 23,100,000	\$ 2,420,000	\$ (20,680,000)
3	\$ 1,240,000	\$ 1,210,000	\$ (30,000)	\$ 24,340,000	\$ 3,630,000	\$ (20,710,000)
4	\$ 800,000	\$ 1,210,000	\$ 410,000	\$ 25,140,000	\$ 4,840,000	\$ (20,300,000)
5	\$ 740,000	\$ 1,250,000	\$ 510,000	\$ 25,880,000	\$ 6,090,000	\$ (19,780,000)
6	\$ 710,000	\$ 1,220,000	\$ 510,000	\$ 26,590,000	\$ 7,310,000	\$ (19,280,000)
7	\$ 690,000	\$ 1,180,000	\$ 490,000	\$ 27,280,000	\$ 8,490,000	\$ (18,790,000)
8	\$ 1,000,000	\$ 1,150,000	\$ 150,000	\$ 28,280,000	\$ 9,640,000	\$ (18,640,000)
9	\$ 650,000	\$ 1,110,000	\$ 460,000	\$ 28,930,000	\$ 10,760,000	\$ (18,170,000)
10	\$ 630,000	\$ 1,080,000	\$ 450,000	\$ 29,570,000	\$ 11,840,000	\$ (17,730,000)
EPA						
0	\$ 10,120,000	\$ -	\$ (10,120,000)	\$ 10,120,000	\$ -	\$ (10,120,000)
1	\$ 1,060,000	\$ 2,280,000	\$ 1,220,000	\$ 11,190,000	\$ 2,280,000	\$ (8,910,000)
2	\$ 1,260,000	\$ 2,210,000	\$ 950,000	\$ 12,450,000	\$ 4,500,000	\$ (7,950,000)
3	\$ 970,000	\$ 2,150,000	\$ 1,180,000	\$ 13,420,000	\$ 6,650,000	\$ (6,770,000)
4	\$ 880,000	\$ 2,090,000	\$ 1,210,000	\$ 14,290,000	\$ 8,730,000	\$ (5,560,000)
5	\$ 860,000	\$ 2,040,000	\$ 1,180,000	\$ 15,150,000	\$ 10,770,000	\$ (4,370,000)
6	\$ 1,350,000	\$ 2,060,000	\$ 710,000	\$ 16,500,000	\$ 12,840,000	\$ (3,670,000)
7	\$ 910,000	\$ 2,000,000	\$ 1,090,000	\$ 17,410,000	\$ 14,840,000	\$ (2,570,000)
8	\$ 780,000	\$ 1,940,000	\$ 1,160,000	\$ 18,200,000	\$ 16,780,000	\$ (1,410,000)
9	\$ 760,000	\$ 1,890,000	\$ 1,130,000	\$ 18,960,000	\$ 18,670,000	\$ (290,000)
10	\$ 740,000	\$ 1,830,000	\$ 1,090,000	\$ 19,700,000	\$ 20,500,000	\$ 810,000

Note that numbers in table have been rounded to the nearest ten thousand.
1. Years after the effective date of the rule.

Table D-2: Schedule of Savings and Costs (7% Discount Rate)

Year ¹	Annual Costs	Annual Savings	Annual Net Savings	Cumulative Total Costs	Cumulative Total Savings	Cumulative Net Savings
Approved NPDES Programs						
0	\$ 43,100,000	\$ -	\$ (43,100,000)	\$ 43,100,000	\$ -	\$ (43,100,000)
1	\$ 17,380,000	\$ 39,010,000	\$ 21,630,000	\$ 60,490,000	\$ 39,010,000	\$ (21,470,000)
2	\$ 16,240,000	\$ 36,460,000	\$ 20,220,000	\$ 76,730,000	\$ 75,470,000	\$ (1,260,000)
3	\$ 15,180,000	\$ 34,070,000	\$ 18,890,000	\$ 91,910,000	\$ 109,550,000	\$ 17,640,000
4	\$ 14,190,000	\$ 31,850,000	\$ 17,660,000	\$ 106,100,000	\$ 141,390,000	\$ 35,290,000
5	\$ 13,220,000	\$ 31,910,000	\$ 18,690,000	\$ 119,320,000	\$ 173,300,000	\$ 53,980,000
6	\$ 12,280,000	\$ 30,410,000	\$ 18,130,000	\$ 131,600,000	\$ 203,710,000	\$ 72,100,000
7	\$ 11,480,000	\$ 28,420,000	\$ 16,940,000	\$ 143,080,000	\$ 232,130,000	\$ 89,040,000
8	\$ 10,730,000	\$ 26,560,000	\$ 15,830,000	\$ 153,810,000	\$ 258,680,000	\$ 104,870,000
9	\$ 10,030,000	\$ 24,820,000	\$ 14,790,000	\$ 163,840,000	\$ 283,500,000	\$ 119,660,000
10	\$ 9,430,000	\$ 23,200,000	\$ 13,770,000	\$ 173,270,000	\$ 306,700,000	\$ 133,430,000
Regulated Entities						
0	\$ 21,160,000	\$ -	\$ (21,160,000)	\$ 21,160,000	\$ -	\$ (21,160,000)
1	\$ 970,000	\$ 1,170,000	\$ 200,000	\$ 22,130,000	\$ 1,170,000	\$ (20,970,000)
2	\$ 870,000	\$ 1,120,000	\$ 250,000	\$ 23,000,000	\$ 2,290,000	\$ (20,710,000)
3	\$ 1,100,000	\$ 1,080,000	\$ (20,000)	\$ 24,100,000	\$ 3,370,000	\$ (20,740,000)
4	\$ 690,000	\$ 1,040,000	\$ 350,000	\$ 24,790,000	\$ 4,400,000	\$ (20,380,000)
5	\$ 610,000	\$ 1,040,000	\$ 430,000	\$ 25,400,000	\$ 5,440,000	\$ (19,950,000)
6	\$ 570,000	\$ 970,000	\$ 400,000	\$ 25,960,000	\$ 6,410,000	\$ (19,550,000)
7	\$ 530,000	\$ 910,000	\$ 380,000	\$ 26,490,000	\$ 7,320,000	\$ (19,180,000)
8	\$ 730,000	\$ 850,000	\$ 120,000	\$ 27,230,000	\$ 8,160,000	\$ (19,070,000)
9	\$ 460,000	\$ 790,000	\$ 330,000	\$ 27,690,000	\$ 8,950,000	\$ (18,740,000)
10	\$ 430,000	\$ 740,000	\$ 310,000	\$ 28,120,000	\$ 9,690,000	\$ (18,430,000)
EPA						
0	\$ 10,120,000	\$ -	\$ (10,120,000)	\$ 10,120,000	\$ -	\$ (10,120,000)
1	\$ 1,020,000	\$ 2,200,000	\$ 1,180,000	\$ 11,150,000	\$ 2,200,000	\$ (8,950,000)
2	\$ 1,170,000	\$ 2,050,000	\$ 880,000	\$ 12,320,000	\$ 4,250,000	\$ (8,070,000)
3	\$ 860,000	\$ 1,920,000	\$ 1,060,000	\$ 13,180,000	\$ 6,170,000	\$ (7,010,000)
4	\$ 750,000	\$ 1,790,000	\$ 1,040,000	\$ 13,930,000	\$ 7,960,000	\$ (5,970,000)
5	\$ 710,000	\$ 1,690,000	\$ 980,000	\$ 14,640,000	\$ 9,650,000	\$ (4,990,000)
6	\$ 1,080,000	\$ 1,640,000	\$ 560,000	\$ 15,720,000	\$ 11,290,000	\$ (4,430,000)
7	\$ 700,000	\$ 1,530,000	\$ 830,000	\$ 16,420,000	\$ 12,820,000	\$ (3,590,000)
8	\$ 580,000	\$ 1,430,000	\$ 850,000	\$ 16,990,000	\$ 14,250,000	\$ (2,740,000)
9	\$ 540,000	\$ 1,340,000	\$ 800,000	\$ 17,530,000	\$ 15,590,000	\$ (1,940,000)
10	\$ 510,000	\$ 1,250,000	\$ 740,000	\$ 18,040,000	\$ 16,850,000	\$ (1,190,000)

Note that numbers in table have been rounded to the nearest ten thousand.
1. Years after the effective date of the rule.

Appendix E – Summary of Changes to NPDES Regulations

This appendix provides a complete listing of the changes to EPA’s NPDES regulations resulting from the final electronic reporting rule. It also provides an indication of the change in labor burden (i.e., an increase or decrease) resulting from each regulatory change and cross-references the sections of this economic analysis that discuss how the analysis accounts for the changes in labor burden.

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
Changes to Existing NPDES Regulations			
9.1	This citation inserts a citation to the ICR accompanying the final rule.	<ul style="list-style-type: none"> • None. This text is a compilation of EPA’s ICRs in one table. 	N/A
122.22(e)	This regulatory text requires signers of electronic NPDES notices, certifications, reports, and waiver requests to be compliant with CROMERR (Part 3) and the NPDES Electronic Reporting Rule (Part 127).	<ul style="list-style-type: none"> • None. This text is a reference to EPA’s existing regulation (CROMERR) and this final rule. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
122.26(b)(15)(i)(C)	This regulatory text requires the electronic submission of Low Erosivity Waivers (LEWs) to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions. Part 127 does not change the timing of these waiver requests. This is NPDES Data Group Number 2.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Increase for authorized NPDES programs to enter associated data. 	<ul style="list-style-type: none"> • Section 2.6 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.2 (data entry costs)
122.26(g)(1)(iii)	This regulatory text requires the electronic submission of No Exposure Certifications (NECs) to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions. Part 127 does not change the timing of these certifications. This is NPDES Data Group Number 2.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Increase for authorized NPDES programs to enter associated data. 	<ul style="list-style-type: none"> • Section 2.5 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.2 (data entry costs)
122.28(b)(2)	This regulatory text requires the electronic submission of Notices of Intent to discharge (NOIs) to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions. Part 127 does not change the timing of these notices. This is NPDES Data Group Number 2.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Increase for authorized NPDES programs to enter associated data. 	<ul style="list-style-type: none"> • Section 2 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.2 (data entry costs)

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
122.34(g)(3)	This regulatory text requires the electronic submission of Phase II MS4s program reports to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 6.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2.7 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.41(l)(4)(i)	This regulatory text requires the electronic submission of Discharge Monitoring Reports or Forms Provided or Specified by the Director (DMRs) to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions. Part 127 does not change the timing of these reports. This is NPDES Data Group Number 3.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.41(l)(6)(i)	This regulatory text requires the electronic submission of Sewer Overflow and Bypass Event Reports for reporting sewer overflows that result in noncompliance that may “endanger health or the environment.” These electronic submissions must be compliant with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the timing of these reports after a sewer overflow (submission of this report must “be provided within 5 days of the time the permittee becomes aware of the circumstances”) or the amount of information in these submissions. This is NPDES Data Group Number 9.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Sections 2.8 and 2.9 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.41(l)(7)	This regulatory text requires the electronic submission of Sewer Overflow and Bypass Event Reports for reporting all other sewer overflows that result in noncompliance. These electronic submissions must be compliant with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the timing of these reports after a sewer overflow (submission of this report must be provided “at the time monitoring reports are submitted”) or the amount of information in these submissions. This is NPDES Data Group Number 9.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Sections 2.8 and 2.9 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.41(l)(9)	This regulatory text requires NPDES permittees to submit their electronic NPDES notices, certifications, reports, and waiver requests to the EPA designated initial recipient for each NPDES data group. This requirement requires NPDES permittees to identify the initial recipient at the time of each electronic submission.	<ul style="list-style-type: none"> • Increase for regulated entity registration and training on the initial recipient’s electronic reporting systems. 	<ul style="list-style-type: none"> • Section 4.4.1 (regulated entity registration and training)

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
122.41(m)(3)	This regulatory text requires the electronic submission of Sewer Overflow Event Reports for reporting bypass events at POTWs. This would include anticipated bypass events (submission required ten days prior to bypass) and unanticipated bypass events (submission required five days after bypass event). These electronic submissions must be compliant with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the timing of these submission after a bypass event or the amount of information in these submissions. This is NPDES Data Group Number 9.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Sections 2.8 and 2.9 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.42(c)	This regulatory text requires the electronic submission of Phase I MS4s program reports to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 6.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2.7 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.42(e)(4)	This regulatory text requires the electronic submission of Concentrated Animal Feeding Operation (CAFO) Annual Program Reports to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 5.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net increase for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2.4 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
122.43(a)	This section requires the NPDES permitting authority to “establish conditions, as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of CWA and regulations.” Part 127 adds to the list of examples the need for NPDES permitting authorities to provide for and assure compliance with CROMERR (Part 3) and the NPDES Electronic Reporting Rule (Part 127).	<ul style="list-style-type: none"> • None. This text is a reference to EPA’s existing regulation (CROMERR) and this final rule. The changes in burden due to this rule are captured elsewhere in this table. 	N/A

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
122.44(i)(2)	This section requires permit authorities require permittees to report monitoring results on a frequency dependent on the nature and effect of the discharge, but in no case less than once a year. For sewage sludge use or disposal practices, requirements to monitor and report results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the sewage sludge use or disposal practice; minimally this shall be as specified in 40 CFR part 503 (where applicable), but in no case less than once a year. This final rule requires these monitoring report submissions to be to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127).	<ul style="list-style-type: none"> • None. This text is a reference to EPA's existing regulations (CROMERR and the NPDES signatory requirements) and this final rule. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
122.48(c)	This section re-states the requirements for recording and reporting of monitoring results. This final rule requires these monitoring report submissions to be to be in compliance with CROMERR (Part 3) and the NPDES Electronic Reporting Rule (Part 127).	<ul style="list-style-type: none"> • None. This text is a reference to EPA's existing regulation (CROMERR) and this final rule. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
122.63(f)	This new examples makes clear that the incorporation of electronic reporting requirements into NPDES permits is a minor modification.	<ul style="list-style-type: none"> • None. Part 127 requires NPDES permitting authorities to incorporate electronic reporting requirements when they issue or re-issue NPDES permits. This regulatory text makes clear that authorized NPDES programs have the option to incorporate electronic reporting requirements into NPDES permits through use of a minor modification. 	N/A
122.64(c)	This regulatory text requires the electronic submission of Notices of Termination (NOTs) from general permit covered facilities to be in compliance with CROMERR (Part 3), NPDES signatory requirements (Part 122.22), and the NPDES Electronic Reporting Rule (Part 127). Part 127 sets the start date for these electronic submissions. Part 127 does not change the timing of these waiver requests. This is NPDES Data Group Number 2.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Increase for authorized NPDES programs to enter associated data. 	<ul style="list-style-type: none"> • Section 2 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.2 (data entry costs)
123.22(g)	This regulatory text requires a state, tribe, or territory that newly seeks to implement an NPDES program to identify the initial recipient for each NPDES data group.	<ul style="list-style-type: none"> • Increase for authorized NPDES programs to make initial recipient decisions. 	<ul style="list-style-type: none"> • Section 4.3.3

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
123.24	Any State that seeks to administer the NPDES program must submit a Memorandum of Agreement. The Memorandum of Agreement shall be executed by the State Director and the Regional Administrator and shall become effective when approved by the EPA Administrator. The MOA must include provisions specifying the frequency and content of reports, documents and other information which the State is required to submit to EPA. This final rule requires these provisions to implement the requirements of 40 CFR 123.41(a), 123.43, and 40 CFR part 127 (including the required data elements in appendix A to Part 127). This section helps implement NPDES Data Group Number 1.	<ul style="list-style-type: none"> • Increase for authorized NPDES programs to update Memoranda of Agreement. 	<ul style="list-style-type: none"> • Section 4.3.3
123.25	This section lists all the provisions that authorized NPDES programs must have legal authority to implement. This final rule require lists electronic reporting (40 CFR 127).	<ul style="list-style-type: none"> • None. This text is a reference to this final rule. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
123.26	This final rule makes clear that authorized NPDES programs are required to implement and maintain an automated, computerized system that is capable of identifying and tracking all facilities and activities subject to the State Director's authority (e.g., creating a complete inventory of NPDES permitted facilities) and any instances of noncompliance with permit or other program requirements. This final rule makes clear that authorized states, tribes, and territories can elect to use EPA's national NPDES data system. This final rule makes clear that data transfers from authorized NPDES programs to EPA must be timely and complete and that failure to do so will require EPA to be the initial recipient as defined in Part 127. This final rule also makes clear that the authorized NPDES program's compliance monitoring program must be conducted in a manner designed to protect surface waters and public health. This section helps implement NPDES Data Group Number 1.	<ul style="list-style-type: none"> • Increase for authorized NPDES programs to expand and update existing data systems and manage data transfers to EPA. 	<ul style="list-style-type: none"> • Section 4.3.1 (electronic tool implementation costs) • Section 4.3.2 (electronic reporting operation and maintenance costs)
123.41(a)	This section re-states that data transfers from authorized NPDES programs to EPA must be timely and complete and that failure to do so will require EPA to be the initial recipient as defined in Part 127. This section helps implement NPDES Data Group Number 1.	<ul style="list-style-type: none"> • Increase for regulated entity re-registration in a limited number of states where the analysis assumes EPA would take over initial recipient status. 	<ul style="list-style-type: none"> • Section 4.4.1 (re-registration costs)
123.43(d)	This section re-states that data transfers from authorized NPDES programs to EPA must be timely and complete in compliance with Part 127. This section helps implement NPDES Data Group Number 1.	<ul style="list-style-type: none"> • None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
123.45	This section replaces the Quarterly Noncompliance Report (QNCR), Semi-annual statistical summary report, and the Annual Noncompliance Report (ANCR) with the NPDES Noncompliance Report (NNCR). This final rule places the burden on EPA to prepare and publish the NNCR. EPA will start publication of the NNCR six years after the effective date of the final rule. Until that date, states will continue to submit the QNCR, annual statistical summary report, and the ANCR.	<ul style="list-style-type: none"> • Decrease for authorized NPDES programs and EPA regions to no longer prepare these reports. • Increase for EPA headquarters to prepare new national report. 	<ul style="list-style-type: none"> • Sections 4.4.7 and 6.2.3 (savings from eliminating reports) • Section 4.4.4 (cost of new report)
NPDES Electronic Reporting Rule - Part 127			

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
127.1	This section identifies the facilities and entities that are required to submit electronic NPDES notices, certifications, waiver requests, and reports.	<ul style="list-style-type: none"> None. This section helps define the extent of the rulemaking. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.2	This section defines the terms used in this rule.	<ul style="list-style-type: none"> None. This section helps define the terms used in this rulemaking. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.11	This section defines the data that NPDES regulated entities must report to their authorized NPDES program.	<ul style="list-style-type: none"> None. This section helps define the types of documents covered by this rulemaking. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.12	This section restates that all electronic reporting must be in compliance with CROMERR and EPA's NPDES signatory requirements [122.22 and 403.12(l)]	<ul style="list-style-type: none"> None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.13	This section confirms that owners and operators of NPDES regulated entities are responsible for the quality of the information that they electronically submit to their authorized NPDES program.	<ul style="list-style-type: none"> None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.14	This confirms that NPDES regulated entities must submit timely, accurate, complete, and nationally consistent data with their electronic submissions. This section defines each of these terms.	<ul style="list-style-type: none"> None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.15	This section provides NPDES regulated entities with the option to seek a temporary, permanent, or episodic waiver from their authorized NPDES program or the initial recipient (as defined by EPA). This section provides instructions on how NPDES regulated entities can apply for these waivers.	<ul style="list-style-type: none"> Increase for authorized NPDES programs to enter data for entities with waivers. 	<ul style="list-style-type: none"> Section 4.1 (impact of assumption about percent of entities receiving waivers)
127.16	This section provides the activities that NPDES regulated entities must perform in order to switch from paper to electronic reporting.	<ul style="list-style-type: none"> None. This section helps define the extent of the rulemaking. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.21	This section defines the data that authorized NPDES programs must report to EPA.	<ul style="list-style-type: none"> Increase for authorized NPDES programs to enter and share data with EPA. 	<ul style="list-style-type: none"> Section 4.3.2 (managing data transfer) Section 2 (frequency of reporting) Section 4.4.2 (data entry costs)

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
127.22	This section confirms that authorized NPDES programs are responsible for the quality of the information that they electronically submit to EPA.	<ul style="list-style-type: none"> None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.23	This section confirms that authorized NPDES programs must submit timely, accurate, complete, and nationally consistent data to EPA. This section defines each of these terms.	<ul style="list-style-type: none"> None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
127.24	This section defines the tasks that authorized NPDES programs must perform to oversee the issuance of waivers from electronic reporting.	<ul style="list-style-type: none"> Increase for authorized NPDES programs to develop and renew waiver criteria. 	<ul style="list-style-type: none"> Section 4.3.3 (developing waiver criteria) Section 4.1 (impact of assumption about percent of entities receiving waivers)
127.25	This section re-states the requirement that authorized states, tribes, and territories update their NPDES program to implement electronic reporting in compliance with 40 CFR 123.62(e).	<ul style="list-style-type: none"> None. This is an existing regulatory requirement that predated this final rule. 	N/A
127.26	This section provides the activities that authorized NPDES programs must perform in order to switch from paper to electronic reporting. This includes:		
	(a) identification of the initial recipient;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to make initial recipient decisions. 	<ul style="list-style-type: none"> Section 4.3.3
	(b) updating state NPDES data systems;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to expand and update existing data systems. 	<ul style="list-style-type: none"> Section 4.3.1
	(c) initial data transfer to EPA to meeting Phase 1 and 2 deadlines;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to enter initial data. 	<ul style="list-style-type: none"> Section 4.4.2 (initial data entry)
	(d) maintaining data transfers to EPA in compliance with this rule;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to manage data transfers to EPA. 	<ul style="list-style-type: none"> Section 4.3.2
	(e) updating state regulations and policies in compliance with 40 CFR 123.62(e);	<ul style="list-style-type: none"> None. This is an existing regulatory requirement that predated this final rule. 	N/A
	(f) incorporating electronic reporting requirements in NPDES permits after the effective date of the final rule;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to modify permits. 	<ul style="list-style-type: none"> Section 4.3.3
	(g) optional method to collect construction stormwater general permit reports – “Hybrid Method;”	<ul style="list-style-type: none"> Decrease for regulated entities that use this method. 	<ul style="list-style-type: none"> Section 4.4.1
	(h) requirement to submit an implementation plan to EPA one year after the effective date of the final rule;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to prepare implementation plans. 	<ul style="list-style-type: none"> Section 4.3.3
(i) requirement for states to submit an update of their waiver approval process on a five year schedule;	<ul style="list-style-type: none"> Increase for authorized NPDES programs to renew waiver criteria. 	<ul style="list-style-type: none"> Section 4.3.3 	

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
	(j) requirement for states to work with EPA to assess the electronic reporting participation rate for each NPDES data group.	<ul style="list-style-type: none"> • Increase for EPA to assess participation rates and conduct oversight. 	<ul style="list-style-type: none"> • Section 4.3.3
127.27	This section defines the process for identifying the initial recipient, which is a term used throughout the final rule.	<ul style="list-style-type: none"> • Increase for authorized NPDES programs to make initial recipient decisions. 	<ul style="list-style-type: none"> • Section 4.3.3
Appendix A to Part 127	This appendix defines the data that must be electronically submitted, collected, managed, and shared between NPDES regulated entities, authorized NPDES programs, and EPA. Table 1 defines the NPDES Data Groups used in this final rule.	<ul style="list-style-type: none"> • The impact of Appendix A is captured throughout this table. 	N/A
Changes to Existing NPDES Regulations			
403.10(f)(2)(viii)	This section requires the Approval Authority to regularly notify the Control Authority of their obligation to submit electronic reports in compliance with this final rule. This can be done through permit renewal process.	<ul style="list-style-type: none"> • None. The changes in burden due to this rule are captured elsewhere in this table. 	N/A
403.12(e)	This section requires categorical industrial users (CIUs) to submit their semi-annual compliance monitoring reports electronically in compliance with this final rule when their Control Authority is an authorized state, tribe, or territory or EPA. Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 8.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. 	<ul style="list-style-type: none"> • Section 2.3 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition)
403.12(h)	This section requires significant industrial users (SIUs) not subject to categorical standards to submit their semi-annual compliance monitoring reports electronically in compliance with this final rule when their Control Authority is an authorized state, tribe, or territory or EPA. Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 8.	<ul style="list-style-type: none"> • Net decrease for authorized NPDES programs to process forms, enter data, and notify regulated entities of the reporting requirements. 	<ul style="list-style-type: none"> • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs) • Section 4.4.3 (SIU notifications)
403.12(i)	This section requires Control Authorities to electronically submit their Pretreatment Program Report. Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information submitted. This is NPDES Data Group Number 7.	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2.11 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)
501.21	This section eliminates the annual report that states, tribes, or territories, who are authorized by EPA to implement the Federal biosolids program (40 CFR 503), must annually submit to EPA.	<ul style="list-style-type: none"> • Decrease for authorized NPDES programs and EPA regions to no longer prepare these reports. 	<ul style="list-style-type: none"> • Sections 4.4.7 and 6.2.3 (savings from eliminating reports)

EPA Regulatory Citation 40 CFR	Summary of Changes in Final NPDES Electronic Reporting Rule	Changes in Burden	For More Information (Economic Analysis Section)
503.18, 503.28, 503.48	<p>This section requires Class I sludge management facilities, POTWs (as defined in 40 CFR 501.2) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more to electronically submit their annual report. Part 127 sets the start date for these electronic submissions; however, Part 127 does not change the frequency of these submissions or the amount of information in these submissions. This is NPDES Data Group Number 4.</p>	<ul style="list-style-type: none"> • Increase during transition for a small percentage of regulated entities that must dual report. • No net change for regulated entities at full implementation. • Net decrease for authorized NPDES programs to process forms and enter data. 	<ul style="list-style-type: none"> • Section 2.11 (number of entities and reporting frequency) • Sections 3.3 and 4.4.2 (reporting during transition) • Section 4.4.7 (processing savings) • Section 4.4.2 (data entry costs)

Appendix F – Implementation Schedule

EPA developed the implementation schedule for this final rule after careful analysis and extensive consultation with authorized NPDES programs and many other stakeholders. This implementation schedule balances the goals and benefits of electronic reporting with the practical challenges facing authorized NPDES programs and regulated entities. For example, some authorized NPDES programs noted that they compete against other agencies for the time and resources of a central shared information technology staff. For these authorized NPDES programs the implementation plan (IP) may need to be tailored to account for their unique circumstances. The transition from paper to electronic reporting will require close coordination and cooperation between EPA and authorized NPDES programs. These IPs will provide an effective means for documenting all necessary tasks for a timely and orderly transition to electronic reporting.

As previously noted, the benefits of this final rule include accelerated resource savings that states, tribes, and territories will realize through reduced data entry burden and reduced effort in responding to public requests for data, consistent requirements for electronic reporting across all states, tribes, and territories, increased data quality, and more timely access to NPDES program data in an electronic format for EPA, states, tribes, and territories, regulated entities, and the public. These benefits and savings will be realized sooner the more quickly a state can implement the final rule. Under the final rule, a complete set of information for the regulated universe will be required no later than five years after the effective date of the final rule. In this final rule, EPA is adopting the timeline recommended by authorized NPDES programs and if participation goals are not met, EPA will issue individual notices to require NPDES-regulated entities to use the authorized NPDES program’s electronic reporting system. The combination of the deadlines in this final rule, current technology, and EPA’s plan to issue individual notices will help maintain a steady and measurable pace towards electronic reporting in a reasonable time period.

Given the different types of NPDES program data, EPA is phasing in the electronic collection, management, and transfer of NPDES program data (Appendix A to 40 CFR part 127) on the following schedule.

Key Milestones	Date
Final NPDES Electronic Reporting Rule – Effective Date	Sixty days after publication in the Federal Register
Authorized NPDES programs will start incorporating the new electronic reporting requirements into new or re-issued NPDES permits upon the effective date of this final rule. For example, changes to 40 CFR part 122.41 must be incorporated into any NPDES permit that is issued on or after the effective date of this final rule. This includes the requirement that NPDES permittees identify the initial recipient at the time of each electronic submission [see 40 CFR 122.41(l)(9)]. Authorized NPDES programs can incorporate electronic reporting requirements into NPDES permits through use of a minor modification process [see 40 CFR 122.63(f)].	Effective Date of Final Rule
A state, tribe, or territory that seeks authorization to implement an NPDES program must describe if it is requesting to be the initial recipient of electronic NPDES information from NPDES-regulated facilities for specific NPDES data groups. See 40 CFR 123.22(g) and appendix A to 40 CFR 127.	90 days after the Effective Date of Final Rule

Key Milestones	Date
<p>Authorized NPDES programs will decide the NPDES data groups for which they wish to be the initial recipient of electronic NPDES information from NPDES-regulated entities. The final rule uses an ‘opt-out’ approach so these authorized programs will need to provide notice to EPA if they wish for EPA to be the initial recipient for one or more of their NPDES data groups. These notices should be sent to EPA within 120 days of the effective date of the final rule.</p>	<p>120 days after the Effective Date of Final Rule</p>
<p>EPA will publish on its website and in the <u>Federal Register</u> a listing of the initial recipients for electronic NPDES information from NPDES-regulated entities by state, tribe, or territory and by NPDES data group. This listing will provide NPDES-regulated entities the initial recipient of their NPDES electronic data submissions and the due date for these NPDES electronic data submissions.</p>	<p>210 days after the promulgation date for the final rule</p>
<p>Authorized NPDES programs will electronically transmit to EPA basic facility and permit information (see list of data elements in DCN 0007) for all permits as well as other data necessary for implementation of Phase 1 data collection within nine months after the effective date of the final rule. Authorized NPDES programs often collect these data from paper individual NPDES permit applications and forms submitted by NPDES regulated entities; however, some states collect these data from NPDES regulated entities through electronic reporting systems.</p>	<p>Within nine months of the Effective Date of Final Rule</p>
<p>One year after the effective date of the final rule, authorized NPDES programs will start sharing with EPA their state performance data, which includes information generated from compliance monitoring (e.g., inspections), violation determinations, and enforcement actions.</p>	<p>Starting one year after the Effective Date of Final Rule</p>
<p>EPA and authorized NPDES programs will begin electronically receiving DMRs from all DMR filers [40 CFR 122.41(l)(4)] and start sharing these data with the designated EPA and state NPDES data systems.</p>	<p>Starting one year after the Effective Date of Final Rule</p>
<p>All NPDES regulated entities in states where EPA is the authorized NPDES biosolids program (currently 42 of 50 states and all other tribal lands and territories) must electronically submit their Sewage Sludge/Biosolids Annual Program Reports [40 CFR 503] to EPA.</p>	<p>Starting one year after the Effective Date of Final Rule</p>
<p>Authorized NPDES programs will submit an IP to EPA for EPA’s review to ensure that authorized NPDES programs will meet the Phase 2 electronic reporting deadline. The content of these plans must provide enough detail (e.g., tasks, milestones, roles and responsibilities, necessary resources) to ensure that EPA and authorized NPDES programs can work together to successfully implement electronic reporting. The IP will also document the process for evaluating and approving temporary and permanent electronic reporting waivers from NPDES regulated entities.</p>	<p>One year after the Effective Date of Final Rule</p>
<p>EPA will separately calculate the electronic reporting participation rate for each authorized NPDES program and for DMRs and the Sewage Sludge/Biosolids Annual Program Reports. EPA will assess the electronic reporting participation rate for individually permitted facilities separate from the electronic reporting participation rate for general permit covered facilities for DMRs.</p>	<p>Eighteen months after the Effective Date of Final Rule and annually thereafter</p>

Key Milestones	Date
Per existing NPDES regulations [see 40 CFR 123.62(e)], authorized states, tribes, and territories will finish any necessary regulatory or statutory changes to their NPDES programs.	Two years after the Effective Date of Final Rule
Authorized NPDES programs will electronically transmit to EPA the data necessary for implementation of Phase 2 data collection (three months prior to Phase 2 deadline).	Within four years and nine months of the Effective Date of Final Rule
<p>NPDES regulated entities will start electronically submitting their Phase 2 data. This information includes:</p> <ul style="list-style-type: none"> • General Permit Reports [Notices of Intent to discharge (NOIs); Notices of Termination (NOTs); No Exposure Certifications (NOEs); Low Erosivity Waivers or Other Waivers from Stormwater Controls (LEWs)] [40 CFR 122.26(b)(15), 122.28 and 124.5]; • Sewage Sludge/Biosolids Annual Program Reports [40 CFR 503] – where the state is the authorized NPDES program; • Concentrated Animal Feeding Operation (CAFO) Annual Program Reports [40 CFR 122.42(e)(4)]; • Municipal Separate Storm Sewer System (MS4) Program Reports [40 CFR 122.34(g)(3) and 122.42(c)]; • Pretreatment Program Reports [40 CFR 403.12(i)]; • Significant Industrial User Compliance Reports in Municipalities Without Approved Pretreatment Programs [40 CFR 403.12(e) and (h)]; • Sewer Overflow/Bypass Event Reports [40 CFR 122.41(l)(4), (l)(6) and (7), (m)(3)]; and • CWA Section 316(b) Annual Reports [40 CFR 125 Subpart J] 	Starting five years after the Effective Date of Final Rule
Authorized NPDES programs will also need to re-submit their waiver process descriptions to EPA for review on a five year cycle. EPA will inform the state if its waiver process description is inadequate. This will allow EPA and authorized NPDES programs to assess the effectiveness of the waiver process against advances in information technology.	Starting five years after the Effective Date of Final Rule
EPA will separately calculate the electronic reporting participation rate for each authorized NPDES program and for each NPDES data group.	Five years and six months after the Effective Date of Final Rule and annually thereafter

Key Milestones	Date
<p>The final rule will also lighten the reporting burden currently placed on the authorized NPDES programs. Upon successful implementation of Phase 1 and 2, authorized NPDES programs will stop generating the Quarterly Non-Compliance Report (QNCR), the Annual Non-Compliance Report (ANCR), the Semi-Annual Statistical Summary Report, and the Part 501 annual biosolids report.</p>	<p>Starting six years after the Effective Date of Final Rule</p>
<p>EPA will starting publishing the NPDES Noncompliance Report (NNCR).</p>	<p>Starting six years after the Effective Date of Final Rule with annual and quarterly updates thereafter</p>

The NPDES Electronic Reporting Rule also requires each authorized NPDES program to ensure that their Memorandum of Agreement (MOA) with the Regional Administrator contains, “Provisions specifying the frequency and content of reports, documents and other information which the State is required to submit to EPA. The State shall allow EPA to routinely review State records, reports, and files relevant to the administration and enforcement of the approved program. State reports may be combined with grant reports where appropriate. These procedures must also implement the requirements of 40 CFR 123.41(a), §123.43, and 40 CFR part 127 (including the required data elements in appendix A to Part 127).” There is no deadline as EPA will work collaboratively with each authorized NPDES program on the appropriate timing for any revisions to the governing MOA.

The NPDES Electronic Reporting Rule also makes clear that authorized NPDES programs are required to implement and maintain an automated, computerized system that is capable of identifying and tracking all facilities and activities subject to the State Director’s authority (e.g., creating a complete inventory of NPDES permitted facilities) and any instances of noncompliance with permit or other program requirements. The final rule makes clear that authorized states, tribes, and territories can elect to use EPA’s national NPDES data system (ICIS-NPDES). The final rule makes clear that data transfers from authorized NPDES programs to EPA must be timely and complete and that failure to do so will require EPA to be the initial recipient as defined in Part 127. The final rule also makes clear that the authorized NPDES program’s compliance monitoring program must be conducted in a manner designed to protect surface waters and public health.