

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF INDIANA
FORT WAYNE DIVISION

UNITED STATES OF AMERICA)
and)
THE STATE OF INDIANA,)
Plaintiffs,)
v.)
THE CITY OF FORT WAYNE,)
INDIANA,)
Defendant.)

Civil Action No. 2:07-cv-00445-PPS-APR

**AGREED SECOND MATERIAL MODIFICATION
TO CONSENT DECREE**

WHEREAS:

A. On April 1, 2008, the United States District Court for the Northern District of Indiana approved and entered a Consent Decree between the United States and State of Indiana (collectively “Plaintiffs”) and the City of Fort Wayne, Indiana (“Fort Wayne” or “Defendant”) in a case captioned *United States, et al. v. City of Fort Wayne*, Civil Action No. 2:07-cv-00445-PPS-APR (Doc. No. 4).

B. The objective of the Consent Decree is for Defendant to achieve and maintain full compliance with the Clean Water Act, applicable state law, and the current National Pollutant Discharge Elimination System Permit for Defendant’s Water Pollution Control Plant (“WPCP”) and Sewer System.

C. On January 26, 2015, the Court entered a material modification to the Consent Decree. ECF No. 8.

D. Paragraphs 14 and 16 of the Consent Decree require the Defendant to develop and construct fifteen Combined Sewer Overflow Control Measures (“Control Measures”) as part of a Long-Term Control Plan (“LTCP”), summaries of which are set forth in Appendix 3 to the Consent Decree and incorporated therein. The LTCP includes, but is not limited to:

(1) Descriptions of Control Measures; (2) Design Criteria for the Control Measures (which are subject to revision during facility planning and design as necessary to meet the Performance Criteria); (3) Critical Milestones for construction and implementation of the Control Measures; (4) Performance Criteria for the Control Measures; and (5) provisions related to Post-Construction Monitoring (as described in Appendix 4 to the Consent Decree). Section VII of the Consent Decree requires Fort Wayne to develop, design, and construct the Control Measures in accordance with the Descriptions of Control Measures, Design Criteria, and Critical Milestones set forth in Appendix 3 and the LTCP, so as to achieve the specified Performance Criteria in accordance with Appendix 3, Appendix 4 (Post Construction Monitoring) and the LTCP.

E. In the course of implementing the Consent Decree since the 2015 modification referenced above in Paragraph C, Fort Wayne has determined that there is a more optimal approach to three Control Measures (Numbers 9, 11, and 12) and has proposed the following modifications that are described herein.

Control Measure No. 9 Modification: On November 2, 2016, pursuant to Paragraph 103 of the Consent Decree, EPA and IDEM agreed to Fort Wayne’s proposed revision to Control Measure No. 9. The current LTCP provisions, as summarized in Appendix 3 of the Consent Decree (and particularly Table 4.2.4.1 of Appendix 3), require Fort Wayne to develop and

construct satellite disinfection facilities for CSOs 054, 061, and 062 as Control Measure No. 9. Instead, Fort Wayne proposed to construct a 0.2 million-gallon local storage basin for CSO 054, and to construct a relief sewer for conveyance of overflows from CSOs 061 and 062 to the Wet Weather Ponds/WPCP for treatment. The Design Criteria for the relief sewer is a 54-inch diameter pipe to capture/convey combined sewer overflow at a peak flow rate of 18.0 million gallons per day. The Consent Decree's Performance Criteria of four overflow events in a typical year remain unchanged under this modification. The Consent Decree's Achievement of Full Operation date for the 0.2 million-gallon storage basin will be December 31, 2020, which is one year earlier than the original deadline, and the Achievement of Full Operation date for the 54-inch relief sewer will be December 31, 2018, which is three years earlier than the original deadline.

Control Measure No. 11 Modification: The current LTCP provisions for Control Measure No. 11, as incorporated into the Consent Decree in summary form as Appendix 3, and particularly Table 4.2.4.1 in Appendix 3, require Fort Wayne to develop and construct a parallel near-surface interceptor sewer to capture CSOs for conveyance to Fort Wayne's Wet Weather Ponds/WPCP for treatment. Instead, Fort Wayne has proposed to build a deep tunnel sewer with a larger, uniform 16 foot diameter and with more length at its upstream end than the originally planned near-surface sewer that would increase capacity and capture additional CSOs currently slated to be controlled by Control Measure No. 12 (which will be correspondingly reduced in size). Under this change, Control Measure No. 11 would have a Design Criteria of a peak flow rate of 490 million gallons per day ("MGD") at its downstream end in contrast with the current Control Measure No. 11 Design Criteria of a peak flow rate of 376 MGD. The revised Control Measure No. 11 would achieve full operation by December 31, 2023, one year later than the

current Consent Decree deadline for Control Measure No. 11. However, under this modification, CSO 018, the largest CSO in the Sewer System, along with CSOs 017 and 019, would be controlled through Control Measure No. 11 rather than Control Measure No. 12, which would accelerate the schedule for controlling these three CSO discharges by two years from December 31, 2025 to December 31, 2023. The Performance Criteria for this control measure remains at four overflow events in a typical year. The benefits of this alteration include less construction interference with vehicular traffic and public utilities, less need to secure easements, increased storage capacity, and accelerated control of CSO discharges from CSO 018 and two smaller CSOs (017 and 019).

Control Measure No. 12 Modification. The current LTCP provisions for Control Measure No. 12, as incorporated into the Consent Decree in summary form as Table 4.2.4.1 of Appendix 3, require Fort Wayne to develop and construct a parallel near-surface interceptor sewer to capture CSOs for conveyance to Fort Wayne's Wet Weather Ponds/WPCP for treatment via the connecting parallel interceptor of Control Measure No. 11. The current Design Criteria for Control Measure No. 12 provides for a peak flow rate of 176 MGD at the downstream end of the interceptor sewer. The proposed modification to Control Measure No. 12 reduces the length of this parallel interceptor as a result of the increased length of the deep tunnel conveyance proposed for Control Measure No. 11 to extend to CSO 018. Correspondingly, the Design Criteria peak flow rate at the interceptor's downstream end will be reduced to 130 MGD because three CSOs (CSO 018, 017 and 019) will be controlled by Control Measure No. 11 instead of Control Measure No. 12. The Consent Decree's full operation date of December 31, 2025 and Performance Criteria of four overflow events in a typical year for Control Measure No. 12 remain unchanged in the proposed Modification.

F. As described above, the changes embodied in the proposed Modification have public benefits including less construction interference with vehicular traffic, increased storage capacity, and accelerated control of three CSO discharges, including the largest CSO in Fort Wayne's Sewer System (CSO 018). As such, this modification is reasonable, in the public interest and consistent with the Clean Water Act.

G. To facilitate administration of this Consent Decree, all Control Measure modifications addressed in this Agreed Second Material Modification to the Consent Decree are incorporated in Table 4.2.4.1 to Appendix 3. The changes proposed in this Agreed Second Material Modification to the Consent Decree appear in Table 4.2.4.1 in blue font (additions) and red font (strike-outs), attached hereto as Attachment 1. A clean version of Table 4.2.4.1, as it is proposed to be revised, is attached hereto as Attachment 2.

H. Paragraph 81 of the Consent Decree provides that any modification of the Consent Decree, including any attached appendices, may be made only by the written approval of all Parties. Where a modification also constitutes a "material change" to the Consent Decree, it shall be effective only upon approval by the Court. Proposed changes described in this Agreed Second Material Modification to the Consent Decree constitute a material change such that Court approval is required.

NOW, THEREFORE, upon consent of the Parties hereto, before the taking of testimony, and without any adjudication of issues of fact or law, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

1. The Consent Decree shall remain in full force and effect in accordance with its terms, except that the attached Table 4.2.4.1 of Appendix 3 (Attachment 2 hereto) shall be substituted for the previously modified Table 4.2.4.1 in Appendix 3 to the Consent Decree.

2. This Agreement may be executed in counterparts.
3. This Agreed Second Material Modification of the Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding this Agreed Second Material Modification of the Consent Decree disclose facts or considerations indicating that this Modification is inappropriate, improper, or inadequate. Defendant hereby agrees not to withdraw from, oppose entry of, or to challenge any provision of this Consent Decree or this Modification thereof, unless the United States has notified Defendant in writing that it no longer supports entry of the Consent Decree.

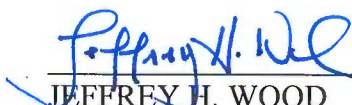
This Agreed Second Material Modification of the Consent Decree is entered and approved this 23 day of May, 2019, ~~2018~~.

/s/ Philip P. Simon
PHILIP P. SIMON
District Court Judge

The undersigned party hereby consents and certifies that it is authorized to consent to the terms and conditions of this Agreed Second Material Modification of the Consent Decree.


FOR THE UNITED STATES OF AMERICA

Date: 10/3/18



JEFFREY H. WOOD
Acting Assistant Attorney General
U.S. Department of Justice
Environment and Natural Resources Division

Date: 10/4/18



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Date: 10/4/18

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The undersigned party hereby consents and certifies that it is authorized to consent to the terms and conditions of this Agreed Second Material Modification of the Consent Decree.

FOR THE UNITED STATES OF AMERICA

Date: 9/26/2018

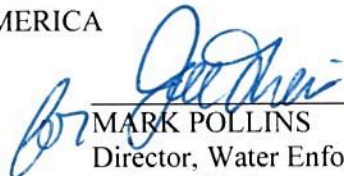


T. LEVERETT NELSON
Regional Counsel
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, IL 60604

The undersigned party hereby consents and certifies that it is authorized to consent to the terms and conditions of this Agreed Second Material Modification of the Consent Decree.

FOR THE UNITED STATES OF AMERICA

Date: 9/21/18



MARK POLLINS
Director, Water Enforcement Division
Office of Enforcement and
Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Date: 9/4/2018




SARAH GONZALEZ
Attorney-Adviser
Water Enforcement Division
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U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

The undersigned party hereby consents and certifies that it is authorized to consent to the terms and conditions of this Agreed Second Material Modification of the Consent Decree.

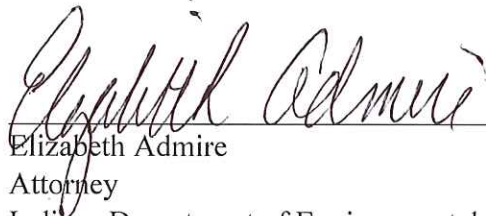
FOR THE STATE OF INDIANA:

9/6/2018
Date



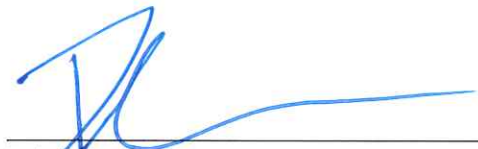
BRUNO L. PIGOTT
Commissioner
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

Sept 7, 2018
Date



Elizabeth Admire
Attorney
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

September 12, 2018
Date



PATRICIA ORLOFF ERDMANN
Chief Counsel of Litigation
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Indianapolis, IN 46204

The undersigned party hereby consents and certifies that it is authorized to consent to the terms and conditions of this Agreed Second Material Modification of the Consent Decree.

FOR THE CITY OF FORT WAYNE

Date: 9/10/18



A handwritten signature in black ink, appearing to read "Thomas C. Henry", is written over a horizontal line.

THOMAS C. HENRY, Mayor

City of Fort Wayne

200 East Berry Street, Suite 425

Fort Wayne, IN 46802

ATTACHMENT 1: REDLINE OF LTCP TABLE 4.2.1

REVISED Table 4.2.4.1
 CSO Control Measures, Design Criteria, Performance Criteria, and Critical Milestones

CSO Control	Description ⁽²⁾	CSOs Controlled (By Overflow Permit ID)	Design Criteria ⁽²⁾	Performance Criteria	Critical Milestones ⁽³⁾
1	Plant Primaries ⁽⁴⁾ Upgrade WPCP primaries to achieve peak capacity of 85 mgd and firm capacity of 74 mgd ⁽⁵⁾ .	57; Outfall 002/003	When combined with the rest of the WPCP improvements, provide peak primary treatment capacity of 85 mgd and firm capacity of 74 mgd.	When combined with the rest of the WPCP improvements, facility achieves peak capacity of 85 mgd while complying with effluent limits of current NPDES permit at Outfall 001.	To be completed and in full operation in 2008
2	Plant Phase III ⁽⁴⁾ Upgrade remaining WPCP facilities to achieve peak capacity of 85 mgd and firm capacity of 74 mgd ⁽⁵⁾ .	57; Outfall 002/003	When combined with the rest of the WPCP improvements, provide peak secondary treatment capacity of 85 mgd and firm capacity of 74 mgd.	When combined with the rest of the WPCP improvements, facility achieves peak capacity of 85 mgd while complying with effluent limits of current NPDES permit at Outfall 001.	Bid Year - 2014 Achievement of Full Operation - 2015
3	Early Floatables Control Pilot testing of selected floatables control technologies to assess performance in Fort Wayne ⁽⁶⁾ .	3 pilot locations	CSO-specific; provide instantaneous peak floatables control rate equal to highest annual flow rate in "typical year."	Capture most coarse solids and floatables; design target is to remove one-half-inch diameter and larger solids and floatables.	Commence study - Ongoing Complete study - 2008 Initiate pilot program and make fully operational - 2009 Monitor pilot installations - 2009-2010
4	CSSCIP - Basins with Planned Satellite Storage/Disinfection Technologies ⁽⁴⁾ Partial separation projects identified as cost-effective components of the Combined Sewer System Capacity Improvements Program.	45, 61, 62, 64, 51, 52, 53, 54, 68	Storm drains designed as per Fort Wayne Stormwater Standards. Sanitary sewers designed as per Fort Wayne Sanitary Standards and Ten State Standards.	Partial separation of sewers to address basement flooding concerns and reduce local CSOs.	The CSSCIP Program was begun in 1999. The program schedule typically addresses two to three combined sewer subbasins per calendar year. CSSCIP work under this Control Measure will be scheduled in two phases: Phase 1 will address CSO Outfalls 45, 51, 52, 53, and 68, and be completed by 2010; Phase 2 will address CSO Outfalls 61, 62, 64, and 54, and be completed by 2013.
5	Pond Storage & Dewatering Improvements to CSO Pond 1 to allow storage of combined sewer overflow with subsequent dewatering to WPCP.	When combined with the Parallel Interceptor and Morton Street solution, all CSOs tributary to the Parallel Interceptor, plus CSO 48 and 57, plus Outfalls 002/003	Provide storage capacity of approximately 95 MG.	Achieve 4 overflow events from Ponds ⁽⁷⁾	Optimization of existing facilities to allow interim dewatering - 2008 Bid Year for Full Dewatering Capability - 2011 Achievement of Full Operation - 2013
6	CSSCIP - Basins Tributary to PI ⁽⁴⁾ Partial separation projects identified as cost-effective components of the Combined Sewer System Capacity Improvements Program.	4, 5, 11, 12, 13, 17, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 32, 33, 36, 39, 50, 55, 60 (Note: CSSCIP work associated with Outfalls 17, 26, 27, 28, 33, and 36 already completed as of 2007)	Storm drains designed as per Fort Wayne Stormwater Standards. Sanitary sewers designed as per Fort Wayne Sanitary Standards and Ten State Standards.	Partial separation of sewers to address basement flooding concerns and reduce local CSOs.	The CSSCIP Program began in 1999 and typically addresses two to three combined sewer subbasins per calendar year. Remaining CSSCIP work under this Control Measure will be initiated in 2012 and completed in 2018.
7 & 8	St. Joseph Relief Sewers Parallel interceptor and connections to capture combined sewer overflows for conveyance to WPCP/CSO Ponds. Begins at CSO 52 and connects to existing St. Joe Interceptor west (downstream) of CSO 53. Adds control structure at WWPS.	45, 51, 52, 53, 68	Provide approximate peak flow rate of 22.5 MGD at downstream end of the St. Joseph Relief Sewer. (CSOs 51, 52 and 53) Provide peak flow rates at points of connection for: CSO 45: 0.3 MGD CSO 68: 5.3 MGD	Achieve 1 overflow event ⁽⁷⁾	Bid Year - 2014 Achievement of Full Operation 2015
9	Satellite Disinfection Local storage basin for CSO 54 and a relief sewer for CSOs 61 and 62. Construction of a local storage basin for CSO 54. Capture/convey overflows from CSOs 61/62 to the Wet Weather Ponds/WPCP at a peak flow rate of 18 MGD in the relief sewer.	54, 61, 62	Provide peak disinfection treatment rate of: ⁽⁴²⁾ CSO 54: 1.2 MGD CSO 61: 8.4 MGD CS 62: 5.8 MGD Provide a storage volume of 0.2 million gallons (MG) for CSO 54 and construction of a 54 inch relief sewer for conveyance of overflows from CSOs 61 and 62 to the Wet Weather Ponds/WPCP. Capture/convey overflows from CSOs 61/62 at an approximate peak flow rate of 18 MGD in the relief sewer.	Achieve 1-4 overflow events⁽⁷⁾; provide treatment to meet NPDES effluent limits for Satellite Disinfection for all other discharge events. ⁽⁴³⁾	Bid Year (first facility) - 2018 Achievement of Full Operation (final facility) - 2021 (CSO 54) - December 31, 2020. Achievement of Full Operation (CSO 61, 62) December 31, 2018.
10	Morton Street/O10101 Reroute Re-route overflow pump station discharge to CSO Pond 1.	48	Provide peak pumping capacity equal to highest annual flow rate in "typical year."	Achieve 0 overflow events ⁽⁷⁾	Bid Year - 2019 Achievement of Full Operation - 2019

REVISED Table 4.2.4.1
 CSO Control Measures, Design Criteria, Performance Criteria, and Critical Milestones

CSO Control Measure ⁽¹⁾	Description ⁽²⁾	CSOs Controlled (By Overflow Permit ID)	Design Criteria ⁽²⁾	Performance Criteria	Critical Milestones ⁽³⁾	
11	Wayne Street Parallel-Interceptor 3RPORT Tunnel	Parallel-Interceptor to capture combined-sewer overflows for conveyance to WPCP/CSO Pond. Begins near CSO 21 (K19044) at southern end and discharges into the Wayne Street Parallel-Interceptor. A 5.0 mile long, 16-foot diameter deep rock tunnel (3RPORT) to capture combined sewer overflows for conveyance to Wet Weather Ponds/WPCP. Begins near CSO 18 (K11165) near Rudisill Blvd. at southern (upstream) end and discharges into the treatment complex at Glasgow Ave. at/near the Wet Weather Pump Station.	11, 12, 13, 17, 18, 19, 23, 24, 27, 28, 29, 32, 33, 50, 4, 26-36, 39, 55, 60 ⁽⁶⁾	Provide approximate instantaneous peak flow rate of 376 490 MGD at downstream end ⁽⁹⁾ .	Achieve 4 overflow events ⁽⁷⁾	Bid Year – 2020 December 31, 2017 Achievement of Full Operation - 2022 December 31, 2023
12	St. Marys Parallel-Interceptor Foster Park Relief Sewer	Parallel-Interceptor to capture combined-sewer overflows for conveyance to WPCP/CSO Ponds. Begins near CSO 21 (K19044) at southern end and discharges into the Wayne Street Parallel-Interceptor. A 1.5 mile near-surface conduit to capture combined sewer overflows for conveyance to Wet-Weather Ponds/WPCP via the 3RPORT Tunnel. Begins near CSO 21 (K19044) at southern end and discharges into the 3RPORT Tunnel upstream of CSO 18 near Rudisill Blvd.	4, 5, 47, 48, 49 20, 21	Provide approximate instantaneous peak flow rate of 476 130 MGD at downstream end ⁽⁹⁾ .	Achieve 4 overflow events ⁽⁷⁾	Bid Year – December 31, 2023 Achievement of Full Operation - December 31, 2025
13	Late Floatables Control	Overflow-specific solids and floatables controls ⁽⁶⁾ .	All CSOs for which floatables not addressed through other facilities	CSO-specific; provide instantaneous peak floatables control rate equal to highest annual flow rate in "typical year."	Capture most coarse solids and floatables; design target is to remove one-half-inch diameter and larger solids and floatables ⁽¹⁰⁾ .	Bid Year (first facility) - 2020 Achievement of Full Operation (final facility) - 2025
14	Satellite Storage	Satellite storage facility	64	Provide storage volume of 0.23 MG	Achieve 4 overflow events ⁽⁷⁾	Bid Year - 2025 Achievement of Full Operation -- 2025
15	CSO Pond High Rate Treatment ⁽¹¹⁾	Enhanced High Rate Clarification facility, typically referred to by the trade names DensaDeg or ACTIFLO.	When combined with the Parallel Interceptor and Morton Street solution, all CSOs tributary to the Parallel Interceptor plus CSO 48.	TBD	Achieve 4 overflow events ⁽⁷⁾	TBD

Footnotes:

(1) Upon full implementation, the CSO Control Measures listed in Table 4.2.4.1 are expected to result in 4 CSO events on the St. Marys and Maumee Rivers and 1 CSO event on the St. Joseph River in a "typical year," as evaluated in accordance with footnote 5 (note: Outfall 48 on the Maumee River will be controlled to 0 CSO events in a "typical year"). Either a revision to Indiana's current water quality standards or some other legal mechanism is necessary to authorize overflows due to storms exceeding those levels of control. In Chapter 5 of the LTCP, the City of Fort Wayne is requesting a revision to the applicable water quality criteria consistent with this level of control through the establishment of a CSO wet-weather limited use subcategory supported by a Use Attainability Analysis (UAA). The design and construction of CSO Control Measures 1, 2, 4, 6, and 10 are not dependent on the level of control ultimately determined, and limited the City will implement CSO Control Measures 1, 2, 4, 6, and 10 according to the terms and schedules set forth in this Table.

(2) The Description and Design Criteria are based upon LTCP-level planning estimates and may be subject to revision during facility planning and design. One of the conditions of Description and Design Criteria, applicable to all of the facilities set forth in this Table 4.2.4.1, is that the specific facility will be designed in accordance with good engineering practice to ensure that corresponding facility-specific, river-specific, and system-wide Performance Criteria will be achieved.

(3) The term "Bid Year" means "Completion of the Bidding Process."

(4) The CSO Control Measure is not expected to achieve target activation levels on its own, but will work in conjunction with other CSO Control Measures at the specified CSO outfalls to achieve the performance goals.

(5) With all units in service, peak WPCP capacity of 85 mgd can be maintained for over 24 hours.

(6) Implementation of floatables control using industry-standard technologies (e.g., baffles, in-line netting, mechanical screens, passive screens, vortex separators) is contingent on IDEM interpretation of setback requirements. The City's proposed floatables control program assumes that these typical, industry-standard control technologies will continue to not be subject to setback requirements.

(7) CSO Control Measure will be designed to achieve Performance Criteria of 4 CSO events for the St. Marys and Maumee Rivers and 1 CSO event for the St. Joseph River in a "typical year." (Note: Outfall 48 on the Maumee River will be controlled to 0 CSO events in a "typical year"). "Typical year" performance, and achievement of Performance Criteria, is based on average annual statistics over a representative five-year period. The method to assess "typical year" performance over a typical 5-year period will be selected from the options presented in Section 4.6 of Appendix 4 (Post-Construction Monitoring).

~~(8) Footnote (8) deleted. The preferred CSO Control Measure for these CSOs is Satellite Disinfection based on the technology screening and selection process conducted by the City. The City will proceed as described in Section 4.6 of Appendix 4 to conduct a Satellite Disinfection Pilot Study if it ultimately elects to construct one or more Satellite Disinfection facilities. Alternatively, the City may pursue construction of an Alternative Control Measure, including one or more satellite storage or other facilities, in lieu of satellite disinfection facilities as the CSO Control Measure for Outfalls 54, 61 and/or 62. Any such proposed Alternative Control Measure must meet the Level of Control/Performance Criteria and Critical Milestones previously agreed to for Control Measure 9 and as currently set forth in this Revised Appendix 3. If Fort Wayne pursues the selection of other Facilities in lieu of satellite disinfection it shall submit an Alternative Control Measure proposal by December 15, 2016 for approval under Paragraph 103 of the Consent Decree. The proposal shall include a full discussion of the justification for the selection.~~

(9) ~~The 3RPORT Tunnel consists of approximately 5 miles of 16-foot diameter tunnel, and 1.9 miles of tributary drop shaft consolidation sewers that vary in size from 24-inch to 72-inch in diameter. For both the 3RPORT Tunnel and the Foster Park relief sewer, the stated downstream capacity is the largest capacity required by the referenced Parallel-Interceptor CSO Control Measure. Required capacity will decrease in upstream sections of both conveyances and the parallel-Interceptor pipe diameter will decrease in upstream sections of the Foster Park relief sewer due to lower peak flows. This is consistent with standard engineering practice for a pipe that accepts incremental flows from its upstream end to its downstream end. Capacity requirements at interim locations along the Parallel-Interceptor are presented in Section 3.3.~~

(10) Design target of removing one-half-inch and larger solids and floatables will be confirmed or modified based on results of pilot floatables control program (CSO Control Measure 3).

(11) The completed LTCP analysis indicates that the Pond Storage & Dewatering (CSO Control Measure 3) will reduce Pond activations to 4 overflow events per "typical year." Therefore, the CSO Pond EHR/HRT facility will be constructed only if required to achieve the agreed-upon performance criteria for the Maumee River, i.e. 4 overflow events per "typical year," following completion of CSO Control Measures 5, 11, and 12.

~~(12) Footnote deleted. Required disinfection protocol and associated effluent limits for flows up to and including the peak flow rate shall be defined as noted in Section 4.6 of Appendix 4.~~

~~(13) Footnote deleted. If Satellite Disinfection technology is utilized, NPDES effluent limits shall be as noted in Section 4.6 of Appendix 4.~~

(a) Implementation of the 3RPORT system will allow control of these CSOs as follows:

- CSOs 4, 36, and 39 will be controlled through system optimization (regulator elimination and/or additional capture in existing interceptors) to meet or exceed required performance criteria. CSO 26 has been eliminated by its consolidation with CSO 33.
- CSOs 55 and 60 are located within 1/4 mile of the Treatment Complex and have been or will be controlled with local relief sewers for conveyance to the Wet Weather Ponds/WPCP (CSO 55) or directly to the WPCP (CSO 60) to meet or exceed required performance criteria.

ATTACHMENT 2: CLEAN MODIFIED LTCP TABLE 4.2.1

REVISED Table 4.2.4.1
 CSO Control Measures, Design Criteria, Performance Criteria, and Critical Milestones

CSO Control		Description ⁽²⁾	CSOs Controlled (By Overflow Permit ID)	Design Criteria ⁽²⁾	Performance Criteria	Critical Milestones ⁽³⁾
1	Plant Primaries ⁽⁴⁾	Upgrade WPCP primaries to achieve peak capacity of 85 mgd and firm capacity of 74 mgd ⁽⁵⁾ .	57; Outfall 002/003	When combined with the rest of the WPCP improvements, provide peak primary treatment capacity of 85 mgd and firm capacity of 74 mgd.	When combined with the rest of the WPCP improvements, facility achieves peak capacity of 85 mgd while complying with effluent limits of current NPDES permit at Outfall 001.	To be completed and in full operation in 2008
2	Plant Phase III ⁽⁴⁾	Upgrade remaining WPCP facilities to achieve peak capacity of 85 mgd and firm capacity of 74 mgd ⁽⁵⁾ .	57; Outfall 002/003	When combined with the rest of the WPCP improvements, provide peak secondary treatment capacity of 85 mgd and firm capacity of 74 mgd.	When combined with the rest of the WPCP improvements, facility achieves peak capacity of 85 mgd while complying with effluent limits of current NPDES permit at Outfall 001.	Bid Year - 2014 Achievement of Full Operation - 2015
3	Early Floatables Control	Pilot testing of selected floatables control technologies to assess performance in Fort Wayne ⁽⁶⁾ .	3 pilot locations	CSO-specific; provide instantaneous peak floatables control rate equal to highest annual flow rate in "typical year."	Capture most coarse solids and floatables; design target is to remove one-half-inch diameter and larger solids and floatables.	Commence study - Ongoing Complete study - 2008 Initiate pilot program and make fully operational - 2009 Monitor pilot installations - 2009-2010
4	CSSCIP - Basins with Planned Satellite Storage/Disinfection Technologies ⁽⁴⁾	Partial separation projects identified as cost-effective components of the Combined Sewer System Capacity Improvements Program.	45, 61, 62, 64, 51, 52, 53, 54, 68	Storm drains designed as per Fort Wayne Stormwater Standards. Sanitary sewers designed as per Fort Wayne Sanitary Standards and Ten State Standards.	Partial separation of sewers to address basement flooding concerns and reduce local CSOs.	The CSSCIP Program was begun in 1999. The program schedule typically addresses two to three combined sewer subbasins per calendar year. CSSCIP work under this Control Measure will be scheduled in two phases: Phase 1 will address CSO Outfalls 45, 51, 52, 53, and 68, and be completed by 2010; Phase 2 will address CSO Outfalls 61, 62, 64, and 54, and be completed by 2013.
5	Pond Storage & Dewatering	Improvements to CSO Pond 1 to allow storage of combined sewer overflow with subsequent dewatering to WPCP.	When combined with the Parallel Interceptor and Morton Street solution, all CSOs tributary to the Parallel Interceptor, plus CSO 48 and 57, plus Outfalls 002/003	Provide storage capacity of approximately 95 MG.	Achieve 4 overflow events from Ponds ⁽⁷⁾	Optimization of existing facilities to allow interim dewatering - 2008 Bid Year for Full Dewatering Capability - 2011 Achievement of Full Operation - 2013
6	CSSCIP - Basins Tributary to PI ⁽⁴⁾	Partial separation projects identified as cost-effective components of the Combined Sewer System Capacity Improvements Program.	4, 5, 11, 12, 13, 17, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 32, 33, 36, 39, 50, 55, 60 (Note: CSSCIP work associated with Outfalls 17, 26, 27, 28, 33, and 36 already completed as of 2007)	Storm drains designed as per Fort Wayne Stormwater Standards. Sanitary sewers designed as per Fort Wayne Sanitary Standards and Ten State Standards.	Partial separation of sewers to address basement flooding concerns and reduce local CSOs.	The CSSCIP Program began in 1999 and typically addresses two to three combined sewer subbasins per calendar year. Remaining CSSCIP work under this Control Measure will be initiated in 2012 and completed in 2018.
7 & 8	St. Joseph Relief Sewers	Parallel interceptor and connections to capture combined sewer overflows for conveyance to WPCP/CSO Ponds. Begins at CSO 52 and connects to existing St. Joe Interceptor west (downstream) of CSO 53. Adds control structure at WWPS.	45, 51, 52, 53, 68	Provide approximate peak flow rate of 22.5 MGD at downstream end of the St. Joseph Relief Sewer. (CSOs 51, 52 and 53) Provide peak flow rates at points of connection for: CSO 45: 0.3 MGD CSO 68: 5.3 MGD	Achieve 1 overflow event ⁽⁷⁾	Bid Year -2014 Achievement of Full Operation 2015
9	Local storage basin for CSO 54 and a relief sewer for CSOs 61 and 62.	Construction of a local storage basin for CSO 54. Capture/convey overflows from CSOs 61/62 to the Wet Weather Ponds/WPCP at a peak flow rate of 18 MGD in the relief sewer.	54, 61, 62	Provide a storage volume of 0.2 million gallons (MG) for CSO 54 and construction of a 54 inch relief sewer for conveyance of overflows from CSOs 61 and 62 to the Wet Weather Ponds/ WPCP. Capture/convey overflows from CSOs 61/62 at an approximate peak flow rate of 18 MGD in the relief sewer.	Achieve-4 overflow events ⁽⁷⁾	Bid Year Achievement of Full Operation (CSO 54) - December 31, 2020. Achievement of Full Operation (CSO 61, 62) December 31, 2018.
10	Morton Street/O10101 Reroute	Re-route overflow pump station discharge to CSO Pond 1.	48	Provide peak pumping capacity equal to highest annual flow rate in "typical year."	Achieve 0 overflow events ⁽⁷⁾	Bid Year - 2019 Achievement of Full Operation - 2019
11	3RPORT Tunnel	A 5.0 mile long, 16-foot diameter deep rock tunnel (3RPORT) to capture combined sewer overflows for conveyance to Wet Weather Ponds/WPCP. Begins near CSO 18 (K11165) near Rudisill Blvd. at southern (upstream) end and discharges into the treatment complex at Glasgow Ave. at/near the Wet Weather Pump Station.	11, 12, 13, 17, 18, 19, 23, 24, 27, 28, 29, 32, 33, 50, 4, 36, 39, 55, 60 ⁽⁴⁾	Provide instantaneous peak flow rate of 490 MGD at downstream end ⁽⁹⁾ .	Achieve 4 overflow events ⁽⁷⁾	Bid Year - December 31, 2017 Achievement of Full Operation - December 31, 2023

REVISED Table 4.2.4.1
 CSO Control Measures, Design Criteria, Performance Criteria, and Critical Milestones

CSO Control Measure ⁽¹⁾		Description ⁽²⁾	CSOs Controlled (By Overflow Permit ID)	Design Criteria ⁽²⁾	Performance Criteria	Critical Milestones ⁽³⁾
12	Foster Park Relief Sewer	A 1.5 mile near-surface conduit to capture combined sewer overflows for conveyance to Wet-Weather Ponds/WPCP via the 3RPORT Tunnel. Begins near CSO 21 (K19044) at southern end and discharges into the 3RPORT Tunnel upstream of CSO 18 near Rudisill Blvd.	5, 20, 21	Provide instantaneous peak flowrate of 130 MGD at downstream end ⁽⁹⁾ .	Achieve 4 overflow events ⁽⁷⁾	Bid Year – December 31, 2023 Achievement of Full Operation - December 31, 2025
13	Late Floatables Control	Overflow-specific solids and floatables controls ⁽⁶⁾ .	All CSOs for which floatables not addressed through other facilities	CSO-specific; provide instantaneous peak floatables control rate equal to highest annual flow rate in "typical year."	Capture most coarse solids and floatables; design target is to remove one-half-inch diameter and larger solids and floatables ⁽¹⁰⁾ .	Bid Year (first facility) - 2020 Achievement of Full Operation (final facility) - 2025
14	Satellite Storage	Satellite storage facility	64	Provide storage volume of 0.23 MG	Achieve 4 overflow events ⁽⁷⁾	Bid Year - 2025 Achievement of Full Operation – 2025
15	CSO Pond High Rate Treatment ⁽¹¹⁾	Enhanced High Rate Clarification facility, typically referred to by the trade names DensaDeg or ACTIFLO.	When combined with the Parallel Interceptor and Morton Street solution, all CSOs tributary to the Parallel Interceptor plus CSO 48.	TBD	Achieve 4 overflow events ⁽⁷⁾	TBD

Footnotes:

- (1) Upon full implementation, the CSO Control Measures listed in Table 4.2.4.1 are expected to result in 4 CSO events on the St. Marys and Maumee Rivers and 1 CSO event on the St. Joseph River in a "typical year," as evaluated in accordance with footnote 5 (note: Outfall 48 on the Maumee River will be controlled to 0 CSO events in a "typical year"). Either a revision to Indiana's current water quality standards or some other legal mechanism is necessary to authorize overflows due to storms exceeding those levels of control. In Chapter 5 of the LTCP, the City of Fort Wayne is requesting a revision to the applicable water quality criteria consistent with this level of control through the establishment of a CSO wet-weather limited use subcategory supported by a Use Attainability Analysis (UAA). The design and construction of CSO Control Measures 1, 2, 4, 6, and 10 are not dependent on the level of control ultimately determined, and therefore the City will implement CSO Control Measures 1, 2, 4, 6, and 10 according to the terms and schedules set forth in this Table.
- (2) The Description and Design Criteria are based upon LTCP-level planning estimates and may be subject to revision during facility planning and design. One of the conditions of Description and Design Criteria, applicable to all of the facilities set forth in this Table 4.2.4.1, is that the specific facility will be designed in accordance with good engineering practice to ensure that corresponding facility-specific, river-specific, and system-wide Performance Criteria will be achieved.
- (3) The term "Bid Year" means "Completion of the Bidding Process."
- (4) The CSO Control Measure is not expected to achieve target activation levels on its own, but will work in conjunction with other CSO Control Measures at the specified CSO outfalls to achieve the performance goals.
- (5) With all units in service, peak WPCP capacity of 85 mgd can be maintained for over 24 hours.
- (6) Implementation of floatables control using industry-standard technologies (e.g., baffles, in-line netting, mechanical screens, passive screens, vortex separators) is contingent on IDEM interpretation of setback requirements. The City's proposed floatables control program assumes that these typical, industry-standard control technologies will continue to not be subject to setback requirements.
- (7) CSO Control Measure will be designed to achieve Performance Criteria of 4 CSO events for the St. Marys and Maumee Rivers and 1 CSO event for the St. Joseph River in a "typical year." (Note: Outfall 48 on the Maumee River will be controlled to 0 CSO events in a "typical year"). "Typical year" performance, and achievement of Performance Criteria, is based on average annual statistics over a representative five-year period. The method to assess "typical year" performance over a typical 5-year period will be selected from the options presented in Section 4.6 of Appendix 4 (Post-Construction Monitoring).
- (8) Footnote (8) deleted.
- (9) The 3RPORT Tunnel consists of approximately 5 miles of 16-foot diameter tunnel, and 1.9 miles of tributary drop shaft consolidation sewers that vary in size from 24-inch to 72-inch in diameter. For both the 3RPORT Tunnel and the Foster Park relief sewer, the stated downstream capacity is the largest capacity required by the referenced CSO Control Measure. Required capacity will decrease in upstream sections of both conveyances and the pipe diameter may decrease in upstream sections of the Foster Park relief sewer due to lower peak flows. This is consistent with standard engineering practice for a pipe that accepts incremental flows from its upstream end to its downstream end.
- (10) Design target of removing one-half-inch and larger solids and floatables will be confirmed or modified based on results of pilot floatables control program (CSO Control Measure 3).
- (11) The completed LTCP analysis indicates that the Pond Storage & Dewatering (CSO Control Measure 3) will reduce Pond activations to 4 overflow events per "typical year." Therefore, the CSO Pond EHR/HRT facility will be constructed only if required to achieve the agreed-upon performance criteria for the Maumee River, i.e. 4 overflow events per "typical year," following completion of CSO Control Measures 5, 11, and 12.
- (12) Footnote deleted.
- (13) Footnote deleted.
- (a) Implementation of the 3RPORT system will allow control of these CSOs as follows:
- CSOs 4, 36, and 39 will be controlled through system optimization (regulator elimination and/or additional capture in existing interceptors) to meet or exceed required performance criteria. CSO 26 has been eliminated by its consolidation with CSO 33.
 - CSOs 55 and 60 are located within 1/2 mile of the Treatment Complex and have been or will be controlled with local relief sewers for conveyance to the Wet Weather Ponds/WPCP (CSO 55) or directly to the WPCP (CSO 60) to meet or exceed required performance criteria.