US EPA ARCHIVE DOCUMENT

APPENDIX G

Surface Water Monitoring Sampling Locations

STREAM MONITORING PROGRAM
SUMMARY SHEET

Program Name:	SURFACE WATER MONITORING
Responsibility:	DIVISION OF INDUSTRIAL WASTE

Objective(s):

To provide a baseline for assessing stream water quality during dry and wet weather conditions; To establish a database of historical data to be used as supporting information when evaluating limits established in mandated programs (NPDES discharge limits, TMDLs, water quality standards, Local Limits, etc.); To provide supporting documentation of the actual effectiveness/impact of the District's activities and programs on the environment; Provide information for responding to and resolving citizen's complaints; Identification of point and non-point sources that affect or have the potential to affect the water quality of the surface waters of Hamilton County to assist in special/investigative responses; Identification of illegal discharges to surface waters; Provide a baseline of data prior to extending sewer service to areas of Hamilton County;

How long has this program been active?	Initiated in 1995
Program Activities:	• General description of activities • Where, how many sites? • Frequency of sampling? • Type of sampling (grab, composite, descrete)

The Division of Industrial Waste implemented a stream-monitoring program in late 1994. Full implementation was established in 1995. Sample locations on the major surface water sites in Hamilton County have been identified. The sample locations bracket known CSOs and SSOs in sewered areas; are located at the points where all water bodies enter and exit Hamilton County; may be located in areas identified as problems by the Division or other agencies; and upstream and downstream of the discharges of WWTP. At present, grab samples are taken in midstream at forty-six locations every three to four weeks. In 2001, sampling will be conducted monthly. Map of Sampling Locations attached.

Analysis:	• Parameters • QA/QC Procedures (field, lab, assessment)

Samples are analyzed for metals, volatile and semi-volatile organics, phenols, oil and grease, and fecal coliform. Samples are included in the Division's established field and laboratory QA/QC program, which include field, trip, and sample blanks; precision and accuracy determination of at least 10% of all samples analyzed, etc.

Data Management:	• Format (paper, electronic) • Is there historical data? • Where does the data resided? • Who has access?

At present data is maintained in both electronic and paper format in the Division of Industrial Waste's files and databases. Historical data dates back to 1995. Members of the Division's staff can access the data.

Reporting:	• Who are you reporting too? Internal/External • Format • Frequency

Data is reported to the Superintendent of the Division of Industrial Waste if review reveals problems or distinct deviations from previous data. Investigations into causes generate follow-up activities that may include other divisions, local or state agencies. When data is required for follow-up of investigations involving other agencies, data is also reported to that agency, i.e. OEPA, in the format requested. Data has been published in the Department's Water Quality Report in 1998. Data has also been requested by a variety of groups, such as USGS, Green Acres Foundation, school programs, and several environmental organizations.

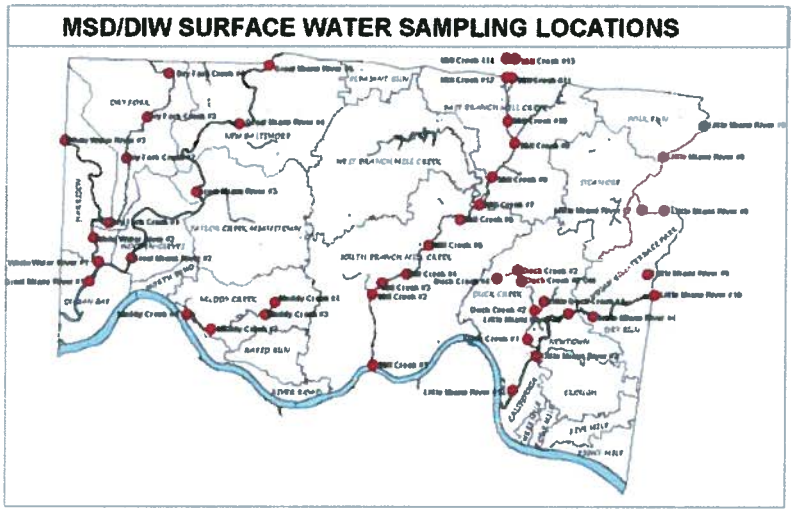
Future Needs:	• Where is the program going? • Is there a need to expand/enhance? • When are these changes required • Are there regulatory needs coming?

The program is being expanded in 2001 to include the collection of physical and field data such as temperature, dissolved oxygen, conductivity, pH, and weather conditions. Also, due to previous staffing conditions, there is a preponderance of dry weather data. With the filling of a previously vacant position,

plans are to increase the sampling frequency to include more wet weather sampling. Additional goals include the correlation of rainfall data with the sampling events: development of a model for tracing slug loadings in local surface waters; customization of the GIS to include improved functionality for accessing data on the sample locations; and more consistent review of the data to evaluate changes or additions to existing divisional programs and activities. Continuation of this program provides additional support for the proposed SSO rule, which includes an ambient water quality monitoring program in the CMOM requirements.

Comments: Map of Sampling Locations

1.1 Map of Sampling Locations



MSD/DIW OF GREATER CINCINNATI OHIO
SURFACE WATER SAMPLING LOCATIONS

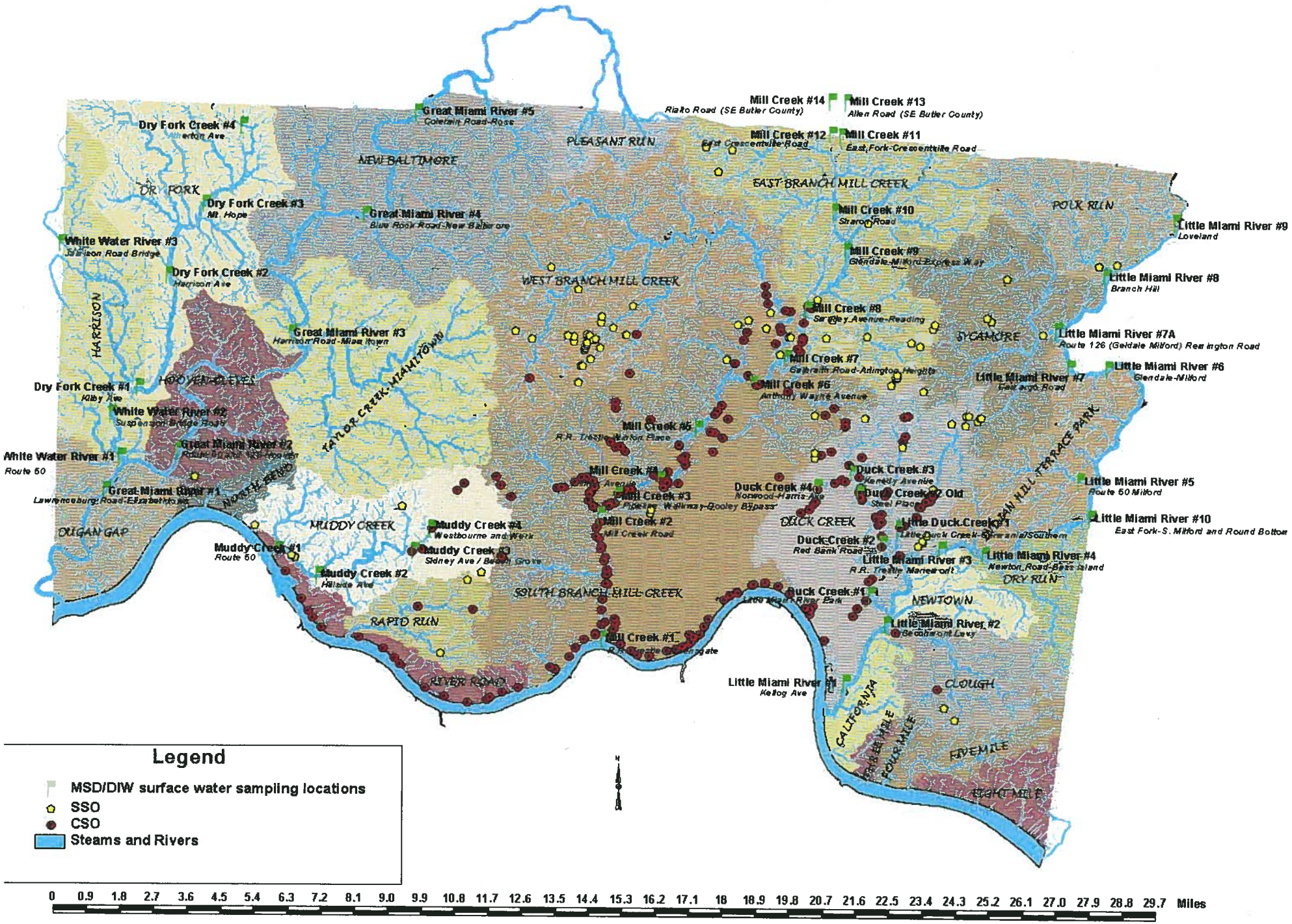
RIVER MILE	LOCATION CODE	SURFACE WATER LOCATION NAME	ADDRESS
0.52	DRY-CR	Dry Fork Creek #1	Kilby Ave
4.32	DRY-CR	Dry Fork Creek #2	Harrison Ave
6.95	DRY-CR	Dry Fork Creek #3	Mt. Hope
9.98	DRY-CR	Dry Fork Creek #4	Atherton Ave
5.45	GM-RV	Great Miami River #1	Lawrenceburg Road/Elizabethtown
8.40	GM-RV	Great Miami River #2	Route 50 and 128/Hooven
15.34	GM-RV	Great Miami River #3	Harrison Road/Miamitown
21.30	GM-RV	Great Miami River #4	Blue Rock Road/New Baltimore
26.14	GM-RV	Great Miami River #5	Colerain Road/Ross
1.07	LD_CR	Little Duck Creek #1	Little Duck Creek-Germania/Southern
1.10	LIT-RV	Little Miami River #1	Kellog Ave
3.32	LIT-RV	Little Miami River #2	Beechmont Levy
6.83	LIT-RV	Little Miami River #3	R.R. Trestle/Mariemont
8.15	LIT-RV	Little Miami River #4	Newton Road/Bass Island
12.98	LIT-RV	Little Miami River #5	Route 50 Milford/Water Street
17.41	LIT-RV	Little Miami River #6	Glendale-Milford
18.40	LIT-RV	Little Miami River #7	Camargo Road
19.40	LIT-RV	Little Miami River #7A	Route 126 (Glendale Milford) Remington Road
21.62	LIT-RV	Little Miami River #8	Branch Hill
24.18	LIT-RV	Little Miami River #9	Loveland
11.60	LIT-RV	Little Miami River #10	East Fork-S. Milford and Round Bottom
0.05	MIL-CR	Mill Creek #1	R.R. Trestle-Queensgate
3.50	MIL-CR	Mill Creek #2	Mill Creek Road
4.25	MIL-CR	Mill Creek #3	Pipeline Walkway/Dooley Bypass
5.52	MIL-CR	Mill Creek #4	Clifton Avenue
7.45	MIL-CR	Mill Creek #5	R.R. Trestle Winton Place
10.00	MIL-CR	Mill Creek #6	Anthony Wayne Avenue
11.30	MIL-CR	Mill Creek #7	Galbraith Road/Arlington Heights
12.88	MIL-CR	Mill Creek #8	Smalley Avenue/Reading
14.80	MIL-CR	Mill Creek #9	Glendale-Milford Express Way
16.00	MIL-CR	Mill Creek #10	Sharon Road
18.20	MIL-CR	Mill Creek #11	East Fork-Crescentville Road
18.20	MIL-CR	Mill Creek #12	East Crescentville Road
19.10	MIL-CR	Mill Creek #13	Allen Road (SE Butler County)
19.10	MIL-CR	Mill Creek #14	Rialto Road (SE Butler County)
0.16	MUD-CR	Muddy Creek #1	Route 50
1.95	MUD-CR	Muddy Creek #2	Hillside Ave
6.10	MUD-CR	Muddy Creek #3	Sidney Ave/Beech Grove
6.95	MUD-CR	Muddy Creek #4	Westbourne and Werk
0.17	WW-RV	White Water River #1	Route 50
1.52	WW-RV	White Water River #2	Suspension Bridge Road
8.30	WW-RV	White Water River #3	Jamison Road Bridge
0.80	DU_CR	Duck Creek #1	Little Miami River Park
2.45	DU_CR	Duck Creek #2	Red Bank Road
4.58	DU_CR	Duck Creek #2 Old	Steel Place
5.00	DU_CR	Duck Creek #3	Kennedy Avenue
6.10	DU_CR	Duck Creek #4	Norwood/Harris Ave

01/31/2002

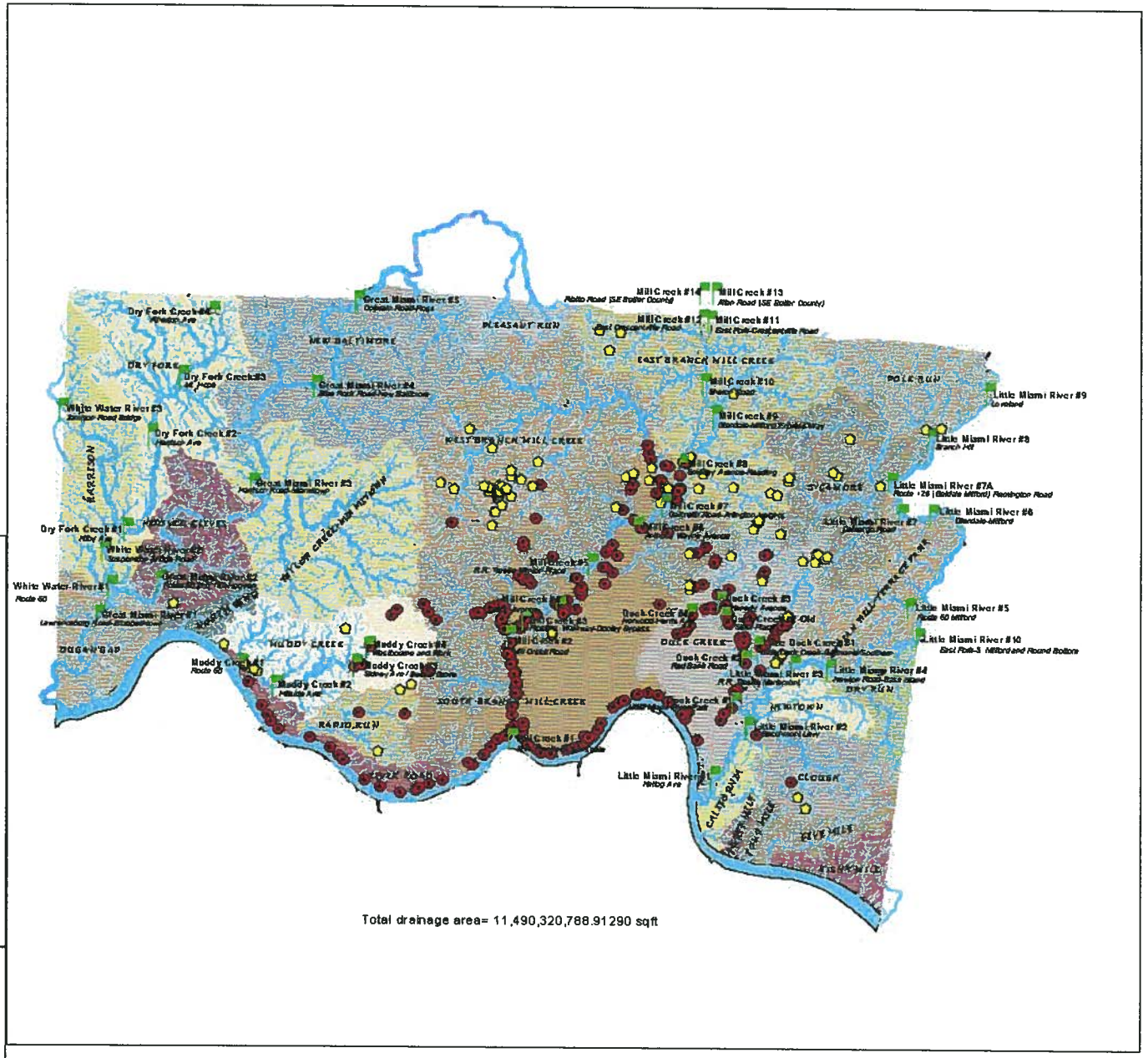
by Evring A. Francis
MSD/DIW/S+S

YEAR 2001

Hamilton County Ohio Drainage Basin and Waterways



Hamilton County drainage basins



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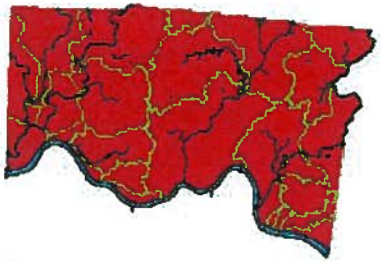


- MSD/DIW surface water sampling locations
- SSO
- CSO
- Steams and Rivers

0 1.5 3 4.5 6 7.5 9 10.5 12 13.5 15 16.5 18 19.5 21 22.5 24 25.5 27 28.5 Miles

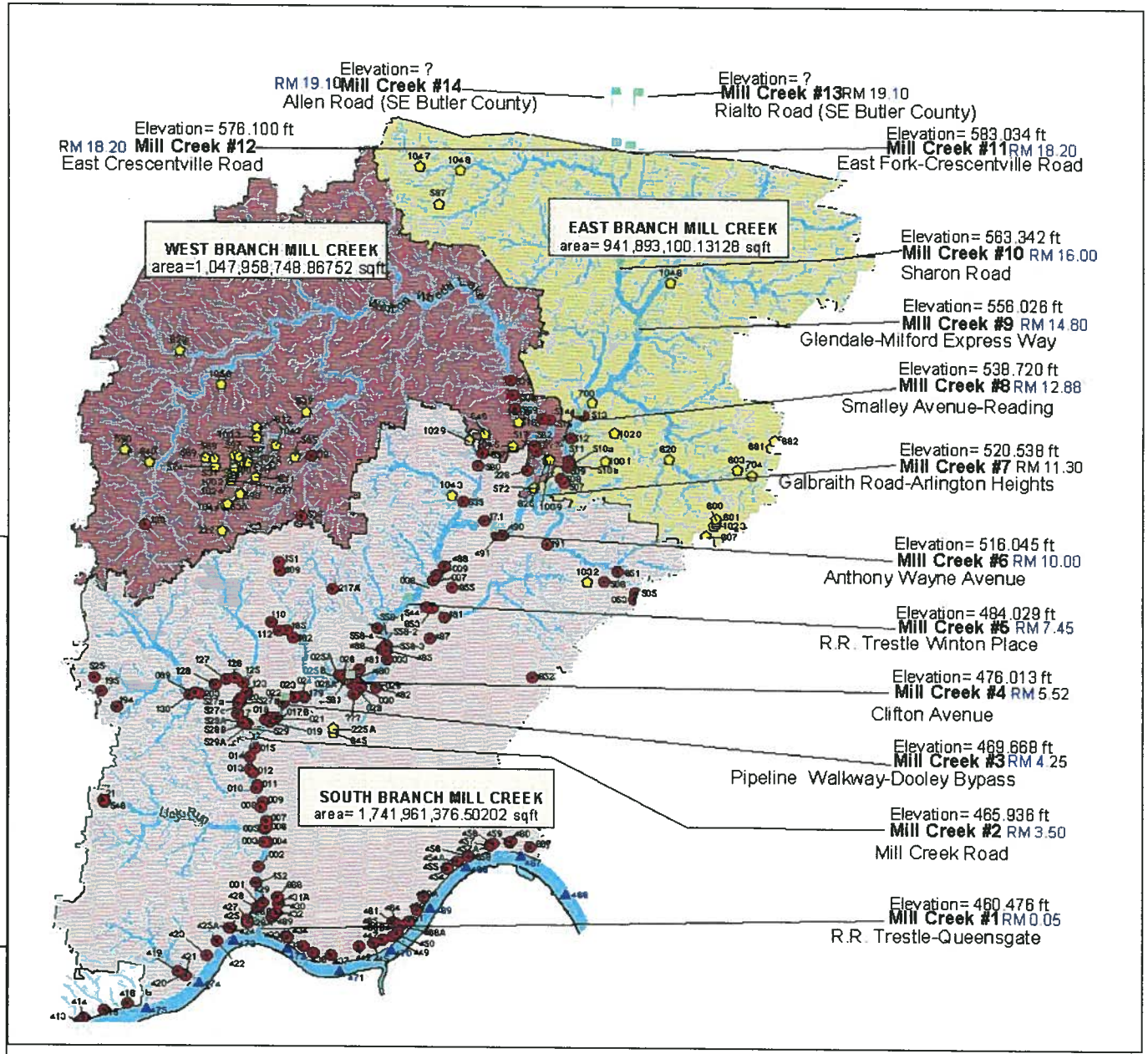
M S D
Greater Cincinnati Hamilton County

A product of
MSD
from
CAGIS
data

map by
Irving A. Francis
MSD/DIW/SSS
September 2000

Mill Creek drainage basin

NOTE: EAST BRANCHMILL CREEK extends futher north into Butler County across the Hamilton County boundary line.
Therefore, drainage area into the Mill Creek from Butler County is not represented on this map.



Legend

- MSD/DIW surface water sampling locations
- SSO
- CSO
- Ohio River mile mark
- Streams and Rivers

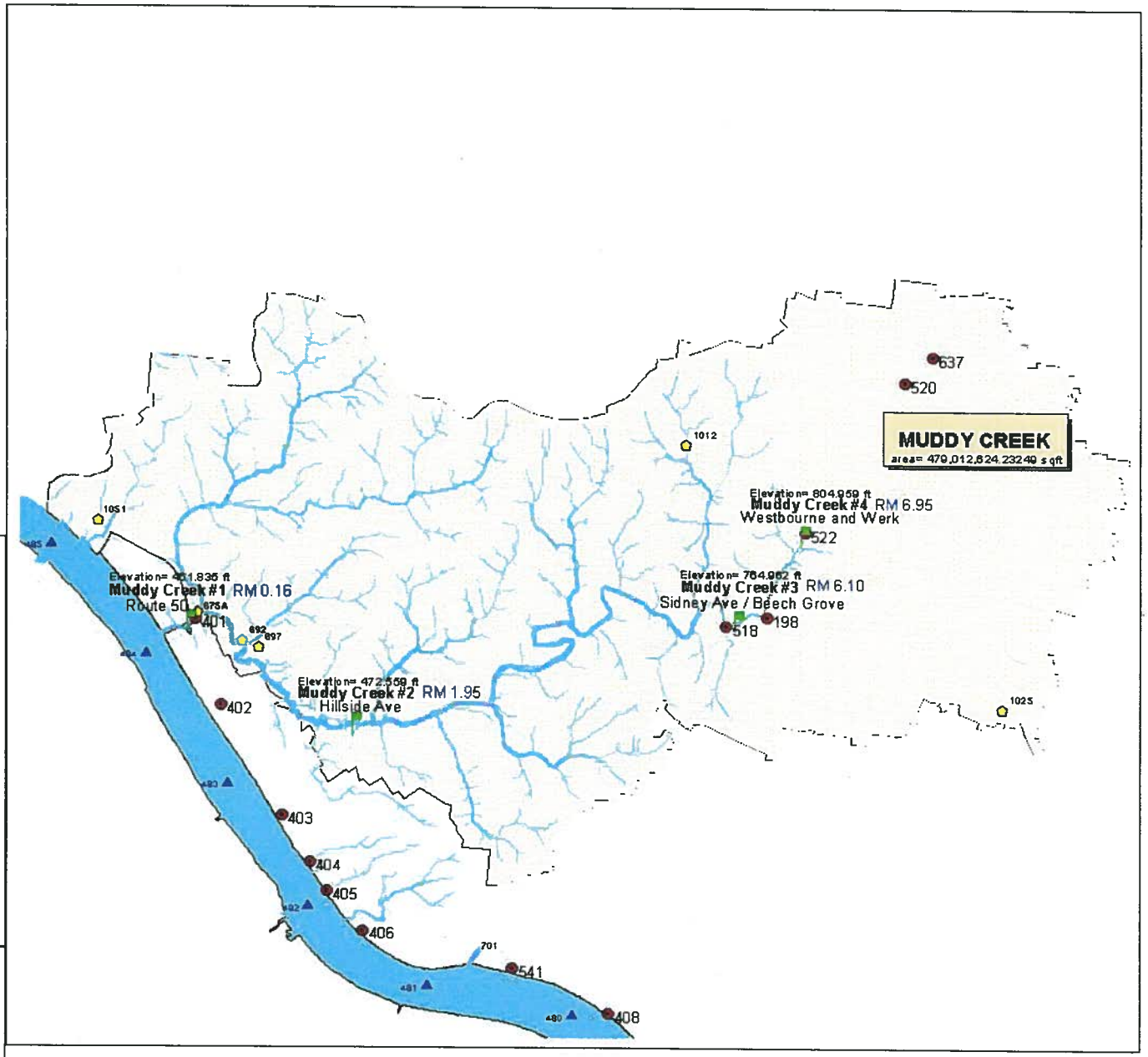
total basin acreage= 85,670.6 acres

M S D
Greater Cincinnati Hamilton County

A product of MSD from CAGIS data

map by
Evring A. Francis
MSD/D MWS&S
September 2000

Muddy Creek drainage basin



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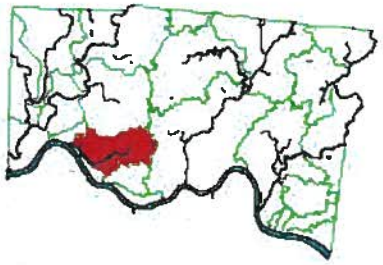

- MSD/DIW surface water sampling locations
- SSO
- CSO
- Ohio River mile mark
- Streams and Rivers

total basin acreage= 10,996.6 acres

M S D
Greater Cincinnati Hamilton County

A product of
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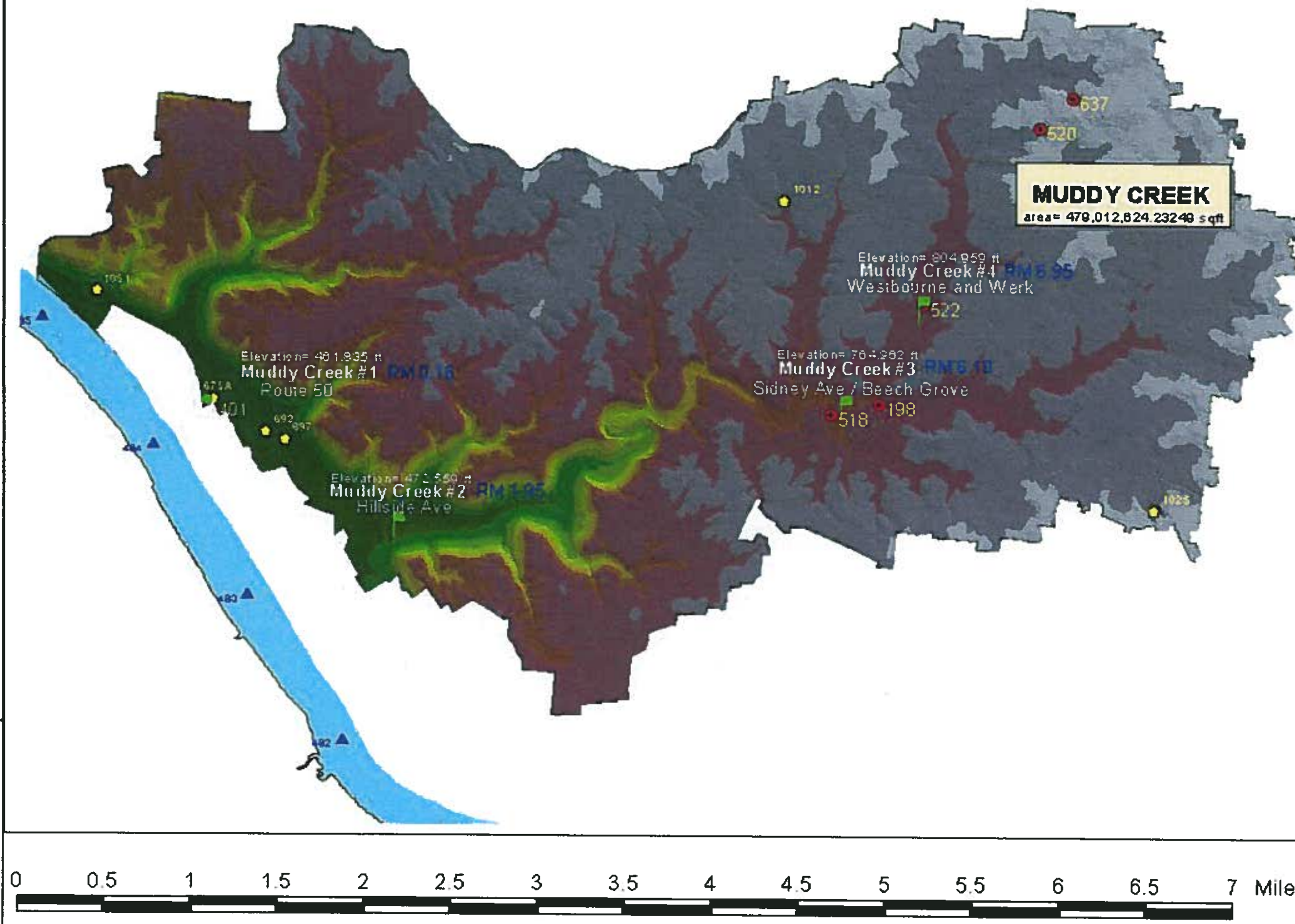
from
CAGIS
data

map by
Erving A. Francis
MSD/DWS&S
September 2000

Muddy Creek 3D drainage basin



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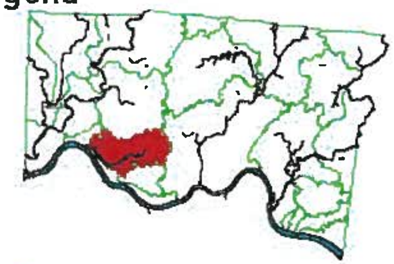


- MSD/DIW surface water sampling locations
- SSO
- CSO
- Ohio River mile mark

Muddy Creek basin TIN

Elevation Range

- 896.667 - 950
- 843.333 - 896.667
- 790 - 843.333
- 736.667 - 790
- 683.333 - 736.667
- 630 - 683.333
- 576.667 - 630
- 523.333 - 576.667
- 470 - 523.333
- Streams and Rivers

total basin acreage= 10,996.6 acres

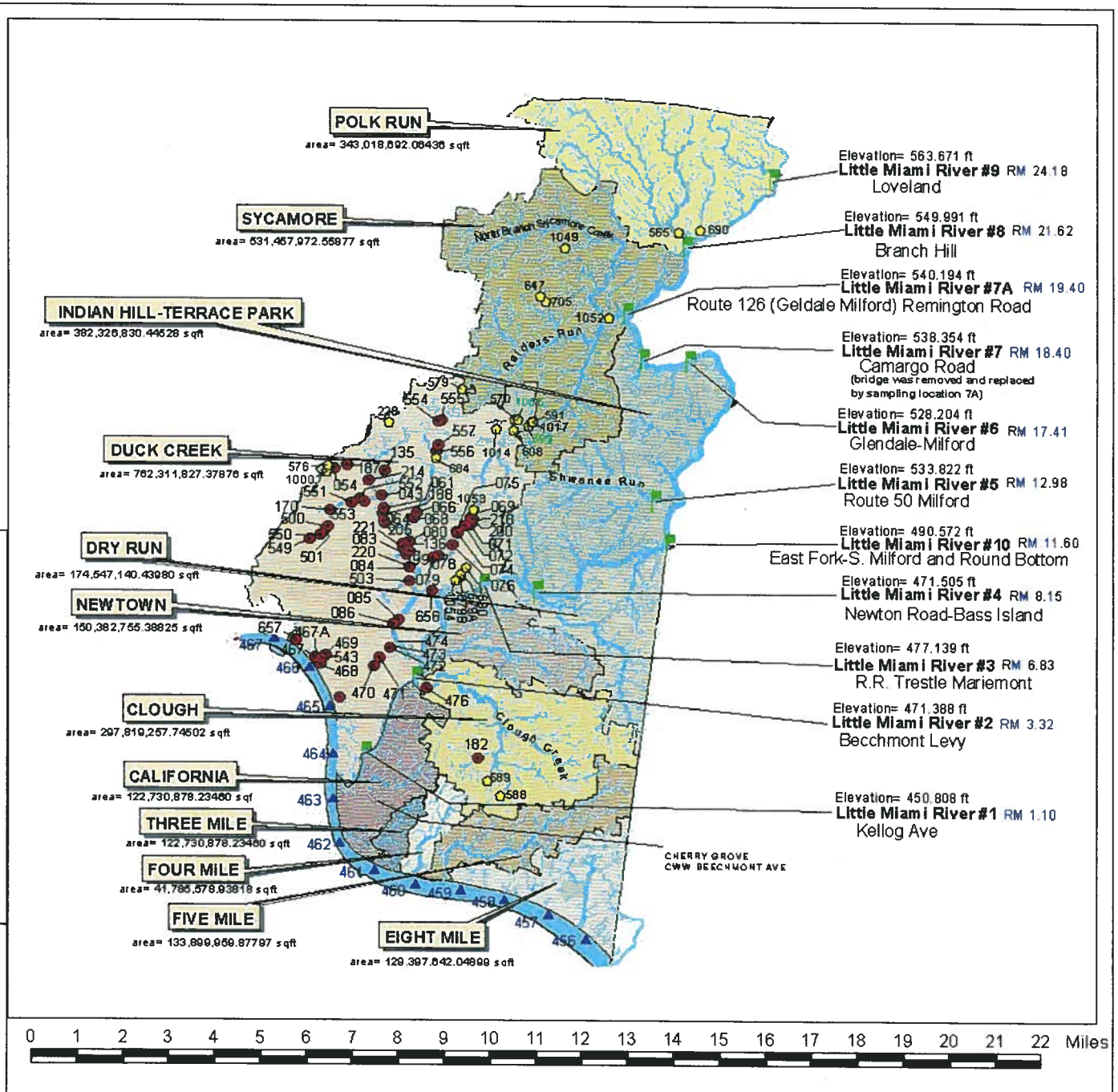
MSD
Greater Cincinnati Hamilton County

A product of MSD from CAGIS data

map by Ewing A. Francis MSD/DIW/S&S September 2000

Little Miami drainage basins

NOTE: DUCK CREEK drainage basin surface water sampling locations is not included.



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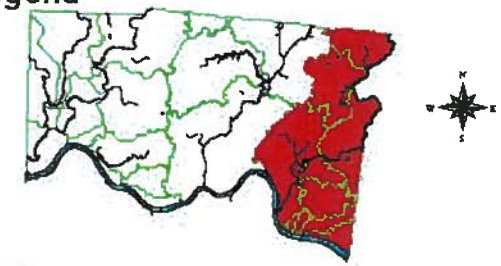

- MSD/DIW surface water sampling locations
- SSO
- CSO
- Ohio River mile mark
- Streams and Rivers

total basin acreage= 68,255 acres

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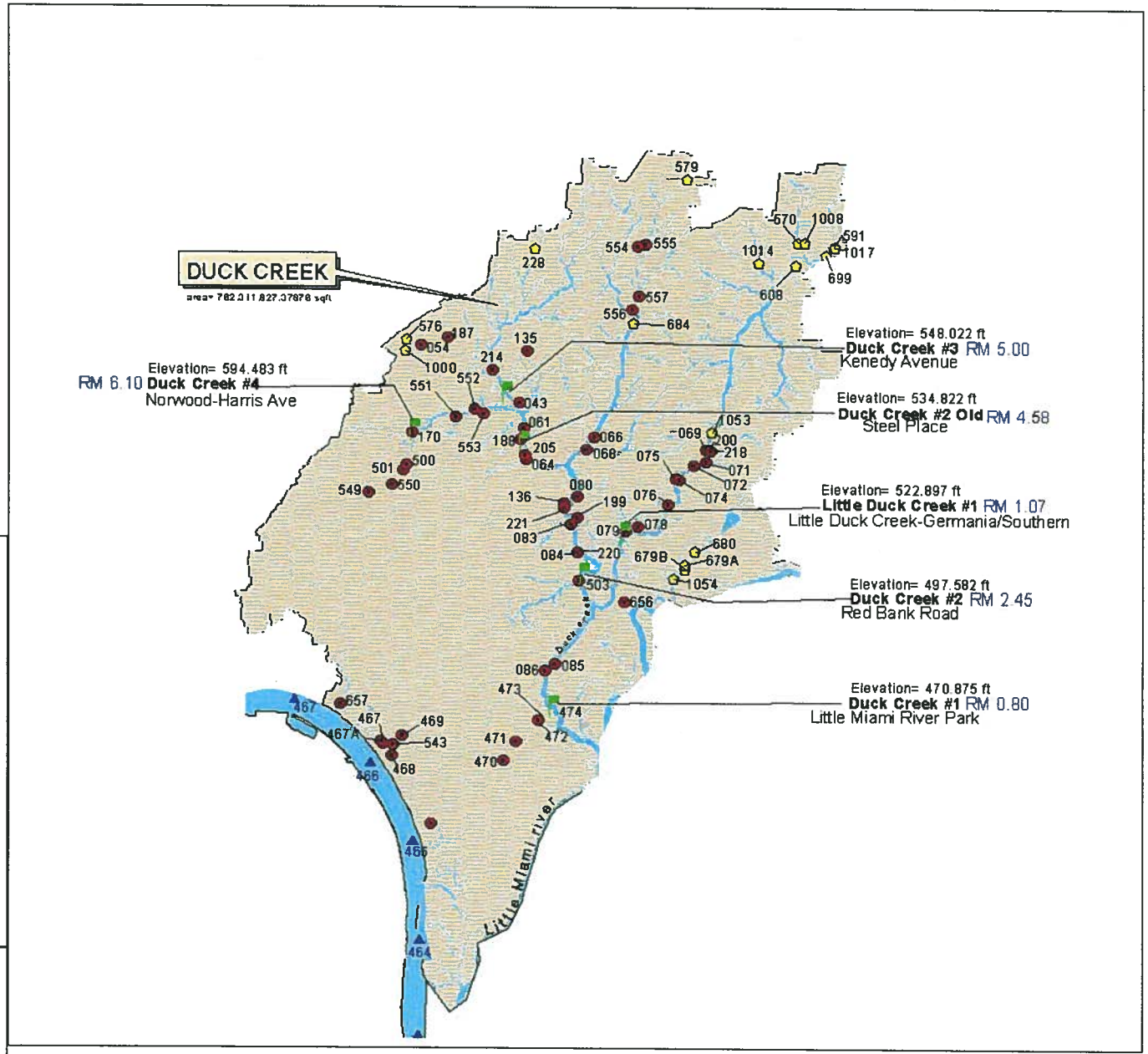
Greater Cincinnati Hamilton County

A product of MSD from CAGIS data

map by
Evring A. Flanders
MSD/D MWS&S
September 2000

Duck Creek drainage basin



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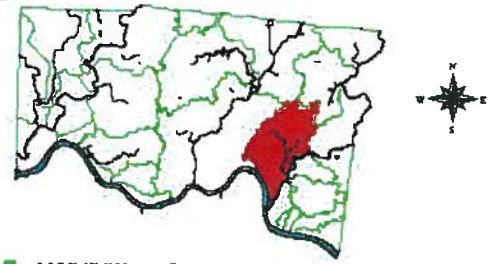


- MSD/DIW surface water sampling locations
- SSO
- CSO
- Ohio River mile mark
- Streams and Rivers

total basin acreage= 17,500.3 acres

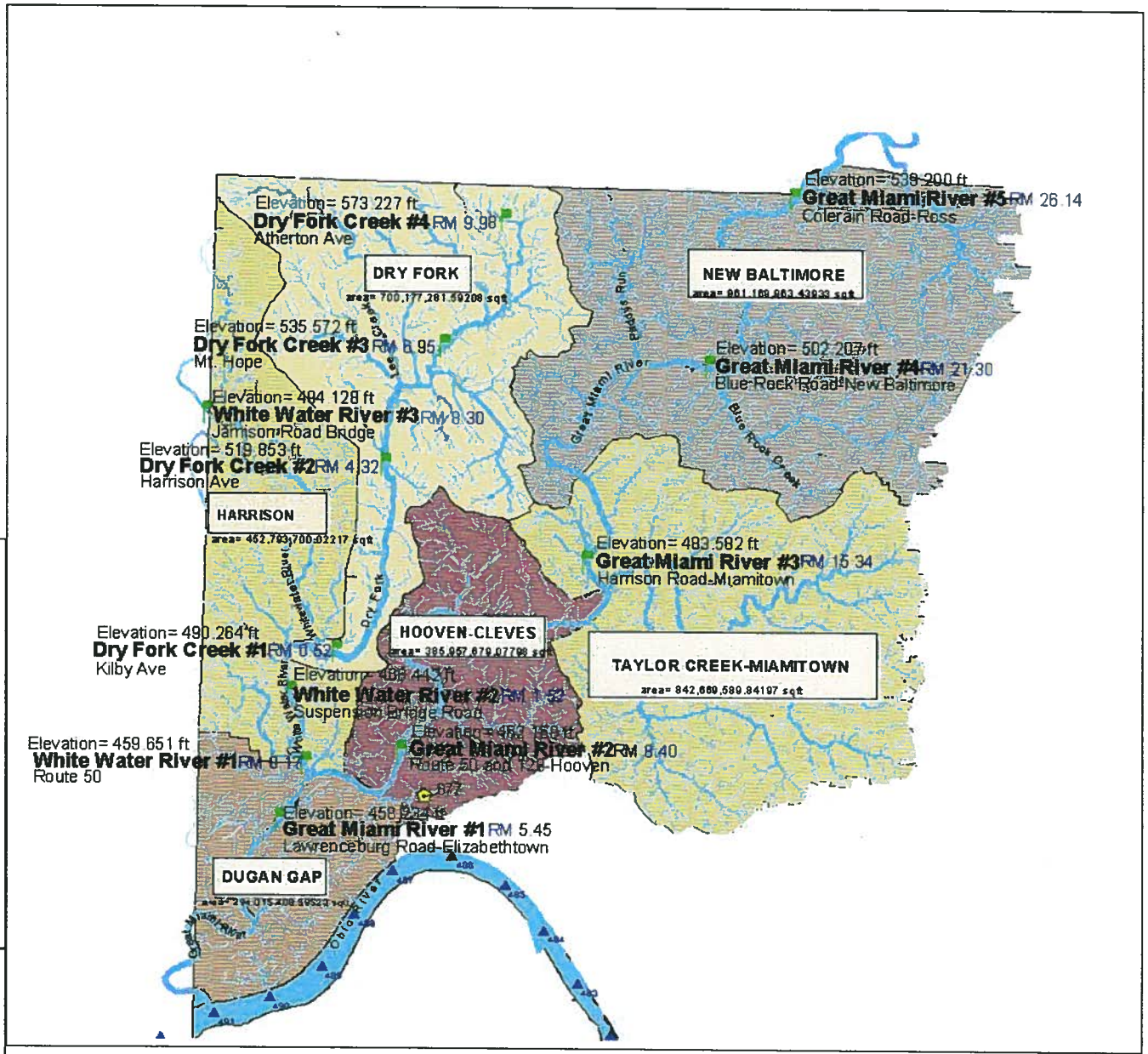
M S D
Greater Cincinnati Hamilton County

A product of MSD from CAGIS data

map by
Irving A. Francis
MSD/DWS&S
September 2000

Great Miami drainage basin

This basin includes Dry Fork Creek
Which drains into White Water River
Which drains into the Great Miami River
at the DUGAN GAP basin before
entering the Ohio River.
*Great Miami extends further into
adjacent SW Butler and north into
neighboring counties.



Legend

MSD/DIW surface water sampling locations
SSO
CSO
Ohio River mile mark
Streams and Rivers

***total basin acreage= 83,496 acres**

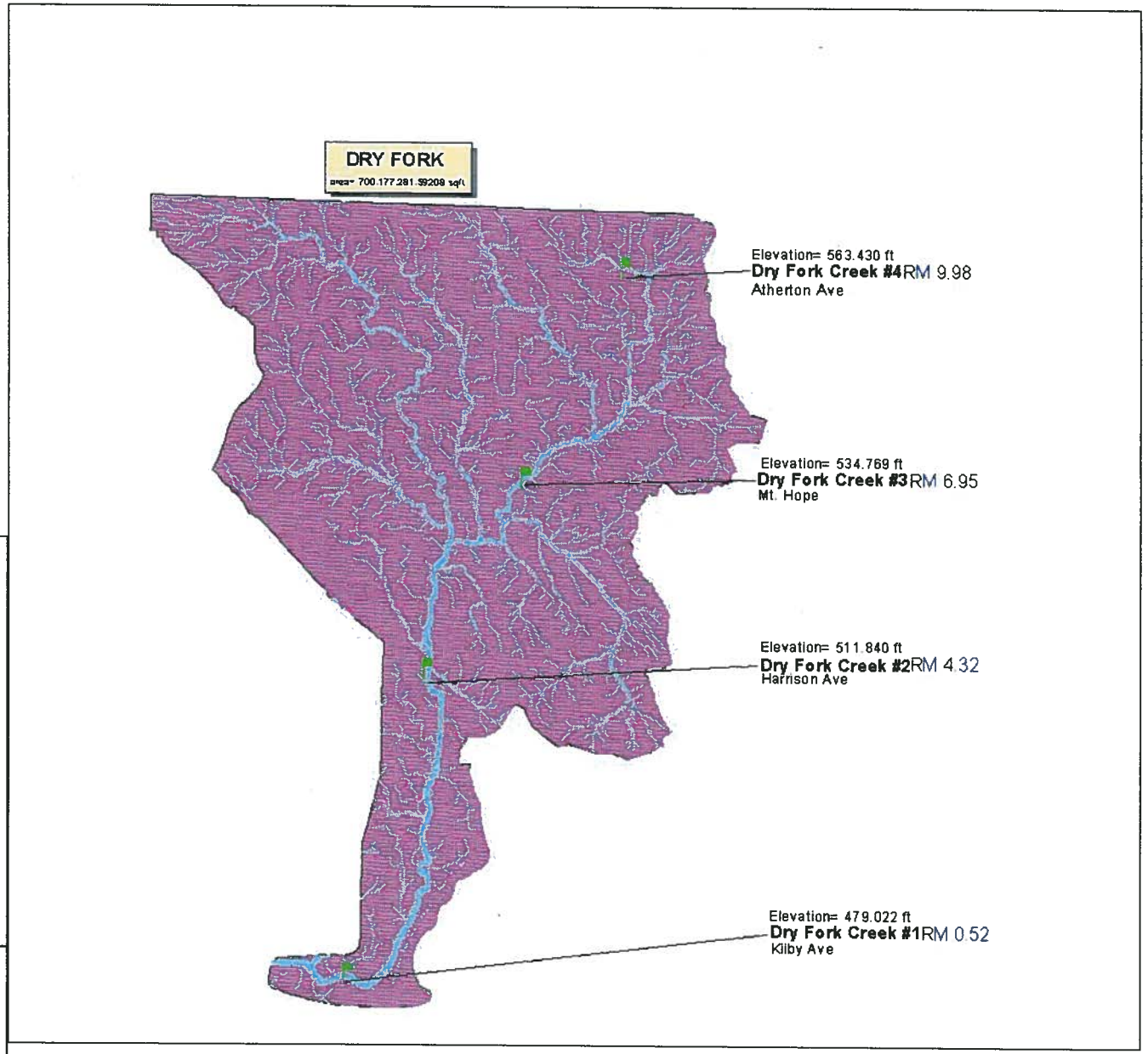
M S D
Greater Cincinnati Hamilton County

A product of
MSD
from
CAGIS
data

map by
Irving A. Francis
MSD/DIW/GIS
September 2000

Dry Fork drainage basin

NOTE: Dry Fork drainage basin does not have any SSOs or CSOs.



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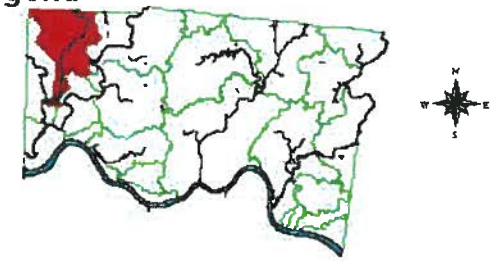


- MSD/DIW surface water sampling locations
- SSO
- CSO

total basin acreage= 16,073.9 acres

M S D
Greater Cincinnati Hamilton County

A product of MSD from CAGIS data

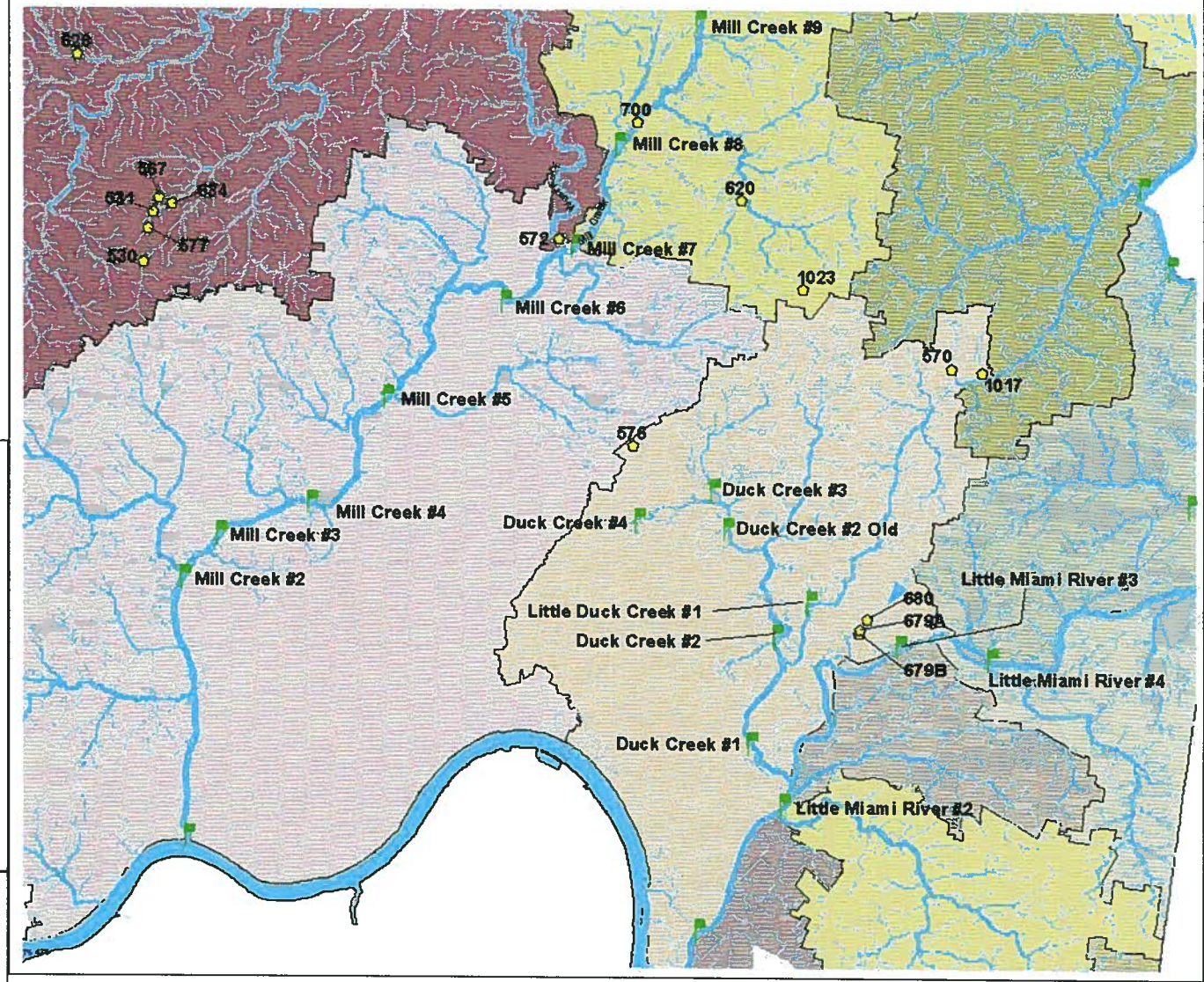
Map by
Ewing A. Francis
MSD/DIW/GIS
September 2006

2001 SSOs

SSOs

NOTE: MSD's most highly active SSOs within Hamilton County, Ohio

SSO#:
530, 531, 567, 570, 572, 576, 620, 628, 634, 679A, 679B, 680, 700, 1017, 1023.



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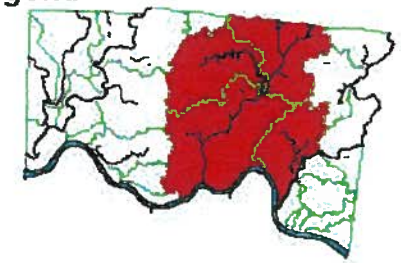


- MSD/DIW surface water sampling locations
- SSO
- Streams and Rivers

M S D
Greater Cincinnati Hamilton County

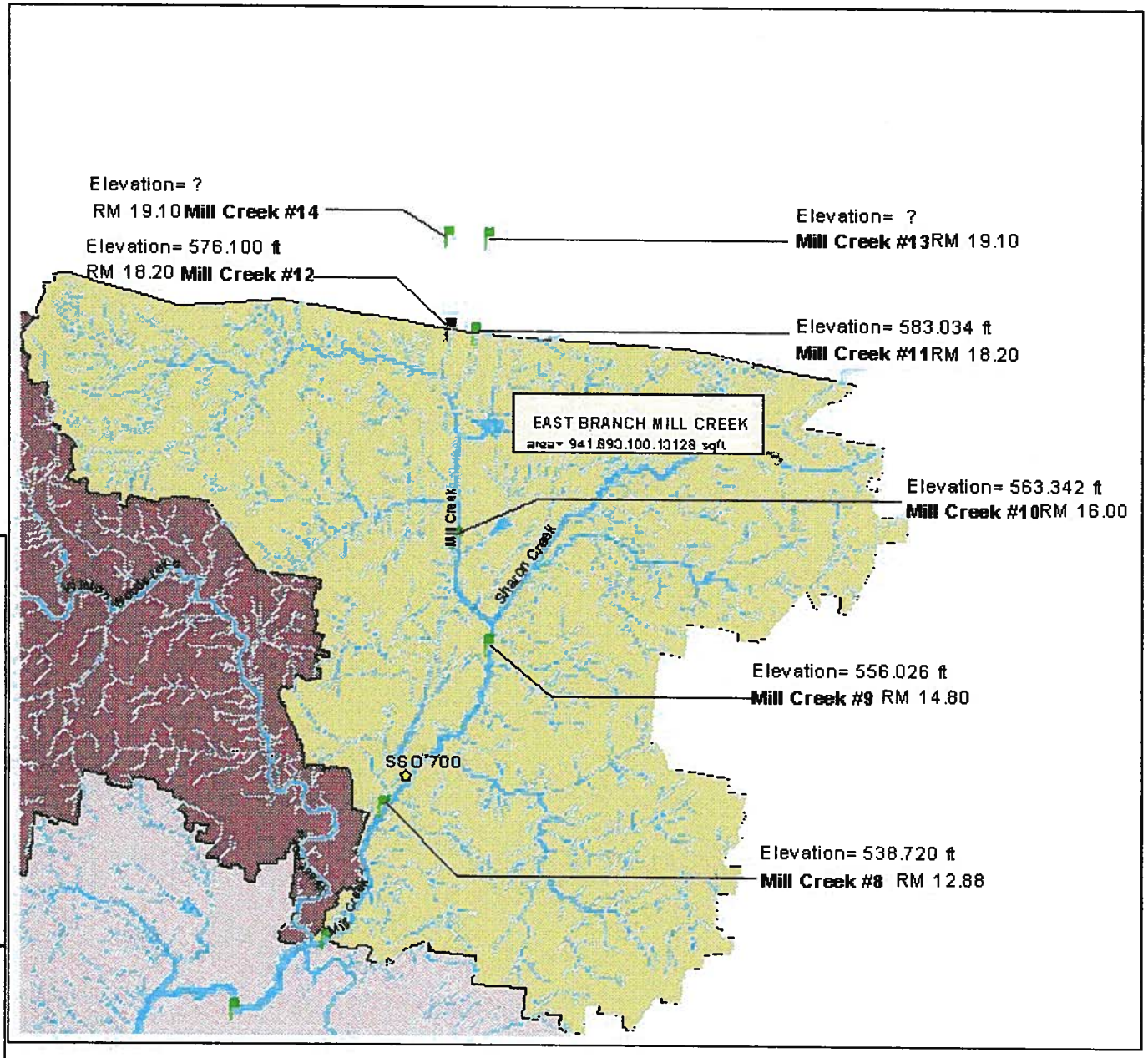
A product of MSD from CAGIS data

map by
Erving A. Francis
MSD/D MWS&S
September 2000

SSO 700

in relations to MSD/DIW
surface water sampling locations

NOTE: This SSO is within the EAST BRANCH MILL CREEK drainage basin.



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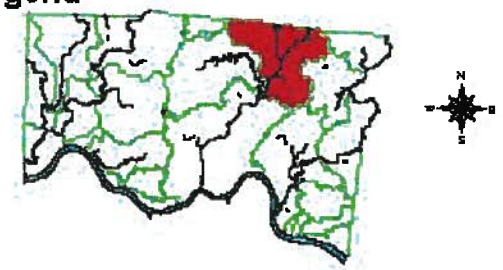
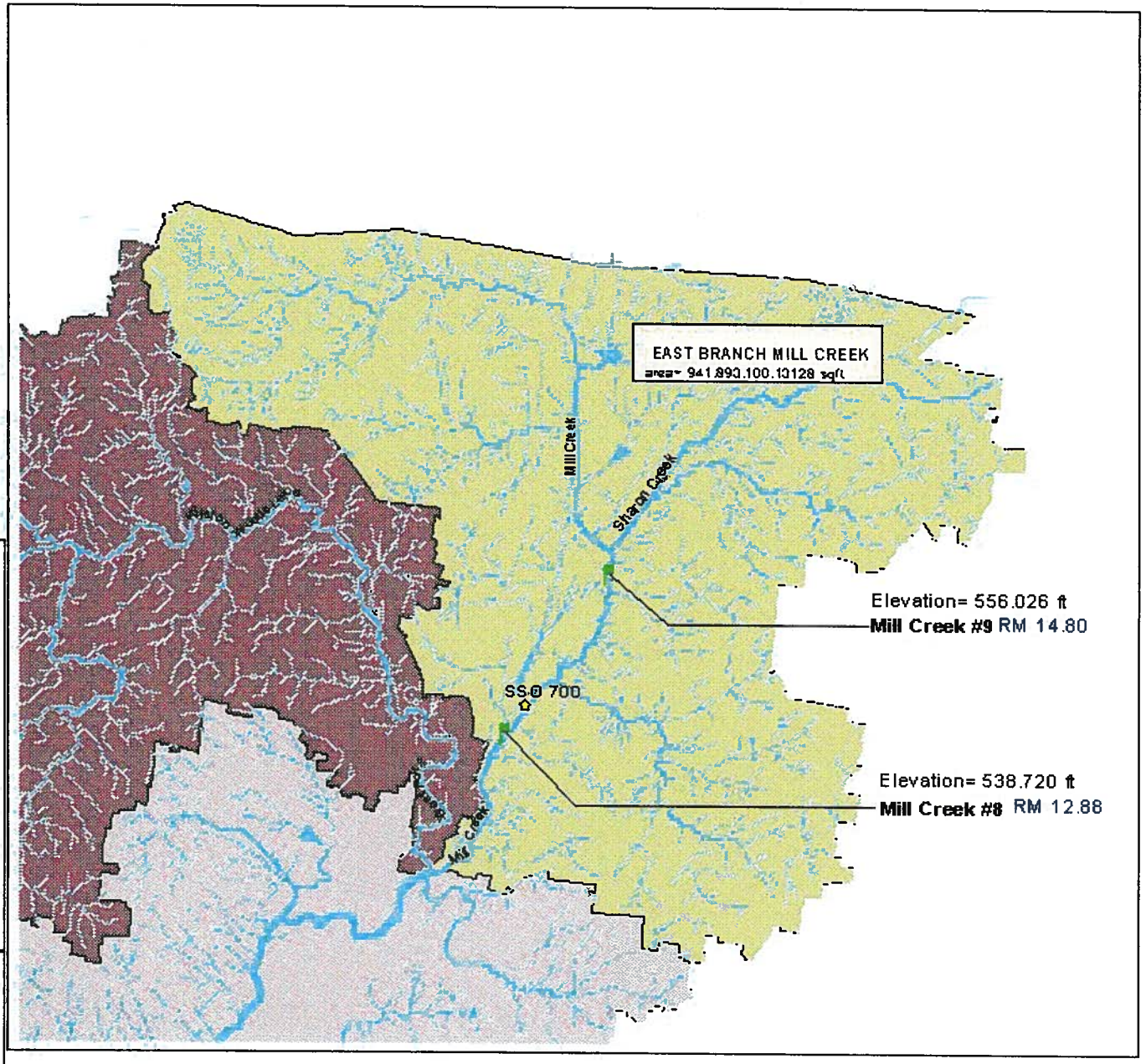


- MSD/DIW surface water sampling locations
- SSO
- Streams and Rivers

A product of
MSD
from
CAGIS
data

SSO 700

NOTE: This SSO is within the EAST BRANCH MILL CREEK drainage basin.



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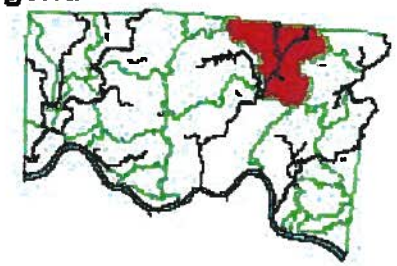


MSD/DW surface water sampling locations

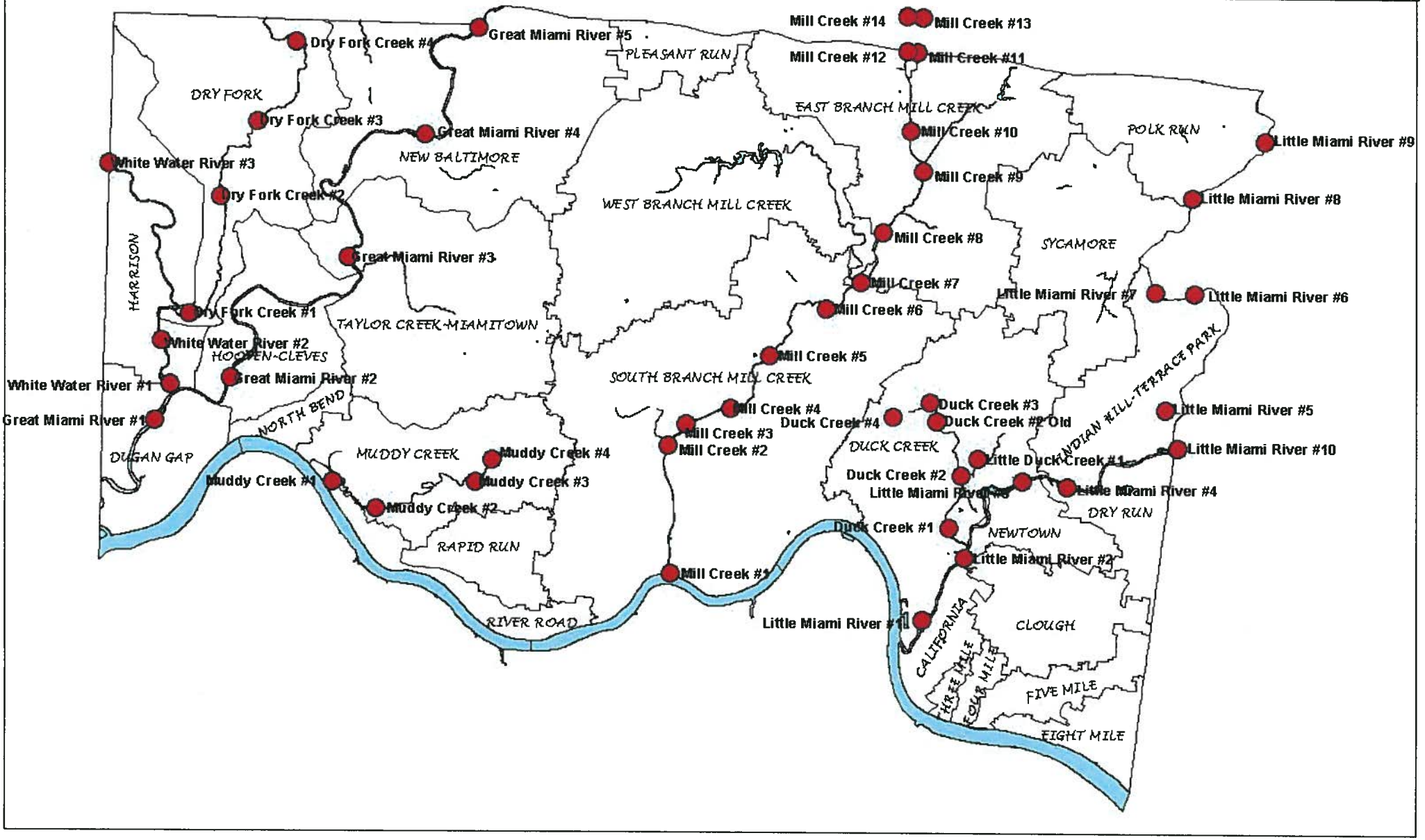
SSO

Streams and Rivers

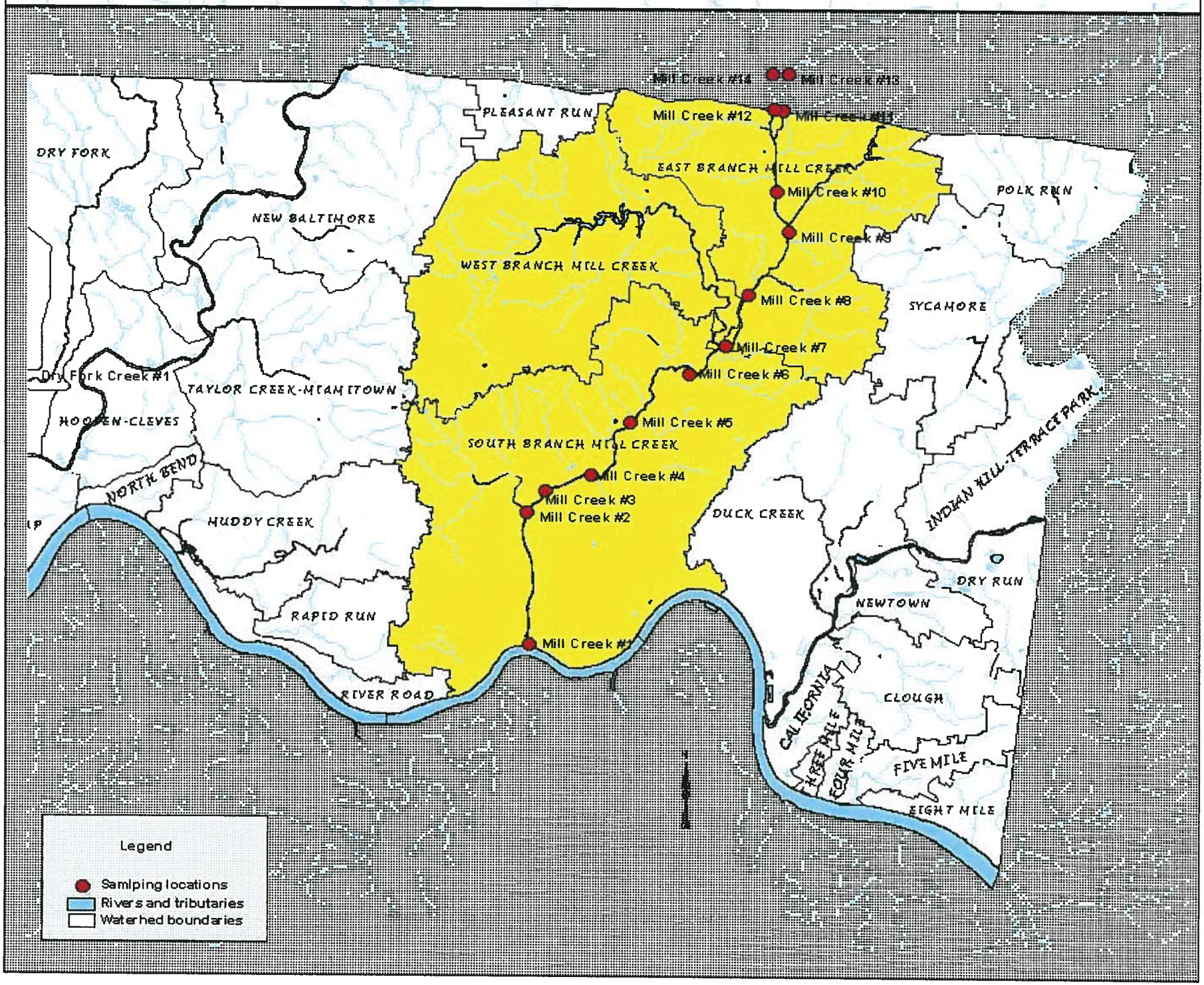
A product of MSD from CAGIS data

YEAR 2000

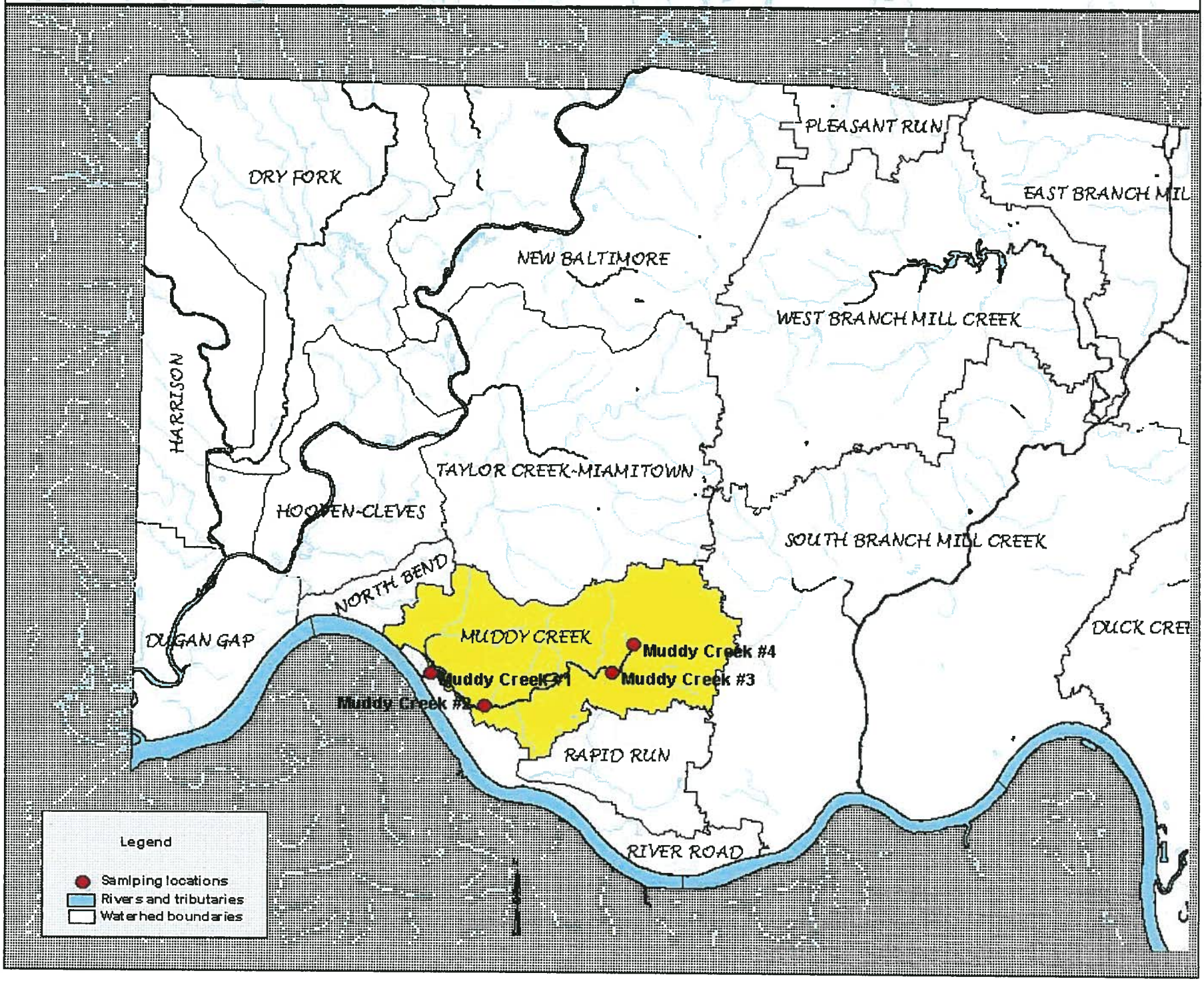
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



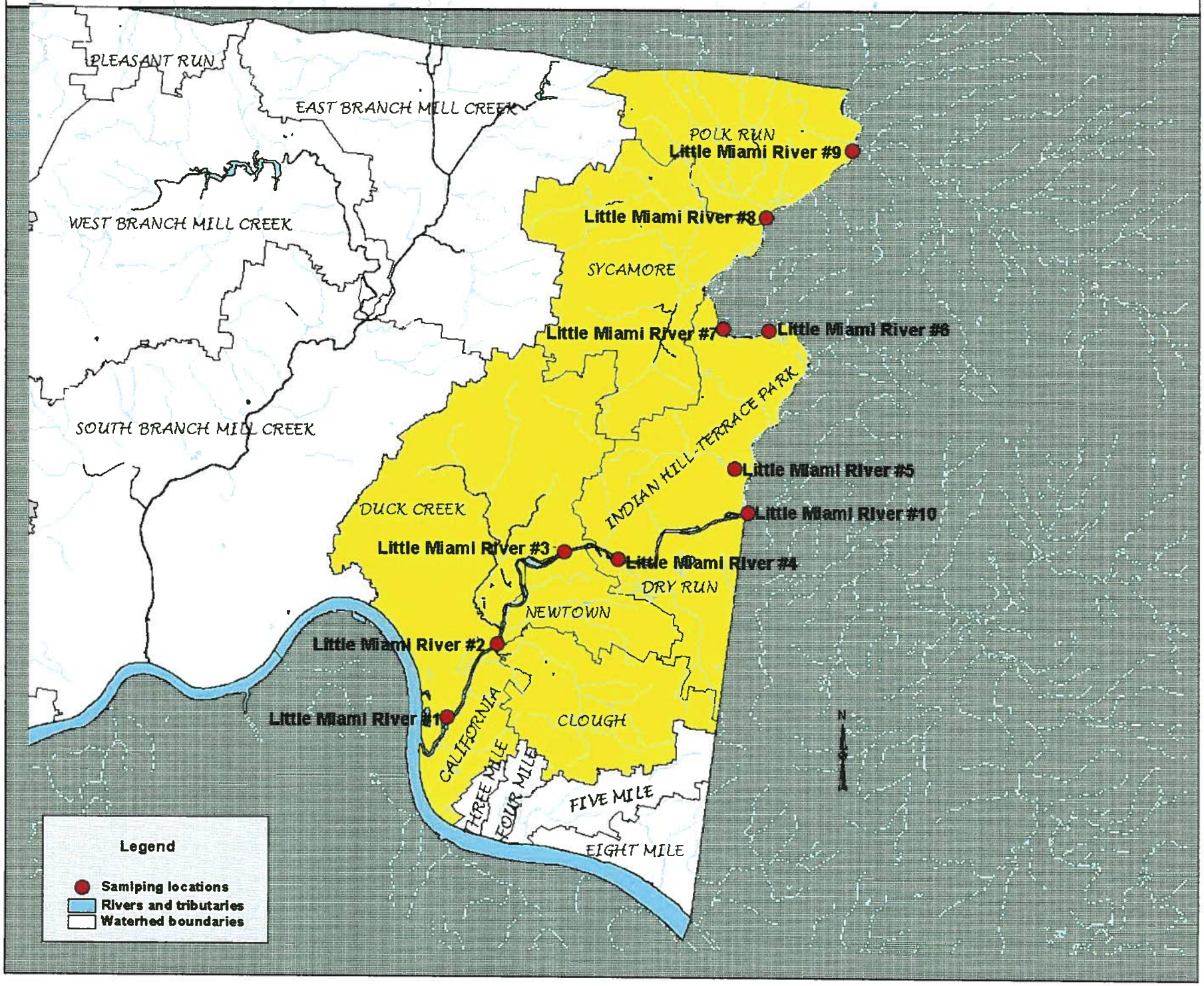
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



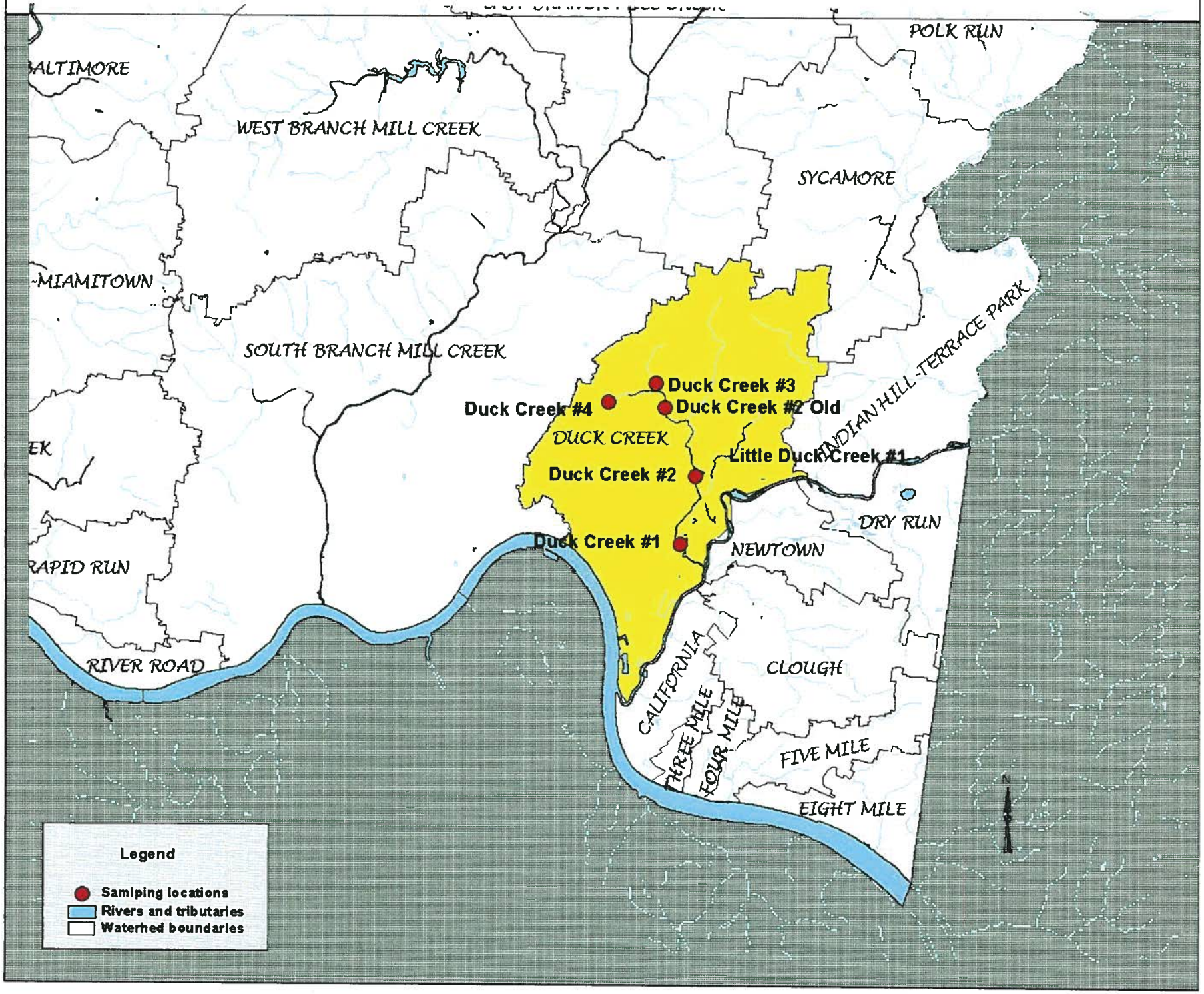
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



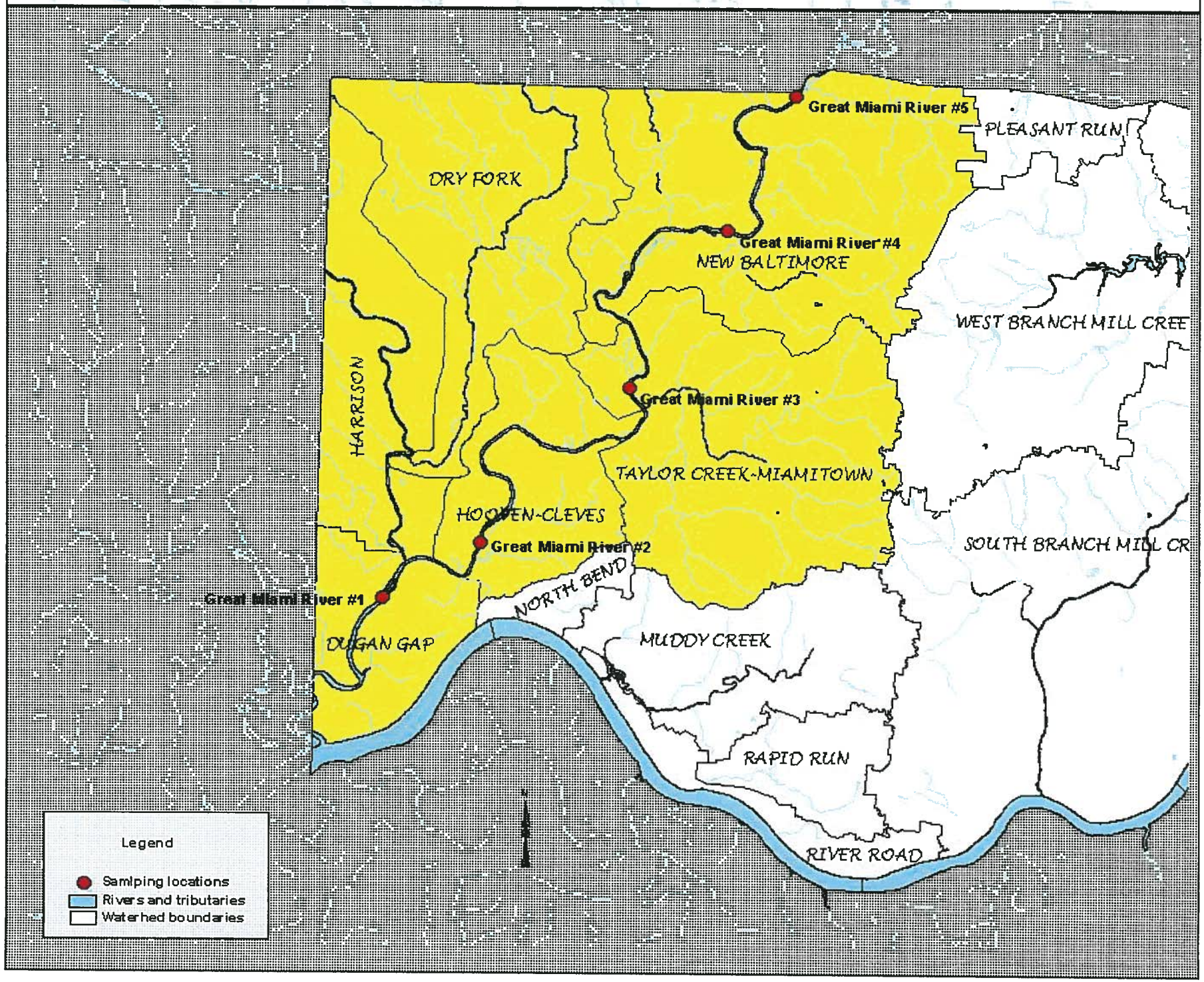
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



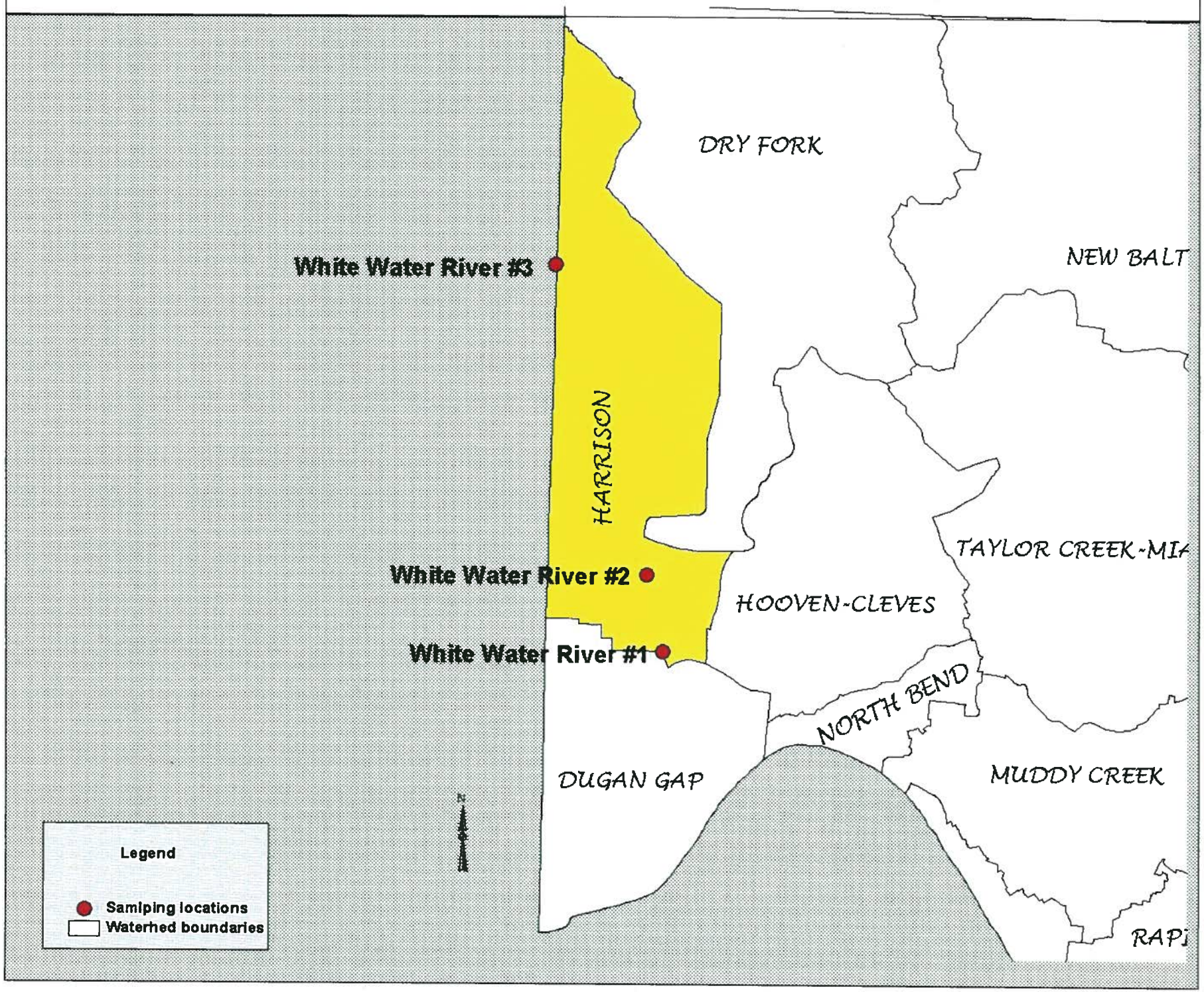
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



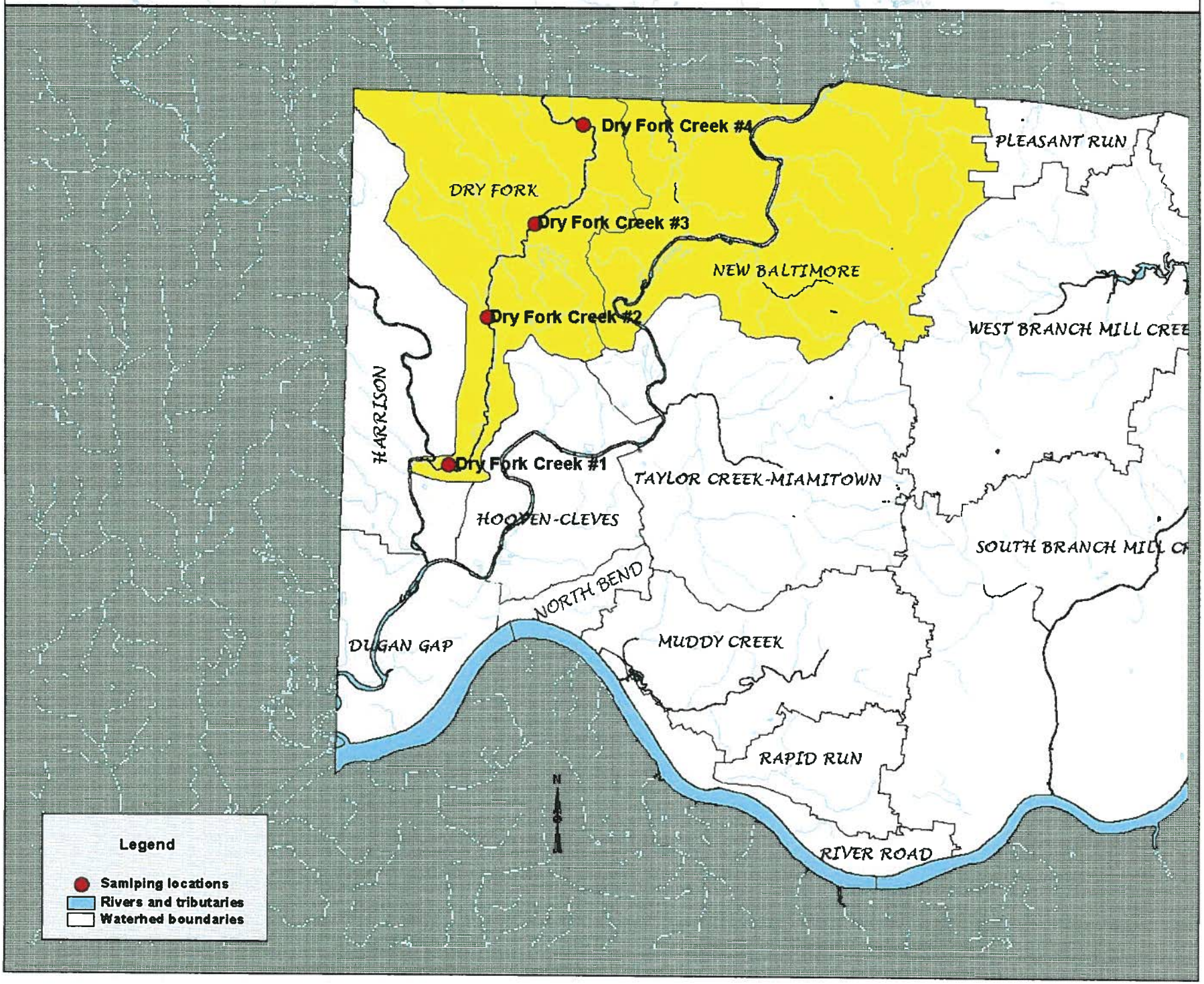
MSD/DIW SURFACE WATER SAMPLING LOCATIONS



MSD/DIW SURFACE WATER SAMPLING LOCATIONS



MSD/DIW SURFACE WATER SAMPLING LOCATIONS



APPENDIX H

Enforcement Response Plan

THE METROPOLITAN SEWER DISTRICT of Greater Cincinnati

ENFORCEMENT RESPONSE PLAN

EFFECTIVE DECEMBER 1, 1994

Pretreatment Program Enforcement Response Plan

Introduction

The Clean Water Act of 1977 has set forth basic requirements to regulate the nature and quantity of industrial wastes discharged to publicly owned treatment works; such legislation is found in 40 CFR part 403. The United States Environmental Protection Agency has revised part 403 pursuant to sections 307(b) and 402(b)(8) of the Act. The most recent revision to part 403 resulted in the promulgation of a final rule on July 24, 1990. Contained within part 403.8(f)(5) are a list of minimum requirements for the development of an Enforcement Response Plan (ERP).

The actions required of the Metropolitan Sewer District of Greater Cincinnati, as outlined in this document, are intended to satisfy the Ohio EPA requirement for the development of an ERP.

The principles of the Plan identified below describe a process to identify, document and respond to pretreatment violations in a timely and equitable manner consistent with relevant State and Federal law and with the legal authority contained in the Rules and Regulations.[1] The principles establish a framework for the management of enforcement matters and emphasize flexibility in controlling the overall operation.

The key principles of the Plan include:

a) Establishment of responsibilities, procedures and time-frames that provide information to all levels of the organization;

b) Maintenance of an accurate and complete industrial user inventory;

c) A systematic plan devised to inspect and sample industrial users;

d) Development of an enforcement response guide and compliance screening mechanism;

e) Performance of an enforcement evaluation where necessary;

---

[1] Where mentioned, "Rules and Regulations" shall refer to the Rules and Regulations Governing The Design, Construction, Maintenance, Operation And Use Of Sanitary and Combined Sewers In The Metropolitan Sewer District Of Greater Cincinnati, Hamilton County, Ohio and Issued by the Board of County Commissioners of Hamilton County, Ohio.

f) Institution of an enforcement action and follow-up where deemed appropriate.

Many of these principles have heretofore been incorporated into the District's existing approved pretreatment program. The goal of this Plan is to describe the manner in which the District enforces its pretreatment program in light of Federal legislation. The existing general pretreatment requirements are contained within the Rules and Regulations.

Industrial User Inventory

The District maintains a current inventory of its industrial users. The inventory consists of the industrial waste survey, baseline monitoring reports, periodic compliance reports, records of facility inspections, enforcement documentation and miscellaneous correspondence. The responsibility for maintenance of industrial user inventories has been assigned to specific pretreatment staff. The flow of information is organized to ensure that all relevant data is directed to the proper individual.

The control mechanism utilized by the District to monitor industrial user (IU) discharges is the Wastewater Discharge Permit, as provided for in Article XV of the Rules and Regulations. The Permits contain specific requirements for each industrial user concerning discharge limitations and reporting frequency.

In addition to industrial user self-monitoring, industrial users are monitored by the District. Significant Industrial Users (SIU) are inspected and monitored by the District at least one day per annum. Discretion will be exercised in determining whether sampling is necessary by District personnel for all other Users not in the significant industrial user category. Monitoring by the District is classified as scheduled, demand, unscheduled, additional or surcharge depending on the following criteria.

Scheduled Monitoring Undertaken to demonstrate continued compliance.

Demand Monitoring Intended to establish whether a violation(s) has been corrected once it has been detected. This may consist of one or more consecutive sampling days.

Unscheduled Monitoring Undertaken as a further check on industrial user compliance status.

Additional Monitoring Undertaken to aid in the assessment of Significant Industrial

User (SIU) status. Normally consists of grab samples taken on a given day.

Surcharge Monitoring Undertaken to develop surcharge billing costs.

Industrial User Self-monitoring Undertaken by the industrial user in fulfillment of federal, state and local pretreatment requirements.

The District then receives, evaluates and retains the data to ensure their availability when needed to make decisions on compliance activities, and, if necessary, as evidence in enforcement proceedings.

The District endeavors to inform the industrial users of changes in pretreatment requirements, results of inspections and other relevant information. The industrial users shall also be apprised of the enforcement principles outlined herein and the generalized responses to non-compliant episodes.

Pretreatment Staff

The Division of Industrial Waste comprises a staff to sample, analyze, and assure compliance of industrial waste discharges. Sampling is carried out for the division exclusive of industrial user self-monitoring. Its pretreatment responsibility lies chiefly in conducting the necessary sampling and field inspections.

The Division's Laboratory performs in-house analysis of the effluent samples. EPA-approved QC/QA procedures are employed.

Evaluation of compliance with the Wastewater Discharge Permit includes screening the analytical data to match applicable permit limits. Evidence of a violation is compiled at the investigator level. These individuals are then responsible for completing the initial notice of noncompliance covering the specific violation. The supervisor performs a cursory quality control check and then allows issuance. Level 1 notices of noncompliance, without proposed fines or penalties, are issued under the signature of the Superintendent of Industrial Waste; Enforcement actions with proposed fines or penalties require the Director's signature.

Compliance Review Process

The compliance review process includes review of all relevant data to screen out non-compliant industrial users for appropriate enforcement action.

The initial review confirms whether the discharge reports are submitted on time, encompasses the proper time period, are complete and properly signed. The secondary review assesses compliance with appropriate pretreatment standards (i.e. local or categorical) and any other information supplied by the industrial user in accordance with its Wastewater Discharge Permit.

To ensure a timely response the District will issue a form letter notice of noncompliance designated the NON. The NON is issued for all violations and forms the paper trail that is used to generate the quarterly Industrial User Violation Report; this report, which is updated frequently, is used for enforcement tracking and in assessing escalating enforcement.

Enforcement Evaluation

In general terms, the format used to enforce the Metropolitan Sewer District Rules and Regulations as they relate to pretreatment consists of the following:

a) All violations or permit occurrences outside limits disclosed by the District or industrial user monitoring are reviewed by appropriate staff;

b) The industrial user is notified by a form letter notice of noncompliance (NON) when an enforcement official becomes aware of a violation;

c) In the case of effluent violations, the industrial user is scheduled for demand monitoring. Generally, a facility inspection is also conducted;

d) Every notice of noncompliance requires the industrial user to take immediate action to prevent recurrence;

e) When necessary the notice of violation requires the industrial user to submit an explanation and/or plan to prevent recurrence;

f) The District will increase communications with the industrial user in response to violations. Additional inspections, meetings, and monitoring may be conducted;

g) If the violations persist or the explanation/plan submitted is inadequate, the District responds with escalating enforcement such as requiring commitments in the form of additional pretreatment equipment with a

construction plan/schedule;

h) The District will issue fines in accordance with the Rules and Regulations using a series of fine schedules and EPA guidance documents.

In more specific terms, the District uses a tiered response approach geared to a twelve month time cycle to enforce its pretreatment program. A first occurrence of a violation triggers the cycle and sets it in motion. Multiple occurrences within a twelve month period (not necessarily related to the same violation) carry an escalating form of enforcement and extend the cycle. After twelve months have elapsed from the most recent violation, the cycle concludes. Subsequent violations begin a new cycle. However, the District will consider the user's previous history dating back to five or more years in setting the initial response level at the beginning of each new cycle. A user's compliance history will be considered to determine whether any pattern or trend in violations exists. This information is to be used not only to aid in diagnosing the cause of the violation but also to assist in selecting enforcement options and in imposing fines and penalties.

It is recognized that some egregious or flagrant violations may warrant a response beyond Level 1 despite a first occurrence in twelve months. Depending on such factors as the number and severity of violations disclosed and impacts on human health and safety, the general enforcement levels are applied in accordance with the enforcement action tier.

Generally, the District will review industrial user reports within five days of receipt and for violations issue the form letter notice of noncompliance with in an additional seven days. Formal notices of violation will generally be issued within 30 days of the initial notice of noncompliance.

Follow-up compliance activities such as inspections and monitoring will generally begin within 30 to 45 days after the initial enforcement response is taken. Should these activities disclose continued noncompliance the District will escalate enforcement within 60 to 90 days.

The District is expected to diligently discharge these duties. Failure to serve any required notice in accordance with the time periods set forth herein shall not invalidate any proceeding or action of the District. However, any delay in issuing notices which causes an industrial user prejudice shall be considered in mitigation of any fine or other enforcement action of the District.

Pretreatment Program Enforcement Response Plan

Enforcement Action Tier

Frequency of Violation	Nature	Enforcement Action
First occurrence within twelve months	Moderate	Level 1
	Severe	Level 2
Second occurrence within twelve months	Moderate	Level 2
	Severe	Level 3
Chronic occurrence	Moderate	Level 3
	Severe	Level 4

Enforcement Action Characterization

Level 1 DIW issues a notice of noncompliance (NON) identifying the violation and its date of occurrence. It further requires a written response from the industrial user within 14 days of notification describing the cause of the violation and the corrective actions taken to prevent recurrence.

In order to monitor compliance, demand monitoring may be required. A follow-up investigation is conducted as necessary.

Level 2 A Compliance Attainment Meeting (CAM) is scheduled within which a Remedial Action Plan (RAP) or Interim Operating Procedures and Construction and Implementation Schedule (IOP/CIS) are developed within 30 days of the meeting. Included in the RAP as necessary will be increased self-monitoring and reporting; a Spill and Slug Control Plan (SSCP) within 30 days; Pretreatment system Operation and Maintenance/Standard Operating Procedures (SOP/O&M) within 60 days; and Pretreatment System Operator Training (POT) commitment within 60 days. Development of a Pollution Prevention Plan (PPP) at this level of enforcement may be required. Implementation of the plan may be required when it is a positive measure that protects environmental quality and is technically feasible. The Director has the discretion to modify this requirement to implement pollution prevention measures where the industrial user has demonstrated that the implementation will cause undue financial hardship and its proposed remedial

alternative will not harm the environment. The PPP will describe alternatives for reducing pollutants at the source through process or operational changes or any other means which permanently reduce the amount of contaminants to be disposed of into any environmental medium (e.g., whether through releases to the sewer system, air, ground, or surface water or any other method of discharge).

In order to monitor compliance, a follow-up investigation and monitoring event are conducted by DIW after a review of the adequacy of the RAP and/or IOP/CIS is made.

Level 3 Administrative Orders requiring any of the following: increased self-monitoring and reporting; Interim Operating Procedures and Construction and Implementation Schedule (IOP/CIS); selection or modification of pretreatment technology; prepare and submit a Permit-To-Install (PTI) application; development of and implementation of Pollution Prevention Plan (PPP); a temporary cease and desist order.

In order to monitor compliance, a follow-up investigation and monitoring event are conducted by DIW after a review of the adequacy of the RAP and/or IOP/CIS is made.

Level 4 Issuance of orders to cease and desist, revoke permit to discharge or terminate service, or refer to City Solicitor.

Enforcement Response Guide

One of the minimum criteria set forth in 40 CFR 403.8 (f)(5) is a description of all anticipated types of industrial user violations, the prescribed form of enforcement to be taken and the time-frame within which the industrial user is required to respond. A predetermination of all types of violations is clearly not possible; however, a range of responses have been developed for the more common occurrences. Violations that occur but which are not contained in the Guide will be responded to on a case-by-case basis.

For the determination of the level of response necessary for a given violation or an occurrence outside permit limitations the District will carefully consider the number of occurrences in the current cycle and the Industrial User's history dating back five or more years, the number and severity of violations per occurrence and impacts on human health and physical structures, the presence of pretreatment technology and its adequacy for compliance, and the level of cooperation exhibited by the industrial user. The District's goal is ongoing compliance with all Rules and Regulations. To achieve this goal it is necessary

to be flexible, yet even-handed in the implementation of the Guide, in a manner consistent with the Rules and Regulations, such that the resolution of any form of noncompliance is expedient and decisive.

Table 1 presents the Enforcement Response Guide for the Metropolitan Sewer District of Greater Cincinnati. The Guide incorporates the tiered approach to enforcement and all provisions set forth in the Rules and Regulations.

As noted in the Enforcement Response Guide, there are four (4) basic levels of response. In general, Level 1 means that the discharger has no prior violations during the preceding year; Level 2 means that prior violations have occurred but that the discharger is working cooperatively with the District in complying with regulations; Level 3 implies a lack of good faith efforts by the discharger and escalating enforcement by the District; Level 4 means a failure to address the issues in the informal administrative process.

Escalation from Level 1 to Level 2 is automatic when a second violation occurs within twelve months of a previous violation. The step from Level 2 to Level 3 is made when the remedial actions taken or proposed by the industrial user are deemed by the District to be inadequate or inappropriate and the industrial user appears unwilling to fully resolve the issue. The District will consider factors such as threat to human health, potential damage to environment by interference or pass-through, damage to the sewer system, the duration, type and severity of noncompliance, deterrence, and additional costs to the District in determining the adequacy or appropriateness of the enforcement actions. Level 3 actions by the District will generally be taken unilaterally. For example, the District may issue a temporary cease and desist order to the industrial user pending implementation of interim operating procedures or until installation of pretreatment technology. Level 4 actions may be taken upon consultation with the City Solicitor.

Where pretreatment equipment is to be installed, the District will coordinate with other agencies in order to track and discourage cross media shift; for example, an air permit with The Hamilton County Department of Environmental Services or a Permit-to-Install with the Ohio EPA.

Pollution Prevention

The District is developing a pollution prevention program. Reducing pollution at its source is the preferable method of obtaining compliance with effluent limitations. The District will assist the industrial user with technology transfer and other available means to reduce, at the source, pollutants in the user's process operations.

A strong preference will be given to remedial alternatives which achieve compliance through pollution prevention by means of source reduction. However, the shifting of emissions from one environmental medium to a different environmental medium in order to achieve compliance may be considered as an acceptable alternative only after all other processes have been investigated. A user will not be allowed to achieve wastewater compliance by causing a violation of any other environmental law.

Compliance Schedule Policy

In certain cases the District may negotiate with an Industrial User regarding occurrences outside of permitted limitations when the following circumstances apply:

a) The Industrial User has agreed to construct a pretreatment facility, place it in operation and achieve compliance with all of the following: the industrial user's wastewater discharge permit; the Metropolitan Sewer District Rules and Regulations; Chapter 6111 of the Ohio Revised Code; Ohio Administrative Code 3745-3-12; and the General Pretreatment Regulations 40 CFR 403 and Subchapter N as may be amended; and such other laws, rules and regulations that may apply; and

b) Where the Industrial User has demonstrated that the occurrences outside limitations do not pose a threat of pollution to the environment and/or jeopardize health, safety, welfare, and property; and

c) Where the Industrial User has demonstrated that the occurrences outside limitations, do not pose a threat of interference and pass through or damage to the POTW; and

d) Where no Alternative Interim Measures are available to reduce the discharges below permit limits. In such event, the agreement negotiated will include Alternative Interim Measures which minimize the amount by which the discharges exceed permit limits; and

e) Where the Industrial User has agreed to pay an assessment based on an economic benefit analysis.

The agreement negotiated shall include the Industrial User's adoption of Alternative Interim Measures to prevent or minimize the exceeding of limitations during the interim period.

The District and the Industrial User may agree upon a fine schedule for the interim occurrences outside limitations. The agreement shall include a time frame for the following: completion of a treatability study of the Industrial User's wastewater; selection of pretreatment technology; completion of pretreatment specifications; submission of a complete application for a permit to install including detailed plans and specifications for the installation of pretreatment facilities to the Ohio EPA; submission of purchase orders for the approved pretreatment equipment; beginning date for construction; date for completion of construction; and date for demonstration of compliance to the District.

Prior to entering into a compliance schedule which allows the discharge of contaminants beyond permit limits, the District will consider Alternative Interim Measures. These Alternative Interim Measures are temporary measures which reduce discharges into the sewer system below permits limits pending the implementation of the final remedy, such as the construction of a pretreatment facility.

Such Alternative Interim Measures may include temporary process or operational changes, or temporary volume reduction (i.e. reduction in production output). Such measures may also include off-site disposal or on-site holding or a temporary alternative pretreatment operation. Measures that involve media shifting will be discouraged and a preference will be given to measures which involve pollution prevention.

Cost Recovery

The user will be held liable for cleanup costs and/or damages resulting from discharges in violation of District limitations. These costs will be derived separate and distinct from imposed fines and are generally the actual cost of cleanup and/or repair/replacement.

In addition, a non-compliant user may be assessed the cost for increased inspection and monitoring events required by the District to evaluate the users's return to compliance.

Economic benefit of noncompliance may be assessed separate and distinct from imposed fines. The District will refer to State and Federal guidelines such as EPA's Guidance Manual for POTWs to Calculate the Economic Benefit of Noncompliance.

Significant Noncompliance

The "significant noncompliance (SNC)" concept shall also be utilized to set priorities for enforcement response. Article XV, Section 1512 contains a provision to publish the names of industrial users found in significant noncompliance with the Rules and Regulations

during the previous twelve (12) months. The term "significant noncompliance" applies to an industrial user meeting at least one of the following criteria:

Chronic violations of the Wastewater Discharge Permit as described in the Rules and Regulations; Technical Review Criteria (TRC) violations as described in the Rules and Regulations; Any other violation that the District believes has caused interference or pass-through phenomena; or has caused eminent endangerment to human health/welfare; d)Violations of construction and/or implementation schedule milestones contained in administrative orders; Failure to provide reports in the allotted time; Failure to accurately report noncompliance.

More severe enforcement actions will be taken against industrial users that frequently exceed pretreatment requirements as opposed to those that report isolated violations. In any case, if compliance is not achieved, escalated forms of enforcement will be taken to attain compliance in a timely fashion.

Fine Schedule

Monetary penalties will also be used as part of the enforcement program. USEPA guidance offers four criteria that will be reviewed before penalties are assessed:

a) Recover the cost to the District of the noncompliance.

b) Size penalty to deter future incidence of noncompliance.

c) Maintain a program of fairness, equity and consistency.

d) Provide a logical and systematic basis for penalty calculation.

To implement the recommended criteria in setting penalties the District has developed a series of fine schedules to use as a guide for establishing proposed penalties. These schedules are presented in the following tables.

Occurrences Outside Permit Concentration Limits - TABLE 2 This fine schedule is used to determine fines for violation of effluent limits. The fines increase as the percentage over the limit increases and as the facility wastewater flow increases. The schedule includes an adjustment for history of violations which directly relates to the enforcement level determined by the District. (Flow values used in this table are long term average total facility flows certified by the user and generally obtained through the wastewater discharge

permit process.)

Occurrences Outside Continuous pH Periods - TABLE 3 Discharge to the wastewater treatment system of wastewater in violation of Section 1518 (F) of MSD's Rules and Regulations (R&R) shall be subject to penalties for pH ranges and periods of flow as set forth in Table 3. Each occurrence for a range and period listed in Table 3 shall be a separate violation so long as the period for that occurrence contains no element of time in common with the period for any other occurrence charged as a violation in accordance with the standards of Table 3.

Occurrences Outside pH Excursion Limits - TABLE 4 Discharge to the wastewater treatment system of wastewater in violation of Section 1518 (F) of MSD's R&R shall be subject to penalties for pH excursion levels and frequencies of excursions greater than the frequencies set forth in Table 4. Excursion shall mean an occurrence wherein a wastewater pH changes in magnitude from a value within or closer to the range of 6.0 to 10.0 Standard Units to a value outside or further from that range, whether toward a lower pH or a higher pH. The frequency of excursion shall mean the number of excursions in any interval of eight consecutive hours. Violations of the standards for excursion set forth in Table 4 shall be cumulative even if containing common elements of time.

Late Report Filing - TABLE 5 These enforcement responses are applicable for late or incomplete filing of routine required reports (e.g., monitoring, permit application, permit renewals, etc.). Required enforcement reports (e.g., RAP, SSCP, SOP, POT, monthly progress or monitoring reports, IOP, CIS, etc.) that are late or incomplete, will accrue penalties from due date.

Other Violations - TABLE 6 As a number of other violations may be committed which warrant a fine but which cannot be easily quantified in a fine schedule this table is a guide to the District in setting fine levels based on deviation and seriousness.

Wastewater Discharge Permits

Wastewater Discharge Permits are issued to a specific User for specific operations, at a specific premise. A Wastewater Discharge Permit shall not be reassigned or transferred or sold to another owner, another User or different premises. A Wastewater Discharge Permit shall not be transferred to a new or significantly changed operation.

Pretreatment Program Enforcement Response Plan

TABLE 1
Enforcement Response Guide

I. SAMPLING, MONITORING & REPORTING VIOLATIONS

1. Noncompliance Item: Reporting Violation

a.	Circumstance:	Routine report improperly signed/certified
	Action:	Level 1
	Specific Response:	Phone call/documentation to file (IU Response due in 2 weeks)
b.	Circumstance:	Routine report improperly signed/certified after notification by District
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)
c.	Circumstance:	Late submittal of routine report (less than or equal to 5 days)
	Action:	Level 1
	Specific Response:	NON, DIW issues telephone warning (IU Response due immediately)
d.	Circumstance:	Late submittal of routine report (greater than 5 days but less than 30 days)
	Action:	Level 2
	Specific Response:	NOV issued, IU informed of possible fines (IU response due immediately)
e.	Circumstance:	Late submittal of routine report (greater than 30 days)
	Action:	Level 3
	Specific Response:	NOV with fines of $100/day beginning with day 31 and accumulating until the report is received up to a maximum fine of $2,000 per late report. (IU response due immediately)
f.	Circumstance:	Incomplete submittal of routine report
	Action:	Level 1
	Specific Response:	Phone call/NOV (IU Response due in 2 weeks)

TABLE 1 (continued)
Enforcement Response Guide

g.	Circumstance:	Failure to submit any required report
	Action:	Level 3/4
	Specific Response:	NOV/AO and/or fine subject to hearing (IU Response due in 30 days)
h.	Circumstance:	Failure to report spill or permit violation - no impact
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)
i.	Circumstance:	Failure to report spill or permit violation - impact present
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
j.	Circumstance:	Failure to report changed discharge - no impact
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)
k.	Circumstance:	Failure to report changed discharge - impact present
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
l.	Circumstance:	Falsification of documentation
	Action:	Level 4
	Specific Response:	Referral to City Solicitor
m.	Circumstance:	Late submittal of required enforcement report
	Action:	Level 3
	Specific Response:	NOV with fines of $100/day beginning with day 1 and continuing until date report received up to a maximum of $2,000 per late report.
n.	Circumstance:	Failure to provide telephone notice within 24 hour of knowledge of a self monitoring violation.
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)

TABLE 1 (continued)
Enforcement Response Guide

2. Noncompliance Item: Monitoring Violation

a.	Circumstance:	Failure to monitor all pollutants required by discharge permit
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 30 days)
b.	Circumstance:	Failure to install monitoring equipment within specified time
	Action:	Level 3/4
	Specific Response:	NOV/AO and/or fine subject to hearing (IU Response due in 30 days)
c.	Circumstance:	Failure to maintain monitoring equipment
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
d.	Circumstance:	Denial of access
	Action:	Level 3/4
	Specific Response:	NOV/AO and/or fine subject to hearing Obtain search warrant

3. Noncompliance Item: Sampling/Analytical Violation

a.	Circumstance:	Improper sampling location
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)
b.	Circumstance:	Improper analytical methods
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 2 weeks)

II. PERMIT VIOLATIONS

1. Noncompliance Item: Exceeding Permit Effluent Limits

a.	Circumstance:	First occurrence - no impact
	Action:	Level 1
	Specific Response:	NOV requiring a return to compliance

TABLE 1 (continued)
Enforcement Response Guide

b.	Circumstance:	First occurrence - impact present
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
c.	Circumstance:	More than one occurrence in twelve month cycle
	Action:	Level 2/3/4
	Specific Response:	Dependent upon number of occurrences and their impact

2. Noncompliance Item: Dilution Of Wastestream As Substitute For Pretreatment

a.	Circumstance:	Willful or otherwise
	Action:	Level 3/4
	Specific	Response: NOV/fine subject to hearing/AO or referral to Solicitor (IU Response due in 30 days)

3. Noncompliance Item: Failure To Operate And Maintain Pretreatment Facilities

a.	Circumstance:	Willful or otherwise
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

4. Noncompliance Item: Violation Of Compliance Schedules

a.	Circumstance:	Late progress report (greater than 30 days)
	Action:	Level 3
	Specific Response:	NOV with fines of $100/day beginning with day 1 and continuing until date report received up to a maximum of $2,000 per late report.

5. Noncompliance Item: Violation of Periodic Reporting Requirements

a.	Circumstance:	Report interval exceeds 9 months
	Action:	Level 2
	Specific Response:	NOV/CAM (IU Response due in 30 days)
b.	Circumstance:	Late permit application
	Action:	Level 1
	Specific Response:	Phone call/documentation to file (IU Response due in 1 week)

TABLE 1 (continued)
Enforcement Response Guide

III. UNAUTHORIZED DISCHARGE:

1. Noncompliance Item: Discharge Prohibitions

a.	Circumstance:	No impact
	Action:	Level 1
	Specific Response:	NOV requiring a return to compliance
b.	Circumstance:	Impact present
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

2. Noncompliance Item: Expired Permit

a.	Circumstance:	Willful or negligent
	Action:	Level 1/2
	Specific Response:	NOV/Phone call (IU Response due in 2 weeks)

3. Noncompliance Item: Unauthorized bypass

a.	Circumstance:	Violates permit limits
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
b.	Circumstance:	Failure to notify District - no impact
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
c.	Circumstance:	Failure to notify District - impact present
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

4. Noncompliance Item: Slug load or accidental discharge

a.	Circumstance:	Failure to notify District - no impact
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

TABLE 1 (continued)
Enforcement Response Guide

b.	Circumstance:	Failure to notify District - impact present
	Action:	Level 3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

5. Noncompliance Item: Operating Upset

a.	Circumstance:	Failure to notify District - no impact
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
b.	Circumstance:	Failure to notify District - impact present
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

IV. VIOLATIONS DETECTED DURING SITE VISITATION:

1. Noncompliance Item: Illegal Discharge

a.	Circumstance:	Failure to notify District - no impact
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
b.	Circumstance:	Failure to notify District - impact present
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

2. Noncompliance Item: Access to Records

a.	Circumstance:	IU refusal
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due 30 days)

TABLE 1 (continued)
Enforcement Response Guide

3. Noncompliance Item: Accidental Discharge

a.	Circumstance:	Failure to notify District - no impact
	Action:	Level 2/3
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
b.	Circumstance:	Failure to notify District - impact present
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)
c.	Circumstance:	Causes interference/pass-through
	Action:	Level 2/3/4
	Specific Response:	NOV/CAM/AO and/or fine subject to hearing (IU Response due in 30 days)

Note: ... In certain non-compliant episodes where a POTW response may come from a choice of Action Levels (i.e. Level 2/3/4), the industrial user Response time given pertains to the highest Action Level taken. The District reserves the right to require industrial users to respond more quickly in the event of an emergency or during other such times as the District deems necessary. the District Rules and Regulations confer on the industrial user certain rights which authorize specific response times.

TABLE 2
Fine Schedule:
Occurrences Exceeding Permit Concentration Limits

Evaluation Criteria	Value	Fine Amount
A. Magnitude of Occurrence		
0% to 20% over limit	$0 to 100[a]	
21% to 50% over limit	100	
51% to 100% over limit	200	
101% to 200% over limit	400	
201% to 300% over limit	600	
301% to 400% over limit	800	
401% or more over limit	1,000	
B. Volume of Discharge (gpd)		
10,000 of less	$200	
10,001 to 50,000	500	
50,001 to 250,000	1,000	
250,001 to 500,000	2,000	
500,001 to 1,000,000	3,000	
Over 1,000,000	4,000	
Subtotal - Base Fine		
C. Adjustment for History of Violations	Base fine multiplier	
Level 1[b]	1	
Level 2[b]	1.5	
Level 3[b]	2	
Total Fine		

[a] Use zero for single grab or daily composite sample; use $100 if occurrence is computed from average of two or more samples.
[b] Refers to Enforcement Action Tier in the District's Enforcement Response Plan.

TABLE 3
Fine Schedule:
Occurrences Exceeding Continuous pH Periods

pH Range Standard Units	Continuous Period of Flow Minutes	Penalty Dollars
Less than 6.0	60	100
Less than 5.0	30	200
Less than 4.0	15	300
Less than 3.0	10	400
Less than 2.0	3	500
More than 10.0	120	100
More than 11.0	45	200
More than 12.0	15	300
More than 13.0	10	400

TABLE 4
Fine Schedule:
Occurrences Exceeding pH Excursion Limits

pH Excursion Level Standard Units	Allowable Frequency of Excursion Events in 8 Hours *	Penalty Dollars
Less than 6.0	No Limit	0
Less than 5.0	6	200
Less than 4.0	4	300
Less than 3.0	3	400
Less than 2.0	2	500
More than 10.0	No Limit	0
More than 11.0	4	200
More than 12.0	3	300
More than 13.0	2	400

TABLE 5
Fine Schedule:
Late Report Filing

Nature of Violation	Action
Level 1. Report late 1-5 days	Notice of Noncompliance issued
Level 2. Report late 6-30 days	Notice of Violation issued
Level 3. Report late 31+ days	Notice of Violation with fines of $100/day beginning with day 31 and continuing until date report received up to a maximum of $2,000 per late report.

TABLE 6
Fine Schedule:
Other Violations

Potential For Harm	Extent of Deviation		
	Major	Significant	Minor
Major	$10,000	$7,000	$4,000
Significant	6,000	3,500	1,500
Minor	2,000	1,200	300

APPENDIX I

Environmental Enhancement Action (EEA) Policy

ENVIRONMENTAL ENHANCEMENT ACTION

ENVIRONMENTAL ENHANCEMENT ACTION POLICY

Background

The Metropolitan Sewer District's (MSD), Division of Industrial Waste (DIW) is responsible for implementation of a Pretreatment Program. This program includes inspecting and sampling industrial users, reviewing monitoring results to determine compliance status, and taking enforcement actions. As required by the National Pretreatment Program, the Division of Industrial Waste developed an Enforcement Response Plan (ERP) in 1986. The ERP describes the process used by the District to identify, document, and respond to pretreatment violations in a timely and equitable manner as required by State, Federal, and local laws. In 1994, the District's Enforcement Response Plan was revised. The final approval was given by the Hamilton County Board of County Commissioners on July 13, 1994 and the document was given an effective date of December 1, 1994. A series of training seminars were provided for all Industrial Users in October and November of 1994. The full implementation of the revised ERP began December 1, 1994. Industrial Users under enforcement at the time were fazed into the new ERP tiered system.

The new ERP greatly enhanced opportunities to communicate between the IU and DIW concerning compliance issues. This is accomplished by requiring Compliance Attainment Meetings (CAM) be held and increasing inspections in response to enforcement. This increased communication has resulted in compliant discharges, greater accuracy in monitoring, protection against spills and implementation of pollution prevention measures by many. This plan and supporting policies developed to follow its guidance work well for the majority of our enforcement cases.

Prior to the development and implementation of the revised ERP, the potential problem an emphasis on fines and penalties alone would present and its impact on our primary goal was identified. Therefore a policy that would provide an impetus to insure compliance for the "long term" was needed. The ERP establishes the procedure to be used to determine fines and penalties to be assessed for violations of the conditions of the Pretreatment Program. It also allows for the use of innovation and creative solutions to environmental problems. As a result of the implementation of the revised ERP, MSD, DIW also developed the Environmental Enhancement Action (EEA) policy.

DIW's Environmental Enhancement Action policy uses, as its foundation, the USEPA's Supplemental Environmental Projects (SEP) policy. This allows for environmentally beneficial projects or activities that improve, protect or reduce risks to public health or the environment that are undertaken by the offending IU to be considered in settlement of enforcement actions to offset monetary penalties proposed by the DIW. The USEPA's SEP policy originally published in February 1991 was revised as of May 1, 1998. With this revision DIW's policy was also revised.

Procedure

As administered by the DIW, once a company reaches the ERP level that requires a fine, (In accordance with the ERP, a company is not fined on the first violation unless it is a reporting violation.) representatives are required to attend a Compliance Attainment Meeting (CAM). The purpose of this meeting is to identify the violation and begin to take steps to address and

eliminate the cause of the violations. Once these actions have been identified, an Administrative Order is issued that specifies the portion of the total fine amount that is to be paid immediately, a compliance schedule, and any other SEP projects that must be completed. The remaining portion of the fine is held in abeyance until the project/projects are completed. In many cases, the elimination of the violations is not a quick or inexpensive solution. Fines and penalties may be added during this time if violations continue to occur. The user is required to implement measures that will minimize these occurrences while identifying a strategy for "long term compliance." The user may be required to bear the cost of a study and installation of pretreatment equipment, additional monitoring (by MSD or self), study and implementation of pollution prevention practices, and/or funding an environmental project. Additionally, a user must demonstrate compliance after implementation of the solution. Once the installation or project has been completed, documentation of the costs incurred by the user must be submitted. In determining the final amount to be paid, the costs incurred as well as the length of time it took the company to become complaint is taken into consideration. The attached chart provides a description of the procedure followed when an enforcement action results in allowing for an EEA.

ENVIRONMENTAL ENHANCEMENT ACTION

ENVIRONMENTAL ENFORCEMENT ACTION

MSD LETTERS	NON/NONs	**NOV/CAM**	NON/**NOV/A0**	NON/**NOV**	NON/**NOV**	NON/**NOV**	NON/**NOV**
FINES ASSESSED			25%	25%	50%	75%	100%
FINES HELD			75%	75%	50%	25%	0%
ENFORCEMENT TIME			0 MONTHS	>>>>>>>>>	12 MONTHS	18 MONTHS	>24 MONTHS **level 3

Once CS and items of the Order are complete, total remaining fines and make decision on what to assess according to expenses for compliance projects (assess 25% and evaluate 75%)

* If the length of AOs exceeds 12 months, heavier penalties may be sought.

* If like violations occur that should be resolved by the IU's existing AO/CSA then these would require no separate enforcement document but would proceed as part of the current Order, fines being assessed with that document timeline. However, if violations not related or resolved by current actions then a separate CSA would need to be agreed on and attached to the existing Order.

* MSD must be able to justify actions taken to offset fines. Inspections, files that identify costs for compliance items, and cost summaries from the IU as documentation of actions implemented which may include but are not limited to, purchase orders and invoices will be required prior to termination of the order.

* EEAs offset a maximum of 75% of the proposed fines. MSD may term these projects EEAs-Environmental Enhancement Actions. . Examples of EEAs are P2, Pretreatment, Audits (IAMS, consultant, internal), monitoring, construction/modification of a sample location.

** At ERP Level 3 MSD may examine the benefit of non-compliance

* The timeline for enforcement actions shall be explained in the CAM. Conditions pertaining to escalated enforcement actions are included in the Administrative Order.

APPENDIX J

Sampling/Field Investigation Capabilities

SURVEILLANCE CAPABILITY OF DIW

600, 700 ,800 SERIES SAMPLERS CAN BE USED FOR TREATMENT PLANTS AND SOME INDUSTERIAL USERS THAT REQUIRE A SIMPLE SET UP

600 5 AVAILABLE
700 1 AVAILABLE
800 11 AVAILABLE
800 7 AVAILABLE (STORM WATER SAMPLERS)

900 MAX SAMLPERS ARE USED FOR THE MORE INTERCATE SET UPS. THEY HAVE THE CAPABILITY TO DOWN LOAD THEIR DATA. THEY CAN MONITOR FLOW, PH, RAIN GAUGE ,AND SAMPLE .

900 MAX 10 AVAILABLE COMPOSIT,DISCRETE,PH/ORP,FLOW.
900 MAX 12 AVAILABLE COMPOSIT, DISCRETE, PH/ORP, FLOW, RAIN GUAGE

81002 SERIES BUBBLER FLOW METERS CAN ONLY BE USED FOR FLOW MEASUREMENT AND INITIATING A SAMPLER TO SAMPLE

81002 8 AVAILABLE

950 THIS BUBBLER FLOW METERS CAN ALSO MONITOR FOR Ph/ORP,TEMP, TRACK A RAIN GAUGE AND INITIATE A SIGNAL TO A SAMPLER TO TAKE SAMPLES.

950 15 BUBBLER , FLOW, PH
13 BUBBLER, FLOW, PH, RAIN GAUGE

STREAM MONITORING & SPECIAL STUDIES

960 FLOW METERS HAVE BUBBLER, AREA VOLICITY,ULTRA SONIC, MEASUREMENT. THEY CAN MONITOR FOR pH/ORP,TEMPATURE ,DISOLVED OXYGEN/CONDUCTIVITY, AND TRACK A RAIN GAUGE. THEY ALSO HAVE A MODEM WITH PHONE AND CAN BE PLACED AT A HAZERDOUS LOCATION AND BE MONITORED IN REAL TIME AT A REMOTE LOCATION USING COMPUTER LINKS

960 5 AVAILABLE with PHONES

DATASONDE 4/ MINISOND
HYDRO LABS ARE USED TO MONITOR RECEIVING STREAMS FOR PH ,DO TURBIDITY,TEMPATURE AND CONDUCTIVITY

MODEL 4 1 AVAILABLE

YSI MODEL 50 DISOLVED OXYGEN METER DO TESTING

50 MODEL 1 AVAILABLE

ORION MODEL 115 CONDUCTIVITY METER CONDUCTIVITY TEST

115 1 AVAILABLE

GX-86, STM2100,AND TMX412 GAS METERS ARE USED TO MONITOR FOR ,LEL, O2, H2S, CO. NOT ONLY ARE THEASE USED FOR CONFINED SPACE, THEY LET THE USER KNOW IF THEY MOVE INTO A DANGEROUS ATMOSPHERE OR IF THR ATMOSPHERE CHANGE S AT ANY LOCATION. SOME (STM2100) ARE USED TO MONITOR ATMOSPHERES IN SEWWERS OVER A PERIOD OF TIME, DATA CAN BE DOWN LOADED TO A COMPUTOR

GX-86 9 AVAILABLE

STM2100 4 AVAILABLE

TMX412 4 AVAILABLE

APPENDIX K

Analytical Capabilities

Metropolitan Sewer District
Division of Industrial Waste – Laboratory Section
Waste Water Analyses

Analysis

Alkalinity
Ammonia
Chromium hexavalent
Carbonaceous Oxygen Demand (COD)
Biochemical Oxygen Demand (BOD)
Cyanide, total
Cyanide, free
Cyanide, amendable
Fecal
Hardness
Metals
  Mercury
Metals GFAA
  Arsenic
  Selenium
  Lead
  Thallium
Metals ICP
  Cadmium
  Chromium
  Copper
  Nickel
  Lead
  Zinc
  Silver
  Barium
  Beryllium
  Cobalt
  Manganese
  Antimony
  Selenium
  Thallium
  Iron
  Aluminum
  Magnesium
  Arsenic
Nitrate
Nitrite
Oil & Grease
Volatile Organics (624)
  Bromochloromethane
  Chloromethane
  Vinyl Chloride
  Bromomethane
  Chloroethane
  Trichlorofluoromethane
  Acrolein

1,1-Dichloroethene
Acrylonitrile
Methylene Chloride
Trans-1,2-Dichloroethene
1,1-Dichloroethane
Chloroform
2-Bromo,1-Chloropropane
1,2-Dichloroethane
1,1,1-Trichloroethane
Carbon Tetrachloride
Benzene
Trichloroethene
2-Chloroethylvinylether
1,2-Dichloropropane
Bromodichloromethane
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Dibromochloromethane
Bromoform
1,4-Dichlorobutane
Tetrachloroethene
1,1,2,2-Tetrachloroethane
Toluene
Chlorobenzene
Ethylbenzene
Bromofluorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene

Semi-Volatiles (BNA 624)

n-Nitrosodimethylamine
2-Fluorophenol
Phenol
Bis(2-chloroethyl)ether
2-Chlorophenol
Bis(2-chloroisopropyl)ether
n-Nitrosodi-n-propylamine
Hexachloroethane
Naphthalene
Nitrobenzene
Isophorone
Decafluorobiphenyl
2-Nitrophenol
2,4-Dimethylphenol
Bis(2-chloroethoxyl)methane
2,4-Dichlorophenol
1,2,4-Trichlorobenzene
1-Fluoronaphthalene

Hexachlorobutadiene
4-Chloro-3-methylphenol
Hexachlorocyclopentadiene
2,4,6-Trichlorophenol
2-Chloronaphthalene
Dimethyl phthalate
Acenaphthylene
2,6-Dinitrotoluene
Acenaphthene
2,4-Dinitrophenol
4-Nitrotophenol
2,4-Dinitrotoluene
Diethyl phthalate
4-Chlorophenyl phenyl ether
Fluorene
4,6-Dinitro-o-cresol
n-Nitrosodiphenylamine
1,2-Diphenylhydrazine
2,4,6-Tribromophenol
4-Bromophenyl phenyl ether
Hexachlorobenzene
Pentachlorophenol
Phenanthrene
Anthracene
Di-n-butyl phthalate
Fluoranthene
Benzidine
Pyrene
Butyl benzyl phthalate
3,3'-Dichlorobenzidine
Benzo(a)anthracene
Chrysene
Bis(2-ethylhexyl)phthalate
Di-n-octyl phthalate
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Indeno(1,2,3-cd)pyrene
Dibenzo(ghi)perylene
Dibenzo(a,h)anthracene

Pesticides/PCB

Aldrin
Dieldrin
Chlordane
4,4'-DDT
4,4'DDE
4,4'DDD
alpha endosulfan

- beta endosulfan
- endosulfan sulfate
- Endrin
- Endrin aldehyde
- Heptachlor
- Heptachlor epoxide
- alpha BHC
- Beta BHC
- Lindane (gamma BHC)
- Delta BHC
- PCB-1242
- PCB-1254
- PCB-1221
- PCB-1232
- PCB-1248
- PCB-1260
- PCB-1016
- Toxaphene
- Methoxychlor

PH
Solids
TKN
TKP
Volatile solids
Vapor Space Organics

Laboratory Information Management System (LIMS)

DIW has a laboratory Information Management System (LIMS) for tracking and managing its analytical data. The LIMS system is a personal computer based system and operates on a 32-bit client/server network. It has a windows based operating system on an Oracle database. The LIMS is installed on our LAN and have the potential for installation on a wide area network (WAN) linking two or more sites.

The system provides multilevel security on the LIMS as well as network security. This ensures that the data is secure and any changes are traceable. Samples can be logged into the LIMS using self-generated bar code labels. Samples may be logged in individually or as a group.

Each client is given a unique location identifier that includes testing required, invoice information (where required), maximum holding times, and location description. Each location code has upper and lower warning limits and target results. These specifications are checked each time a sample result for that location is entered or validated. Results that exceed the limits are immediately color coded on the screen.

Quality assurance package attached to the LIMS allows for statistical charts to be generated for all the QA parameters. The LIMS also has the capability to chart the results of individual parameters and to display and print the results immediately.

Reports maybe generated in Access, Excel, Word or any third party software package. The report can be exported to other programs or to the e-mail system.

The system has a project management component and an Industrial Pretreatment module. These modules allow tracking our industrial clients and issuing notice of violation to the managers. At present this module is not used. Pretreatment information is maintained in a separate database.

PREFACE

M.S.D.LAB. believes that the commitment of all within its organization to a comprehensive Quality Assurance Program Plan is a necessity to meet the objectives of this analytical laboratory. The following Laboratory Quality Management Plan is an embodiment of the current practices of quality assurance/quality control at M.S.D.LAB. The in-house quality assurance program is aimed at the production of data of known quality and integrity, while sustaining a minimum loss of data due to out-of-control conditions.

Each laboratory section is responsible for keeping an updated version of Standard Operating Procedures (SOP) applicable to that section. To ensure continuity of analysis throughout the laboratory, specifics in the areas such as sample handling, instrument calibration, quality control measures, injection technique, data acquisition, data processing, and autosampler procedures are thoroughly explained in each SOP. Following the guidelines stated in SOPs, M.S.D. obligations and method specifications can be met.

The practices of quality assurance/quality control presented in the following text are set forth as minimums, and any additional measures that M.S.D. requires can be incorporated into the quality assurance/quality control project plan. The minimums set forth should be considered, as such, minimums.

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