



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 7 2000

MEMORANDUM

SUBJECT: PCS Data Clean-Up Proposal

FROM: Diane Regas, Deputy Assistant Administrator,
Office of Water

Sylvia K. Lowrance, Principle Deputy Assistant Administrator,
Office of Enforcement and Compliance Assurance

TO: Regional Administrators (Regions 1-10)

The Office of Water (OW) and the Office of Enforcement and Compliance Assurance (OECA) are proposing an effort to enter and QA/QC data in the Permit Compliance System (PCS). This data is used to manage the National Pollutant Discharge Elimination System (NPDES) program and to measure how the program is being implemented and achieving environmental goals. Poor data undermines EPA's ability to report permit backlog levels, success in meeting Government Performance Results Act (GPRA) commitments, and implementation of the TMDL program. OW and OECA plan to work with Regions and States to populate PCS with the data necessary to accurately represent the NPDES program.

The attached proposal identifies the basic program data necessary to meet this objective and outlines a strategy to enter it into PCS. While the majority of this data is already required, OW and OECA recognize that this project will require additional resources. We are prepared to work with States and Regions to facilitate this project and are considering ways to provide resources to ensure its successful completion over the next six months.

The need for quality program data has never been greater. Poor or missing data in PCS prevents citizens from accessing information about their environment and presents an incomplete picture of the state of water quality and our efforts to improve it. Technological advances will improve our ability to report on our environment in the near future, but none of those advances will be useful without a complete and accurate set of core program data now.

Your comments on the proposed data clean-up strategy are welcome. Please contact Fred Stiehl, Director, Enforcement Planning, Targeting, and Data Division, at 202-564-2290 or Chuck

Sutfin, Director, Water Permits Division, at 202-260-9545 or have your staff send comments to Kelly Volak, Water Permits Division, at 202-260-0307.

Attachments

EPA PLAN FOR PCS DATA MANAGEMENT
Office of Water (OW) and
Office of Enforcement and Compliance Assurance (OECA)

Problem Statement

The Permit Compliance System (PCS) is the main repository of NPDES program data; yet its data quality and completeness are often poor. Many **required** fields (such as permit issuance and expiration date, facility location address, lat/long, inspections, and enforcement actions) are not populated accurately or consistently, undermining the usefulness of PCS as a tool for tracking permit backlog, Government Performance and Results Act (GPRA) commitments, public access, and the total maximum daily load (TMDL) program. On February 22, 1999, a joint memo on Improving Data in PCS was issued by the Office of Wastewater Management and the Office of Compliance. (See <http://intranet.epa.gov/oecagrph/oc/epidd/teb/otis/dataimprov.html>) This memo addressed a number of these same problems, and while some improvements to the data have been made, overall entry and data quality for the data elements referenced in the memo have not significantly improved.

Number and Percent of Facilities in PCS with Data Missing for Certain Fields:

	Location (RST1, RCTY, RZIP)		Facility Lat/Long (FLAT/FLOH)		Facility HUC (FHBC)		Design Flow (FLOW)	
Major	1922	26%	301	5%	255	4%	1702	26%
Minor	24223	43%	22388	42%	18899	36%	27798	53%

Additionally, 11% of minor facilities in PCS have no permit issuance or expiration dates. The result of the missing dates is that we cannot accurately calculate the size of the NPDES universe or the permit reissuance backlog count. (from 7/00 PCS extract) Assessing and eliminating the permit backlog has been an OW priority for the past two years.

Basic Inspection and Enforcement Action Data Appears to Be Missing

Analysis of the FY 1999 data indicates that PCS may not reflect the true number of inspections conducted and enforcement actions taken in many of the Regions and States. The essential inspection and enforcement data elements are already required and most States and Regions are doing a good job getting the information into the system. However, there are several areas where problems seem to exist. In 14 States, the inspections performed are less than one-half the national average of 29%. Similarly, entry of enforcement actions (EPA and State civil/judicial and administrative actions) appears to be problematic in several States. On average, 2.6 of every 100 standard permits have received an EPA or State enforcement action over a two-year period. In 15 States, the number of Regional and State enforcement actions is less than one-third of this national average.

These statistics suggest that there may be data quality/data entry problems in 14 or 15 States which give the appearance that compliance monitoring or enforcement activities are not occurring, when in

fact they probably are. This is particularly troubling given that PCS is the primary source for facility-level statistical data about the EPA/State compliance and enforcement programs. From a public access perspective, this is also disconcerting when PCS shows significant violations and the resulting enforcement actions are missing.

Poor Data Quality Prevents Accurate Responses to Basic Questions

OW and OECA are frequently asked by Congress, environmental groups, industry groups, and the public to provide data regarding the nature of facilities regulated by individual NPDES permits. As Freedom of Information Act requests increase and Internet technology brings PCS data to a broader spectrum of public users, it is imperative that PCS accurately reflect a facility's permitting and compliance record. From a management perspective, we are currently faced with technical issues that require us to predict or model loadings to water bodies (e.g., TMDL development, GPRA loading estimates, effluent guidelines (ELG) cost/benefit assessments). Many of these questions could be answered if core data elements were complete for all major and minor facilities. As noted above, however, these data are not complete and the reliability is unmeasured. Examples of critical questions that cannot be accurately answered include:

- How many facilities are covered by NPDES permits in each State and Territory?
- What is the correct street address of a particular permitted facility?
- How many permits are current or expired?
- Who discharges to a specific waterbody (e.g., where a TMDL is being developed)?
- Which dischargers have the potential to discharge certain types of pollutants?
- Where are certain types of dischargers (e.g., concentrated animal feeding operations (CAFOs)) located?
- Which facilities have been inspected and which have not?
- Which facilities have had enforcement actions and which have not?

Poor Legacy Data Will Impact the Modernization Process

PCS is currently undergoing a modernization process which will require the migration of required data elements into the new system, either from legacy PCS or directly from State databases. The data currently in PCS, specifically for minor facilities, is too incomplete to facilitate program implementation, even if it was housed in a modern, user-friendly system. Nor can we rely solely on the migration of data from State databases to solve this problem since we do not have a complete picture of the quality or quantity of State data or the technological level of their systems.

Actions

To enable the NPDES permitting and enforcement programs to use PCS data in the implementation of their work, better prepare legacy PCS for the eventual migration of its data into modernized PCS, ensure the continued maintenance of PCS data, provide the public with accurate information about the status of permitted facilities in their communities, and begin preparations for the eventual inclusion of facilities covered under non-storm water general permits, we will need to adopt a multi-pronged approach.

A. Data Clean-Up

To answer basic questions regarding the status of national permitting and compliance efforts, the Agency must be able to draw on certain "essential" data elements for all permitted facilities.

"Essential" data elements can be defined as those without which we cannot meaningfully describe, characterize, or manage our program. If we take the questions noted above as those that allow us to meaningfully characterize our program, then we can identify a fairly short list of data elements that will allow us to provide answers; at least for facilities covered by individual permits. Specifically, having complete and accurate data elements that provide basic facility and outfall data (e.g., identification, location, discharge type) would allow us to answer basic programmatic questions and provide a solid foundation upon which future modernization efforts can be built. Therefore, for the short-term (next 6 months) data clean-up effort, we are proposing to address the "essential" data elements listed below.

We believe that the questions noted above can be answered in a meaningful way if the following data fields in PCS are fully populated for all **individually permitted dischargers**, major and minor:

Requested PCS Data Fields for Individually Permitted Dischargers	Current WENDB Requirement	
	For both Majors and Minors	For Majors Only
1) facility name	X	
2) facility location -- address	X	
3) outfall (pipe) level locational data- HUC -- Hydrologic Unit Code Reach segment Latitude Measure and Longitude Measure Horizontal Accuracy Measure Horizontal Reference Datum Horizontal Collection Method Source Map Scale Number, for non-GPS methods		 X X X X X
3.5) facility location -- for non-discharging facilities Latitude Measure and Longitude Measure Horizontal Accuracy Measure Horizontal Reference Datum Horizontal Collection Method Source Map Scale Number, for non-GPS methods (please see Attachment 1 for a discussion of locational data elements and the Latitude/Longitude Data Standard)	 X X X X X	
4) permit issuance date	X	
5) permit expiration date	X	
6) permit effective date (New WENDB data element, June 2000 PCS Steering Committee vote)	X	

7) permit application received date	X	
8) SIC (will eventually become NAICS)	X	
9) EPA-issued/State-issued permit/Tribe-issued	X	
10) flow (required as design flow or average process flow)	X	
11) are permit limits based on a wasteload allocation (WLA) as part of an approved TMDL –yes or no? (not a current field)		
12) inspection	X	
13) enforcement action		X
14) penalties (Administrative Penalty Orders required for EPA entry only. Proposing that Regions increase data entry of APOs into PCS)		X
15) major/minor permit rating sheet score (New WENDB data element, June 2000 PCS Steering Committee vote)	X	

OW and OECA are currently developing guidance for PCS data specialists to address the input of the above-listed fields and a Permit Writer's Summary Sheet listing essential permit elements in an accessible format. We plan to distribute those documents in approximately one month.

Most of these data elements are already required WENDB fields. Those above-listed elements which are not currently WENDB also represent significant Agency needs.

At this time, we are only requiring those fields for facilities covered under individual permits. However, our inability to track or even count the estimated 50,000 facilities covered under non-storm water general permits is a significant program weakness and we will eventually request this data for those facilities, also. At present, we encourage States and Regions who are currently using PCS to track facilities covered under general permits to follow the recommended guidance (which we will clarify and reissue) for PCS data input to improve national consistency. We will explore future methods to obtain facility and discharge data on other types of point sources, including storm water and CAFOs. Some of these methods may involve electronic application and reporting to facilitate automatic population of PCS fields.

OW and OECA Propose to Take this Approach to Clean-up PCS Data:

- Print a report from PCS for each State listing every active permit and the above-mentioned data for that facility, flagging the permits and facilities that are missing those data pieces or contain facility latitude/longitude data that is obviously wrong (these files were already created when a comparison of lat/long data was made to State and county level-data). To prevent duplication of effort, we will also send reports from other EPA databases that may contain this information (e.g., TMDL assessment database developed by Agency contractors) for each State.
- Send the report to each Region (who will send to their respective States). The States would print the same report from their own system, if possible, or "fill in the blanks", where

- appropriate. The State would send the report back to EPA.
- An EPA contractor, either through OW or OECA, would key the corrected or missing data into PCS.
- If certain States are unable to provide the necessary data, resources might be reserved for contractor visits to the States to obtain this data.

As an alternative, grant dollars might be given directly to States that agree to this undertaking. Preliminary cost estimates for this clean-up exercise are approximately \$500K, representing, where necessary, contractor data entry and State and Regional site visits to assist with data clean-up.

B. Short-term Guidance and Policy Changes

Policy changes and minor system changes may be required to clarify needs and requirements:

- Include outfall lat/long data as WENDB required elements for minors.
- If possible, add or modify a current PCS field designating TMDL implementation.
- Provide guidance and training to permit writers re-emphasizing the importance of including the above-mentioned facility-level and outfall-level data in NPDES permits.
- Provide clear guidance on which individual permit elements are essential and how they should be entered into PCS. This guidance should address the need to enter the 15 fields mentioned above.
- Encourage States and Regions to use existing structure within PCS to capture critical elements for facilities covered under general permits and issue guidance on this preferred method for entering this data.
- Examine the issue of enforcement action reporting to better define PCS codes, and determine a nationally-consistent way for associated penalty information to be entered by Regions and States.

C. Accountability and Maintenance

Processes must be instituted to ensure that PCS data is maintained completely and accurately. While facilities do not typically change location, their active/inactive status does change (they may close, apply for coverage under a general permit, or connect to a POTW), and we will devise a feedback loop that provides the States and Regions with a window into data used by HQ so that significant gaps can be addressed immediately.

PCS Enhancements

OECA is investigating the possibility of making a minor enhancement to PCS to ensure that issuance and expiration dates are updated regularly. Currently, new pipe and limit data can be entered when a permit is reissued without an update to the permit issuance and expiration date fields. As a result, permits are reissued, but issuance and expiration dates in PCS do not reflect this. PCS edit software may be enhanced to only allow pipe and limit data updates when the permit issuance and expiration dates have also been updated.

Promote Agency-wide Coordination

EPA is currently working to integrate data by location across program systems, promoting the use of

EPA's data resources for a wide array of cross-media analyses, such as community-based ecosystem management and environmental justice. The Locational Data Improvement Project (LDIP) is an Agency-wide effort to identify, collect, verify, store, and maintain an accurate, consistently documented set of locational data for entities of environmental concern. A secondary objective is to support the infrastructure needed to manage these data in a manner that yields integration across national, regional, tribal, and state systems. The LDIP works with States and Regions to obtain and store latitude/longitude coordinate information of documented origin for all of EPA's regulated facilities and sites, operable units, and environmental monitoring and observation locations. Please see **Attachment 2** for a list of Regional GIS coordinators.

Website

OECA is considering the future development of a PCS data website which would display, by permit and in aggregate, the basic facility information (name, issuance and expiration dates, lat/long) contained within PCS, allowing States and Regions and, eventually, permittees to view the data that EPA includes in its public reports. This site could potentially provide an impetus for filling in missing data and correcting incorrect data.

Conclusions

There are no technical impediments to collecting and populating the core data elements for all existing NPDES individual permit holders. The data elements that have been identified for "clean up" have always been, and will remain, necessary to accurately characterize all point source dischargers.

Correcting and backfilling these critical data elements will allow us to provide more realistic and meaningful answers to questions from Congress, environmental groups, industry groups, and the public, in the short term, and will facilitate and improve data transfer to the modernized PCS system in the long term.

Over the next 6 months, OW and OECA commit to:

- Provide clear guidance to PCS data specialists on which individual permit elements are essential and how they should be entered into PCS. This guidance should also offer options for obtaining certain data elements, especially locational elements.
- Develop a Permit Writer's Summary Sheet listing essential permit elements in an accessible format.
- Secure resources to assist with the data clean-up and data entry effort.
- Issue guidance outlining the requirements for tracking individual facilities covered under non-storm water general permits within PCS. Work with States and Regions to migrate this facility-level data into PCS when it already exists in State systems.

ATTACHMENT 1

Agency Latitude/Longitude Data Standard

The Reinventing Environmental Information (REI) Program, in concert with ECOS, has identified the implementation of a data standard for recording spatial coordinates (i.e., lat and long) and associated information about the coordinates as a major Agency goal. The Agency Latitude/Longitude Data Standard is scheduled to be adopted by EPA under the REI Program. The draft data standard will be reviewed by the EPA Geographic Information System (GIS) work group for use in updating the *Method Accuracy Description (MAD) Information Coding Standards* from v 6.1 to v 6.2. (This document forms EPA's Locational Data Policy)

The standard requires programs that store geographic coordinates to document the method, accuracy, and description by which the coordinates were established to provide credibility for the coordinates and to allow an assessment of their accuracy. Additionally, these standard elements will be used by the Envirofacts Locational Reference Tables (LRT) as well as Agency information systems designed to map EPA programs and their relationship to improved environmental quality. For additional information on the EPA Lat/Long Data Standard, please review the attached .pdf file or see <http://www.epa.gov/edr>

Accurate spatial coordinates will allow OW and OECA to correctly attribute individual NPDES dischargers to receiving waterbodies, especially those that are impaired. This will be necessary to determine TMDL implementation levels, to prioritize permit issuance, and to provide Congress and the public with up-to-date information on waterbody health. While we recognize that this information is not always readily available, we want to take advantage of instances where it does exist and ensure that national-level and State-level data are consistent. Many States have moved forward with aggressive GIS programs to obtain this information and a network of GIS coordinators exists at the State and Regional level, creating opportunities for coordination and data sharing. See **Attachment 2** for the list of GIS Regional coordinators.

ATTACHMENT 2

List of Regional GIS Coordinators

Region 1 - Mike Macdougall

Region 2 - George Nossa, Harvey Simon

Region 3 - Wendy Bartel, Don Evans

Region 4 - Rebecca Kemp, Henry Strickland, Gary S. Davis, Lisa Gordon (part-time)

Region 5 - Stephen Goranson, Noel Kohl, Barry Bolka

Region 6 - David Parrish

Region 7 - Vickie Damm

Region 8 - Karl Hermann, Tony Selle

Region 9 - Warren Beer, Cheryl Henley

Region 10 - Ray Peterson, Dan Matheney

There is a web site at <<http://internet.epa.gov/gis/twg/personne.htm>>.

State Breakdown of the Number and Percentage of NPDES Standard Permits with Missing Data in PCS (as of July 2000)

State	# of NPDES Ids		Facility Name		Location - Street		Location - City		Location - Zip		Lat/Long		SIC Code	
	NPID	Minors	NAM1		RST1		RCTY		RZIP		FLAT/FLON		SIG2	
			#	%	#	%	#	%	#	%	#	%	#	%
AK	46	280	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
AL	208	1390	0	0%	4	0%	2	1%	14	1%	178	64%	0	0%
AR	109	729	0	0%	0	0%	1	1%	14	2%	476	34%	0	0%
AS	4	3	0	0%	0	0%	1	25%	0	0%	0	0%	0	0%
AZ	43	144	0	0%	0	0%	0	0%	0	0%	4	100%	0	0%
CA	245	684	0	0%	0	0%	9	4%	31	5%	5	12%	0	0%
CO	102	421	0	0%	0	0%	13	13%	91	22%	38	16%	0	0%
CT	116	128	0	0%	3	2%	33	28%	104	81%	10	10%	0	0%
DC	4	12	0	0%	0	0%	2	50%	9	75%	14	12%	2	2%
DE	24	41	0	0%	0	0%	2	8%	7	17%	0	0%	0	0%
FL	237	350	0	0%	0	0%	3	1%	16	5%	1	4%	1	2%
GA	169	783	0	0%	0	0%	164	97%	778	99%	0	0%	0	0%
GU	8	11	0	0%	0	0%	0	0%	0	0%	12	3%	0	0%
HI	24	39	0	0%	0	0%	0	0%	0	0%	437	56%	0	0%
IA	123	1658	0	0%	0	0%	0	0%	0	0%	10	91%	0	0%
ID	44	278	0	0%	0	0%	1	2%	54	19%	8	100%	0	0%
IL	268	1787	0	0%	0	0%	12	4%	160	9%	1	4%	0	0%
IN	174	1180	0	0%	0	0%	1	1%	39	3%	0	0%	0	0%
KS	58	1161	0	0%	6	1%	46	79%	775	67%	4	7%	0	0%
KY	127	1861	0	0%	0	0%	0	0%	13	1%	1157	100%	0	0%
LA	245	3635	0	0%	9	0%	44	18%	1758	48%	19	1%	0	0%
MA	146	522	0	0%	2	0%	0	0%	149	29%	126	45%	0	0%
MD	99	565	0	0%	0	0%	15	15%	68	12%	0	0%	0	0%
ME	94	257	0	0%	2	1%	1	1%	69	27%	11	11%	0	0%
MI	181	543	0	0%	0	0%	0	0%	31	6%	8	9%	2	2%
MN	85	1019	0	0%	0	0%	0	0%	87	9%	1	1%	0	0%
MO	147	2999	0	0%	0	0%	1	1%	287	10%	2	2%	0	0%
MS	86	1835	0	0%	1	0%	2	2%	1189	65%	3	3%	0	0%
MT	44	147	0	0%	0	0%	16	36%	77	52%	10	12%	0	0%
NC	216	1343	0	0%	0	0%	67	31%	267	20%	2	5%	0	0%
ND	26	127	0	0%	0	0%	25	96%	109	86%	0	0%	0	0%
NE	59	1180	0	0%	1	0%	3	5%	583	49%	0	0%	0	0%
NH	61	186	0	0%	3	2%	0	0%	89	48%	2	3%	0	0%
NI	2	3	0	0%	0	0%	2	100%	3	100%	2	100%	0	0%
NJ	165	2678	0	0%	0	0%	0	0%	2	0%	1	33%	0	0%
NM	34	251	0	0%	4	2%	7	21%	213	85%	0	0%	0	0%
NV	10	70	0	0%	0	0%	1	10%	7	10%	0	0%	0	0%

State Breakdown of the Number and Percentage of NPDES Standard Permits with Missing Data in PCS (as of July 2000)

State	# of NPDES Ids		Facility Name		Location - Street		Location - City		Location - Zip		Lat/Long		SIC Code	
	NPID		NAM1		RST1		RCTY		RZIP		FLAT/LON		SIC2	
	Majors	Minors	Majors	Minors	Majors	Minors	Majors	Minors	Majors	Minors	Majors	Minors	Majors	Minors
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
NY	359	1758	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
OH	287	2565	0	0%	134	47%	1606	63%	134	47%	1609	63%	0	0%
OK	91	629	0	0%	31	34%	229	36%	86	95%	541	86%	0	0%
OR	73	775	0	0%	6	8%	261	34%	5	7%	255	33%	13	18%
PA	387	3947	0	0%	321	83%	3826	97%	324	84%	3825	97%	3	1%
PR	94	189	0	0%	0	0%	4	2%	0	0%	4	2%	1	1%
RI	25	108	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
SC	187	506	0	0%	1	1%	0	0%	186	99%	503	99%	66	35%
SD	30	380	0	0%	0	0%	27	7%	0	0%	29	8%	0	0%
TN	156	1321	0	0%	132	85%	1058	80%	40	26%	490	37%	129	83%
TX	558	2661	0	0%	127	23%	866	33%	131	23%	1335	50%	248	44%
UT	33	83	0	0%	0	0%	2	2%	0	0%	1	1%	0	0%
VA	141	2835	0	0%	130	92%	2489	88%	131	93%	2491	88%	22	16%
VI	6	77	0	0%	0	0%	8	10%	0	0%	6	8%	0	0%
VT	34	108	0	0%	33	97%	107	99%	33	97%	107	99%	0	0%
WA	86	644	0	0%	0	0%	224	35%	0	0%	216	34%	5	6%
WI	133	860	0	0%	1	1%	181	21%	1	1%	123	14%	3	2%
WV	93	1462	0	0%	84	90%	1445	99%	64	69%	1370	94%	0	0%
WY	26	1137	0	0%	17	65%	199	18%	26	100%	1075	95%	0	0%
Nation	5652	52345	0	0%	1491	22%	19836	38%	1617	24%	21927	42%	2042	31%
													309	5%
													22035	42%
													11	0%
													3533	7%

State Breakdown of the Number and Percentage of NPDES Standard Permits with Missing Data in PCS (as of July 2000)

State	# of NPDES Ids		Issued Date				Expired Date				EPA/State Permit				HUC Code				Reach Segment				Design Flow			
	NPID		PIAC where PREY=PA000				PIAC where PREY=PS008								FHBC				FSEG							
			Majors		Minors		Majors		Minors		Majors		Minors		Majors		Minors		Majors		Minors		Majors		Minors	
	Majors	Minors	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
AK	46	280	0	0%	130	46%	0	0%	130	46%	0	0%	26	9%	193	69%	46	100%	280	100%	25	54%	273	98%		
AL	208	1390	0	0%	5	0%	0	0%	5	0%	0	0%	6	0%	634	46%	72	35%	1198	86%	22	11%	778	56%		
AR	109	729	0	0%	28	4%	0	0%	28	4%	0	0%	28	4%	13	2%	73	67%	591	81%	0	0%	48	7%		
AS	4	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	3	100%	4	100%	3	100%	0	0%	2	67%		
AZ	43	144	0	0%	18	13%	0	0%	18	13%	0	0%	5	3%	45	31%	16	37%	118	82%	8	19%	47	33%		
CA	245	684	1	0%	19	3%	1	0%	19	3%	1	0%	1	0%	337	49%	56	23%	435	64%	6	2%	33	5%		
CO	102	421	0	0%	80	19%	0	0%	79	19%	0	0%	3	1%	184	44%	23	23%	282	67%	35	34%	298	71%		
CT	116	128	0	0%	8	6%	0	0%	11	9%	10	9%	42	33%	57	45%	11	9%	74	58%	51	44%	124	97%		
DC	4	12	0	0%	0	0%	0	0%	0	0%	0	0%	1	8%	5	42%	4	100%	12	100%	4	100%	8	67%		
DE	24	41	1	4%	0	0%	0	0%	0	0%	0	0%	7	17%	6	15%	24	100%	41	100%	16	67%	34	83%		
FL	237	350	0	0%	32	9%	0	0%	32	9%	0	0%	0	0%	127	36%	40	17%	219	63%	80	34%	120	34%		
GA	169	783	0	0%	0	0%	0	0%	0	0%	26	15%	202	26%	155	20%	26	15%	272	35%	47	28%	358	46%		
GU	8	11	0	0%	2	18%	0	0%	2	18%	0	0%	0	0%	11	100%	8	100%	11	100%	0	0%	2	18%		
HI	24	39	0	0%	1	3%	0	0%	1	3%	0	0%	1	3%	28	72%	24	100%	39	100%	2	8%	28	72%		
IA	123	1658	0	0%	89	5%	0	0%	88	5%	0	0%	66	4%	103	6%	123	100%	1658	100%	11	9%	693	42%		
ID	44	278	0	0%	98	35%	0	0%	98	35%	0	0%	27	10%	25	9%	44	100%	278	100%	16	36%	263	95%		
IL	268	1787	0	0%	1	0%	1	0%	1	0%	0	0%	0	0%	11	1%	268	100%	1787	100%	0	0%	457	26%		
IN	174	1180	0	0%	180	16%	0	0%	34	3%	0	0%	6	1%	7	1%	162	93%	767	65%	38	22%	114	10%		
KS	58	1161	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	544	47%	6	10%	586	50%	5	9%	415	36%		
KY	127	1861	0	0%	35	2%	0	0%	35	2%	0	0%	35	2%	322	17%	33	26%	1518	82%	10	8%	555	30%		
LA	245	3635	2	1%	2344	64%	2	1%	2344	64%	20	8%	2039	56%	4	2%	1645	45%	121	49%	3298	91%	143	58%	3288	90%
MA	146	522	0	0%	242	46%	0	0%	243	47%	1	1%	229	44%	1	1%	170	33%	22	15%	435	83%	46	32%	450	86%
MID	99	555	0	0%	1	0%	0	0%	1	0%	0	0%	18	3%	110	19%	99	100%	565	100%	14	14%	152	27%		
ME	94	257	0	0%	58	23%	0	0%	58	23%	2	2%	65	25%	3	3%	61	24%	15	16%	148	58%	21	22%	122	47%
MI	181	543	0	0%	1	0%	1	0%	1	0%	1	1%	35	6%	0	0%	10	2%	170	94%	515	95%	5	3%	34	6%
MN	85	1019	0	0%	65	6%	0	0%	65	6%	0	0%	231	23%	0	0%	142	14%	85	100%	1019	100%	1	1%	199	20%
MO	147	2999	1	1%	412	14%	1	1%	412	14%	0	0%	18	1%	5	3%	1504	50%	50	34%	2136	71%	1	1%	172	6%
MS	88	1835	0	0%	109	6%	0	0%	109	6%	3	3%	114	6%	1	1%	284	15%	18	21%	1401	76%	0	0%	271	15%
MT	44	147	0	0%	1	1%	0	0%	0	0%	0	0%	3	2%	2	5%	63	43%	4	9%	94	64%	18	41%	77	52%
NC	216	1343	0	0%	3	0%	0	0%	3	0%	0	0%	7	1%	0	0%	133	10%	25	12%	1026	76%	1	0%	13	1%
ND	26	127	0	0%	11	9%	0	0%	11	9%	0	0%	0	0%	63	50%	3	12%	89	70%	10	38%	113	89%		
NE	59	1180	0	0%	327	28%	0	0%	327	28%	1	2%	441	37%	0	0%	311	26%	59	100%	1180	100%	0	0%	709	60%
NH	61	186	0	0%	95	51%	0	0%	95	51%	2	3%	97	52%	0	0%	71	38%	10	16%	139	75%	17	28%	145	78%
NI	2	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	100%	3	100%	2	100%	3	100%	0	0%	1	33%
NJ	165	2678	0	0%	5	0%	0	0%	5	0%	0	0%	5	0%	0	0%	2041	76%	165	100%	2678	100%	164	99%	2678	100%
NM	34	251	0	0%	117	47%	0	0%	117	47%	1	3%	82	33%	1	3%	173	68%	5	15%	202	80%	7	21%	223	89%
NV	10	70	0	0%	0	0%	0	0%	0	0%	0	0%	5	7%	0	0%	37	53%	2	20%	56	80%	1	10%	38	54%

State Breakdown of the Number and Percentage of NPDES Standard Permits with Missing Data in PCS (as of July 2000)

	# of NPDES Ids		Issued Date				Expired Date				EPA/State Permit				HUC Code				Reach Segment				Design Flow			
	NPID		PTAC where PTREV=PT099				PTAC where PTREV=PS098				EPST				FHBC				FSEEG				FLOW			
	Majors	Minors	#	%	#	%	Majors	Minors	#	%	#	%	#	%	Majors	Minors	#	%	Majors	Minors	#	%	Majors	Minors	#	%
State																										
NV	359	1758	0	0%	15	1%	0	0%	13	1%	0	0%	21	1%	0	0%	32	2%	359	100%	1758	100%	1	0%	740	42%
OH	287	2565	0	0%	23	1%	0	0%	24	1%	15	5%	1109	43%	12	4%	1374	54%	287	100%	2565	100%	131	46%	2561	100%
OK	91	629	0	0%	92	15%	0	0%	92	15%	9	10%	164	26%	3	3%	262	42%	16	18%	367	58%	30	33%	361	57%
OR	73	775	0	0%	6	1%	0	0%	7	1%	0	0%	0	0%	1	1%	158	20%	73	100%	775	100%	23	32%	767	99%
PA	387	3947	0	0%	19	0%	0	0%	15	0%	4	1%	257	7%	6	2%	1966	50%	387	100%	3947	100%	94	24%	999	25%
PR	94	189	1	1%	39	21%	1	1%	39	21%	0	0%	22	12%	1	1%	46	24%	94	100%	189	100%	6	6%	34	18%
RI	25	108	0	0%	2	2%	0	0%	1	1%	0	0%	46	43%	0	0%	22	20%	3	12%	83	77%	24	96%	108	100%
SC	187	506	1	1%	10	2%	1	1%	10	2%	0	0%	0	0%	31	17%	183	36%	55	29%	310	61%	112	60%	440	87%
SD	30	380	0	0%	9	2%	0	0%	9	2%	0	0%	1	0%	0	0%	20	5%	13	43%	335	88%	7	23%	130	34%
TN	156	1321	1	1%	46	3%	1	1%	46	3%	2	1%	28	2%	5	3%	294	22%	38	24%	1051	80%	37	24%	1073	81%
TX	558	2661	3	1%	410	15%	3	1%	409	15%	5	1%	178	7%	26	5%	1395	52%	115	21%	1794	67%	201	36%	1871	70%
UT	33	83	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	32	39%	6	18%	56	67%	8	24%	57	69%
VA	141	2835	0	0%	96	3%	0	0%	99	3%	7	5%	196	7%	24	17%	1951	69%	141	100%	2835	100%	29	21%	1890	67%
VI	6	77	0	0%	12	16%	0	0%	12	16%	0	0%	4	5%	0	0%	77	100%	6	100%	77	100%	0	0%	34	44%
VT	34	108	0	0%	1	1%	0	0%	1	1%	3	9%	28	26%	0	0%	56	52%	2	6%	57	53%	33	97%	107	99%
WA	86	644	0	0%	97	15%	0	0%	97	15%	0	0%	58	9%	0	0%	114	18%	86	100%	644	100%	37	43%	467	73%
WI	133	860	1	1%	72	8%	1	1%	27	3%	1	1%	116	13%	1	1%	207	24%	133	100%	860	100%	49	37%	442	51%
WV	93	1462	0	0%	92	6%	0	0%	86	6%	0	0%	58	4%	0	0%	447	31%	93	100%	1462	100%	33	35%	986	67%
WY	26	1137	0	0%	73	6%	0	0%	59	5%	0	0%	26	2%	0	0%	821	72%	1	4%	1024	90%	14	54%	1097	96%
Nation	6532	52345	12	0%	5632	11%	11	0%	5419	10%	14	2%	6173	12%	270	4%	13088	36%	3826	58%	45342	81%	1694	26%	27499	53%

State Breakdown of the Number and Percentage of NPDES Standard Permit Outfalls with Missing Data in PCS (as of July 2000)

State	# of Pipes		Latitude/Longitude				Accuracy				Method			
			PLAT/PLON				PLLC				PLLM			
	Majors	Minors	#	%	#	%	Majors	%	#	%	Majors	%	#	%
AK	96	287	52	54.2%	284	99.0%	62	64.6%	287	100.0%	52	54.2%	284	99.0%
AL	954	2317	342	35.8%	1917	82.7%	380	39.8%	1946	84.0%	641	67.2%	2248	97.0%
AR	312	870	12	3.8%	32	3.7%	214	68.6%	729	83.8%	131	42.0%	263	30.2%
AS	4	3	4	100.0%	3	100.0%	4	100.0%	3	100.0%	4	100.0%	-1	-33.3%
AZ	219	149	136	62.1%	79	53.0%	208	95.0%	86	57.7%	155	70.8%	79	53.0%
CA	602	698	299	49.7%	692	99.1%	440	73.1%	693	99.3%	318	52.8%	692	99.1%
CO	277	1007	169	61.0%	985	97.8%	169	61.0%	986	97.9%	169	61.0%	986	97.9%
CT	248	141	74	29.8%	134	95.0%	74	29.8%	134	95.0%	74	29.8%	134	95.0%
DC	19	40	5	26.3%	39	97.5%	5	26.3%	39	97.5%	5	26.3%	39	97.5%
DE	72	66	30	41.7%	61	92.4%	31	43.1%	61	92.4%	30	41.7%	61	92.4%
FL	694	558	625	90.1%	553	99.1%	655	94.4%	557	99.8%	626	90.2%	553	99.1%
GA	265	930	173	65.3%	774	83.2%	262	98.9%	930	100.0%	261	98.5%	930	100.0%
GU	8	11	8	100.0%	11	100.0%	8	100.0%	11	100.0%	8	100.0%	3	27.3%
HI	58	55	21	36.2%	22	40.0%	52	89.7%	55	100.0%	24	41.4%	22	40.0%
IA	628	2371	291	46.3%	1185	50.0%	291	46.3%	1185	50.0%	628	100.0%	1743	73.5%
ID	78	302	31	39.7%	286	94.7%	37	47.4%	296	98.0%	31	39.7%	286	94.7%
IL	1318	4155	236	17.9%	1780	42.8%	238	18.1%	1815	43.7%	1318	100.0%	2837	68.3%
IN	1248	1674	728	58.3%	803	48.0%	742	59.5%	905	54.1%	941	75.4%	932	55.7%
JA	0	1	0	0.0%	1	100.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
KS	108	1250	41	38.0%	1242	99.4%	41	38.0%	1242	99.4%	41	38.0%	1242	99.4%
KY	426	2777	17	4.0%	261	9.4%	61	14.3%	490	17.6%	207	48.6%	2190	78.9%
LA	1175	4018	672	57.2%	3993	99.4%	676	57.5%	3994	99.4%	684	58.2%	3997	99.5%
MA	331	731	122	36.9%	604	82.6%	142	42.9%	725	99.2%	127	38.4%	648	88.6%
MD	275	1049	95	34.5%	1000	95.3%	100	36.4%	1013	96.6%	96	34.9%	1005	95.8%
ME	181	428	139	76.8%	423	98.8%	154	85.1%	428	100.0%	142	78.5%	424	99.1%
MI	487	740	225	46.2%	694	93.8%	228	46.8%	696	94.1%	487	100.0%	253	34.2%
MN	322	1435	159	49.4%	1268	88.4%	208	64.6%	1403	97.8%	322	100.0%	1113	77.6%
MO	491	3939	245	49.9%	2636	66.9%	245	49.9%	2636	66.9%	246	50.1%	2657	67.5%
MS	147	2173	92	62.6%	2171	99.9%	92	62.6%	2171	99.9%	92	62.6%	2171	99.9%
MT	117	250	66	56.4%	235	94.0%	71	60.7%	245	98.0%	71	60.7%	246	98.4%
MW	0	1	0	0.0%	1	100.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
NC	309	1376	53	17.2%	1372	99.7%	53	17.2%	1372	99.7%	53	17.2%	1372	99.7%
ND	88	195	41	46.6%	195	100.0%	41	46.6%	195	100.0%	42	47.7%	195	100.0%
NE	161	1785	117	72.7%	1780	99.7%	117	72.7%	1780	99.7%	161	100.0%	1624	91.0%
NH	142	203	76	53.5%	201	99.0%	78	54.9%	201	99.0%	76	53.5%	201	99.0%
NI	2	3	2	100.0%	3	100.0%	2	100.0%	3	100.0%	2	100.0%	1	33.3%
NJ	290	3188	64	22.1%	2235	70.1%	64	22.1%	2238	70.2%	65	22.4%	2239	70.2%
NM	167	304	133	79.6%	298	98.0%	133	79.6%	304	100.0%	133	79.6%	304	100.0%

State Breakdown of the Number and Percentage of NPDES Standard Permit Outfalls with Missing Data in PCS (as of July 2000)

	# of Pipes	Latitude/Longitude						Accuracy				Method			
		PLAT/PLON						PLLC				PLLM			
		Majors		Minors		Majors		Minors		Majors		Minors			
State	Majors	Minors	#	%	#	%	#	%	#	%	#	%	#	%	
NV	16	70	3	18.8%	70	100.0%	14	87.5%	70	100.0%	6	37.5%	70	100.0%	
NY	1274	2891	646	50.7%	1630	56.4%	699	54.9%	1745	60.4%	681	53.5%	1737	60.1%	
OH	2416	7609	1713	70.9%	6992	91.9%	1729	71.6%	7040	92.5%	2416	100.0%	5193	68.2%	
OK	464	783	321	69.2%	263	33.6%	321	69.2%	266	34.0%	352	75.9%	536	68.5%	
OR	143	279	94	65.7%	274	98.2%	99	69.2%	278	99.6%	94	65.7%	274	98.2%	
PA	1177	4125	220	18.7%	3907	94.7%	238	20.2%	3909	94.8%	220	18.7%	3907	94.7%	
PR	147	205	75	51.0%	160	78.0%	83	56.5%	162	79.0%	75	51.0%	160	78.0%	
RI	58	177	14	24.1%	165	93.2%	18	31.0%	168	94.9%	14	24.1%	165	93.2%	
SC	382	636	60	15.7%	125	19.7%	227	59.4%	630	99.1%	154	40.3%	366	57.5%	
SD	69	448	26	37.7%	360	80.4%	30	43.5%	384	85.7%	30	43.5%	374	83.5%	
TN	1275	2100	1071	84.0%	2087	99.4%	1071	84.0%	2087	99.4%	1071	84.0%	2087	99.4%	
TX	2361	3600	1706	72.3%	3505	97.4%	1706	72.3%	3509	97.5%	1721	72.9%	3530	98.1%	
UT	64	179	26	40.6%	173	96.6%	26	40.6%	174	97.2%	26	40.6%	174	97.2%	
VA	567	3083	549	96.8%	3059	99.2%	549	96.8%	3061	99.3%	549	96.8%	3059	99.2%	
VI	21	81	7	33.3%	67	82.7%	7	33.3%	70	86.4%	7	33.3%	67	82.7%	
VT	48	108	9	18.8%	105	97.2%	9	18.8%	105	97.2%	9	18.8%	105	97.2%	
WA	147	656	96	65.3%	644	98.2%	103	70.1%	647	98.6%	96	65.3%	644	98.2%	
WI	459	1994	241	52.5%	1985	99.5%	241	52.5%	1985	99.5%	459	100.0%	1535	77.0%	
WV	568	1885	245	43.1%	1769	93.8%	359	63.2%	1864	98.9%	301	53.0%	1792	95.1%	
WY	40	1710	10	25.0%	1706	99.8%	10	25.0%	1710	100.0%	10	25.0%	1709	99.9%	
National	24015	74099	12727	53.0%	59299	80.0%	13917	58.0%	61720	83.3%	16754	69.8%	61459	82.9%	

State Breakdown of the Number and Percentage of NPDES Standard Permit Outfalls with Missing Data in PCS (as of July 2000)

State	Source			Datum			HUC Code			Reach Segment		
	PLLS		#	PLLT		#	PHBC		#	PSEG		#
	Majors	Minors		Majors	Minors		Majors	Minors		Majors	Minors	
	%	%		%	%		%	%		%	%	
AK	52	284	52	54.2%	284	96	100.0%	287	96	100.0%	287	100.0%
AL	641	2248	641	67.2%	2248	741	77.7%	2113	774	81.1%	2126	91.8%
AR	131	263	131	42.0%	263	21	6.7%	124	308	98.7%	870	100.0%
AS	4	3	4	100.0%	3	4	100.0%	3	4	100.0%	3	100.0%
AZ	155	82	155	55.0%	79	199	90.9%	114	199	90.9%	114	76.5%
CA	318	692	318	52.8%	692	408	67.8%	685	410	68.1%	685	98.1%
CO	169	990	169	61.0%	986	200	72.2%	832	200	72.2%	832	82.6%
CT	75	134	74	29.8%	134	91	36.7%	110	91	36.7%	110	78.0%
DC	5	40	5	26.3%	39	19	100.0%	40	19	100.0%	40	100.0%
DE	30	61	30	41.7%	61	72	100.0%	66	72	100.0%	66	100.0%
FL	626	553	626	90.2%	553	568	81.8%	489	568	81.8%	489	87.6%
GA	261	930	261	98.5%	930	233	87.9%	595	233	87.9%	595	64.0%
GU	8	11	8	100.0%	11	8	100.0%	11	8	100.0%	11	100.0%
HI	24	22	24	41.4%	22	54	93.1%	46	54	93.1%	46	83.6%
IA	628	2371	628	100.0%	2371	628	100.0%	2371	628	100.0%	2371	100.0%
ID	31	286	31	39.7%	286	78	100.0%	302	78	100.0%	302	100.0%
IL	1318	4155	1318	100.0%	4155	127	9.6%	815	1318	100.0%	4155	100.0%
IN	941	933	941	75.4%	940	927	74.3%	1420	976	78.2%	1522	90.9%
JA	0	1	0	0.0%	1	0	0.0%	1	0	0.0%	1	100.0%
KS	41	1242	41	38.0%	1242	62	57.4%	926	62	57.4%	926	74.1%
KY	221	2194	218	51.2%	2194	301	70.7%	2500	301	70.7%	2500	90.0%
LA	689	3997	684	58.2%	3997	872	74.2%	3682	976	83.1%	3685	91.7%
MA	131	647	127	38.4%	648	187	56.5%	663	187	56.5%	680	93.0%
MD	96	1005	96	95.8%	1005	275	100.0%	1049	275	100.0%	1049	100.0%
ME	142	424	142	78.5%	424	91	50.3%	323	91	50.3%	323	75.5%
MI	487	740	487	100.0%	740	479	98.4%	740	487	100.0%	740	100.0%
MN	322	1435	322	100.0%	1435	322	100.0%	1435	322	100.0%	1435	100.0%
MO	247	2658	246	50.1%	2657	184	37.5%	1671	431	87.8%	3845	97.6%
MS	92	2171	92	62.6%	2171	94	63.9%	1860	94	63.9%	1860	85.6%
MT	71	246	71	60.7%	246	78	66.7%	177	78	66.7%	177	70.8%
MW	0	1	0	0.0%	1	0	0.0%	1	0	0.0%	1	100.0%
NC	55	1372	53	17.2%	1372	98	31.7%	1366	98	31.7%	1366	99.3%
ND	45	195	42	47.7%	195	65	73.9%	181	67	76.1%	181	92.8%
NE	161	1785	161	100.0%	1785	161	100.0%	1785	161	100.0%	1785	100.0%
NH	76	201	76	99.0%	201	79	55.6%	185	79	55.6%	185	91.1%
NI	2	3	2	100.0%	3	2	100.0%	3	2	100.0%	3	100.0%
NJ	66	2239	65	22.4%	2239	38	13.1%	2553	290	100.0%	3188	100.0%
NM	133	304	133	79.6%	304	142	85.0%	258	142	85.0%	258	84.9%

State Breakdown of the Number and Percentage of NPDES Standard Permit Outfalls with Missing Data in PCS (as of July 2000)

	Source			Datum			HUC Code			Reach Segment		
	PLLS			PLLT			PHBC			PSEG		
	Majors	%	#	Majors	%	#	Majors	%	#	Majors	%	#
State	#	%	#	#	%	#	#	%	#	#	%	#
NV	6	37.5%	70	6	37.5%	70	8	50.0%	70	8	50.0%	70
NY	719	56.4%	2699	681	53.5%	1737	705	55.3%	1771	1274	100.0%	2891
OH	2416	100.0%	7609	2416	100.0%	7609	2416	100.0%	7609	2416	100.0%	7609
OK	352	75.9%	536	352	75.9%	536	391	84.3%	544	391	84.3%	544
OR	94	65.7%	274	94	65.7%	274	143	100.0%	279	143	100.0%	279
PA	221	18.8%	3909	220	18.7%	3907	1177	100.0%	4125	1177	100.0%	4125
PR	75	51.0%	160	75	51.0%	160	147	100.0%	205	147	100.0%	205
RI	14	24.1%	165	14	24.1%	165	37	63.8%	152	37	63.8%	152
SC	156	40.8%	366	154	40.3%	366	231	60.5%	445	231	60.5%	445
SD	31	44.9%	375	30	43.5%	374	46	66.7%	198	48	69.6%	249
TN	1071	84.0%	2087	1071	84.0%	2087	1128	88.5%	1837	1128	88.5%	1837
TX	1741	73.7%	3530	1721	72.9%	3530	1892	80.1%	3083	1913	81.0%	3100
UT	27	42.2%	174	26	40.6%	174	37	57.8%	141	37	57.8%	141
VA	549	96.8%	3059	549	96.8%	3059	567	100.0%	3083	567	100.0%	3083
VI	7	33.3%	67	7	33.3%	67	21	100.0%	81	21	100.0%	81
VT	9	18.8%	105	9	18.8%	105	10	20.8%	103	10	20.8%	103
WA	99	67.3%	644	96	65.3%	644	147	100.0%	656	147	100.0%	656
WI	459	100.0%	1994	459	100.0%	1994	459	100.0%	1994	459	100.0%	1994
WV	302	53.2%	1792	301	53.0%	1792	568	100.0%	1885	568	100.0%	1885
WY	10	25.0%	1709	10	25.0%	1709	19	47.5%	1612	19	47.5%	1612
National	16852	70.2%	68242	16765	69.8%	67276	18153	75.6%	61655	20920	87.1%	69873