

United States and State of Indiana v. City of Fort Wayne, Indiana

Consent Decree
Appendix 1

Combined Sewer System Operational Plan

CITY OF FORT WAYNE
DIVISION OF UTILITIES

AMENDED COMBINED SEWER SYSTEM OPERATIONAL PLAN

DECEMBER 2007



CSO OPERATIONAL PLAN

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
INTRODUCTION	INTRO-1
<u>1.0 PROPER OPERATION AND REGULAR MAINTENANCE PROGRAMS</u>	1-1
1.1 OVERVIEW	1-1
1.2 IMPLEMENTATION OF THE EXISTING O&M PLAN	1-1
1.2.1 Organizational Structure	1-1
1.2.2 Budget	1-1
1.2.3 Critical Facilities	1-2
1.2.4 Procedures for Maintenance (Routine and Non-Routine) and Emergency Situations	1-2
1.2.5 Inspections	1-2
1.2.6 Training	1-2
1.2.7 Periodic Review of O&M Plans	1-2
1.3 IMPLEMENTATION & IMPROVEMENTS	1-3
1.4 RECORD KEEPING	1-3
 <u>APPENDIX A</u>	
Exhibit A-1 WPCM O&M PLAN	
Exhibit A-2 WPCP O&M PLAN	
Exhibit A-3 UTILITY'S 2006 BUDGET	
Exhibit A-4 RECORDKEEPING	
<u>2.0 MAXIMIZATION OF STORAGE IN THE COLLECTION SYSTEM</u>	2-1
2.1 OVERVIEW	2-1
2.2 OPERATION OF THE COLLECTION SYSTEM	2-1
2.3 ELIMINATION OF BOTTLENECKS AND OBSTRUCTIONS	2-2
2.4 UTILIZATION OF COLLECTION SYSTEM STORAGE	2-3
2.4.1 Ground Above the Collection System	2-3
2.4.2 Collection Pipes	2-4
2.4.3 Collection System Tanks and CSO Ponds	2-4
2.5 TIDE GATE INSPECTIONS	2-5
2.6 RETARDING INFLOWS – INFILTRATION AND INFLOW REDUCTION	2-5
2.7 RECORDKEEPING	2-6
 <u>APPENDIX B</u>	
Exhibit B-1 MAIN SEWERS 1940	
Exhibit B-2 POTENTIAL INLINE STORAGE LOCATIONS	

CSO OPERATIONAL PLAN

Exhibit B-3	COMBINED SEWER SYSTEM INLINE STORAGE ASSESSMENT STUDY	
Exhibit B-4	CSO PONDS NOS. 1&2 RECYCLE STUDY	
Exhibit B-5	WPCP CSO TERMINAL PONDS NOS. 1&2 RECYCLE STUDY	
Exhibit B-6	PROJECT LIST	
Exhibit B-7	RECORDKEEPING	

3.0 REVIEW AND MODIFICATION OF PRETREATMENT REQUIREMENTS 3-1

3.1	OVERVIEW	3-1
3.2	SIU IMPACT EVALUATION	3-1
3.2.1	Identification of Pollutants of Interest	3-1
3.2.2	Identification of SIUs and How Each is Connected to the Combined Sewer System	3-3
3.2.3	Determination of Potential Impact to Water Quality in Receiving Waters due to SIUs Discharging into the Sewer System	3-3
3.2.4	Estimate Benefits Associated with Ordinance Modification and/or More Effective Enforcement (Reduction of Pollutants of Interest Discharging from CSOs) and Compare to Estimated Costs	3-3
3.2.5	Recommended Modifications or Justifications of no Changes for Pretreatment Program	3-4
3.3	SIU IMPACT EVALUATION RESULTS	3-4
3.4	RECORDKEEPING	3-4

APPENDIX C

Exhibit C-1	INDUSTRIAL PRETREATMENT PROGRAM	
Exhibit C-2	ENFORCEMENT RESPONSE PLAN	
Exhibit C-3	CODE OF ORDINANCES: CHAPTER 51 SEWERS	
Exhibit C-4	FINDINGS REPORT	
Exhibit C-5	RECORDKEEPING	

4.0 MAXIMIZATION OF FLOW TO THE POTW FOR TREATMENT 4-1

4.1	OVERVIEW	4-1
4.2	WPCP CAPABILITIES	4-1
4.3	PLANNED WPCP IMPROVEMENTS	4-1
4.4	OPERATION OF THE WPCP	4-2
4.5	RECORDKEEPING	4-2

APPENDIX D

Exhibit D-1	UNIT PROCESS DEPICTION OF WPCP CAPACITY	
Exhibit D-2	FACILITIES PLANNING STUDY – MAY 1998	

CSO OPERATIONAL PLAN

Exhibit D-3 PRELIMINARY ENGINEERING REPORT – JANUARY 2001
Exhibit D-4 PRELIMINARY ENGINEERING REPORT – JUNE 2003

5.0 <u>ELIMINATION OF CSOs DURING DRY WEATHER</u>	5-1
5.1 OVERVIEW	5-1
5.2 OPERATING, INSPECTING, AND MAINTAINING	5-1
5.2.1 Operation	5-3
5.2.2 Inspections	5-3
5.2.3 Maintenance	5-3
5.3 ANALYSIS OF PAST DWOs	5-4
5.3.1 Purpose	5-4
5.3.2 Process	5-4
5.4 RECORDKEEPING	5-4

APPENDIX E

Exhibit E-1	DISCHARGE POINT LOCATIONS
Exhibit E-2	ANALYSES OF PAST DRY WEATHER OVERFLOWS
Exhibit E-3	RECOMMENDATIONS TO ELIMINATE OR REDUCE DWOs
Exhibit E-4	RECORDKEEPING

6.0 <u>CONTROL OF SOLID AND FLOATABLE MATERIALS IN CSOs</u>	6-1
6.1 OVERVIEW	6-1
6.2 OPERATING, INSPECTING, AND MAINTAINING	6-1
6.2.1 Operation	6-2
6.2.2 Inspections	6-2
6.2.3 Maintenance	6-2
6.3 INVESTIGATION OF EXISTING SOLID AND FLOATABLE MATERIAL DISCHARGES	6-2
6.3.1 Purpose	6-2
6.3.2 Process	6-2
6.3.3 Pilot Projects – Further Investigation	6-3
6.4 INTEGRATION WITH LONG TERM CSO CONTROL PLAN	6-3
6.5 RECORDKEEPING	6-4

APPENDIX F

Exhibit F-1	CITY OF FORT WAYNE RECOMMENDED CSO SITES FOR FURTHER SOLIDS AND FLOATABLES INVESTIGATION
Exhibit F-2	CSO SOLIDS AND FLOATABLES CONTROL PLAN FOR SELECTED SITES
Exhibit F-3	REPORT CLARIFICATION
Exhibit F-4	RECORDKEEPING

CSO OPERATIONAL PLAN

7.0 POLLUTION PREVENTION PROGRAMS TO REDUCE CONTAMINANTS IN CSOs **7-1**

7.1 OVERVIEW	7-1
7.2 POLLUTION PREVENTION ACTIVITIES	7-2
7.3 PUBLIC EDUCATION AND PARTICIPATION	7-3
7.4 PROGRAM EVALUATION	7-4
7.5 RECORDKEEPING	7-5

APPENDIX G

Exhibit G-1	POLLUTION PREVENTION ACTIVITIES - DETAILS
Exhibit G-2	LIST OF AVAILABLE EDUCATIONAL MATERIAL AND SAMPLES
Exhibit G-3	ANNUAL REPORT OF POLLUTION PREVENTION ACTIVITIES

8.0 PUBLIC NOTIFICATION **8-1**

8.1 OVERVIEW	8-1
8.2 EDUCATIONAL ACTIVITIES	8-1
8.3 INFORMATION SOURCES	8-2
8.3.1 CSO Signs	8-3
8.3.2 Water Quality/CSO Hotline	8-3
8.3.3 Educational Flyer Program	8-3
8.4 CSO PUBLIC NOTIFICATION PROGRAM	8-4
8.4.1 Determining CSO Events	8-4
8.4.2 Notification Procedure	8-4
8.4.3 Reporting and Record Keeping	8-5

APPENDIX H

Exhibit H-1	SAMPLES OF EDUCATIONAL MATERIAL
Exhibit H-2	CSO PUBLIC NOTIFICATION PROCEDURE
Exhibit H-3	ANNUAL REPORT OF EDUCATION AND PUBLIC NOTIFICATION PROGRAM
Exhibit H-4	LIST OF AVAILABLE EDUCATIONAL MATERIAL
Exhibit H-5	CONTACTS FOR EDUCATION ACTIVITIES
Exhibit H-6	SAMPLE CSO SIGN
Exhibit H-7	WATER QUALITY HOTLINE

CSO OPERATIONAL PLAN

9.0 MONITORING TO CHARACTERIZE CSO IMPACTS AND EFFICACY OF CSO CONTROLS **9-1**

9.1 INTRODUCTION	9-1
9.2 IMPLEMENTATION OF THE NINTH MINIMUM CONTROL	9-1
9.2.1 Mapping the CSS and Its Drainage Area	9-1
9.2.2 Identification of Designated and Existing Uses, Water Quality Criteria, and Compliance Status	9-2
9.2.3 Monitoring of CSO Discharges	9-2
9.2.4 Compilation of Information on Water Quality Impacts From CSO Discharges	9-2
9.2.5 Summary of Findings	9-3
9.2.6 Developing a Long-Term Monitoring Plan for the LTCP	9-3
9.3 RECORDKEEPING	9-4

APPENDIX I

Exhibit I-1	INTIGRATED MONITORING AND ASSESSMENT REPORT FINDINGS
Exhibit I-2	WATER QUALITY EXCURSION SUMMARY
Exhibit I-3	2004 REGULATOR OVERFLOW SUMMARY
Exhibit I-4	2007 INDIANA FISH CONSUMPTION ADVISORY - STREAMS AND RIVERS
Exhibit I-5	PARTIAL MONITORING PLAN
Exhibit I-6	RECORDKEEPING

LIST OF TABLES

<u>Table</u>		<u>Page</u>
5-1	DISCHARGE POINTS	5-2

LIST OF FIGURES

<u>Figure</u>		<u>Follows Page</u>
5-1	REGULATORS AND DISCHARGE POINTS	5-1
6-1	STANDARD CATCH BASIN	6-1
9-1	COMBINED SEWER SYSTEM	9-1

GLOSSARY