

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

**Consent Decree**  
**Appendix 3**

**Performance Criteria**  
**(Table 4.2.4.1 of Long-Term Control Plan)**

# Long Term Control Plan - Chapter 4

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

CSO Control Measure <sup>(1)</sup>		Description <sup>(2)</sup>	CSOs Controlled (By Overflow Permit ID)	Design Criteria <sup>(2)</sup>	Performance Criteria	Critical Milestones <sup>(3)</sup>
1	Plant Primaries <sup>(4)</sup>	Upgrade WPCP primaries to achieve peak capacity of 85 mgd and firm capacity of 74 mgd <sup>(5)</sup> .	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 <sup>(4)</sup>	Upgrade remaining WPCP facilities to achieve peak capacity of 85 mgd and firm capacity of 74 mgd <sup>(5)</sup> .	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 <sup>(6)</sup> .	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 <sup>(4)</sup>	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 <sup>(7)</sup>	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 Pf <sup>(4)</sup>	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	Satellite Storage at St. Joseph River CSOs	Satellite storage facilities	45, 51, 53, 68	Provide storage volume of: CSO 45: 0.04 MG CSO 51: 0.76 MG CSO 53: 0.65 MG CSO 68: 1.17 MG	Achieve 1 overflow event <sup>(7)</sup>	Bid Year (first facility) - 2016 Achievement of Full Operation (final facility) - 2019
8	Satellite Disinfection at St. Joseph River CSOs <sup>(8)</sup>	Satellite disinfection facility	52	Provide peak disinfection treatment rate of 5.0 MGD <sup>(12)</sup>	Achieve 1 overflow event <sup>(7)</sup> ; provide treatment to meet NPDES effluent limits for Satellite Disinfection for all other discharge events. <sup>(13)</sup>	Bid Year - 2013 Achievement of Full Operation - 2014
9	Satellite Disinfection <sup>(8)</sup>	Satellite disinfection facilities	54, 61, 62	Provide peak disinfection treatment rate of: <sup>(12)</sup> CSO 54: 1.2 MGD CSO 61: 8.4 MGD CSO 62: 5.8 MGD	Achieve 1 overflow event <sup>(7)</sup> ; provide treatment to meet NPDES effluent limits for Satellite Disinfection for all other discharge events. <sup>(13)</sup>	Bid Year (first facility) - 2018 Achievement of Full Operation (final facility) - 2021
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 <sup>(7)</sup>	Bid Year - 2019 Achievement of Full Operation - 2019
11	Wayne Street Parallel Interceptor	Parallel interceptor to capture combined sewer overflows for conveyance to WPCP/CSO Ponds. Begins near CSO 13 (K06298) at western end and discharges into the treatment complex at/near the overflow to the CSO Ponds (Regulator Q06057).	11, 12, 13, 23, 24, 26, 27, 28, 29, 32, 33, 36, 39, 50, 55, 60	Provide approximate instantaneous peak flow rate of 376 MGD at downstream end <sup>(9)</sup> .	Achieve 4 overflow events <sup>(7)</sup>	Bid Year - 2020 Achievement of Full Operation - 2022
12	St. Marys Parallel Interceptor	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.	4, 5, 17, 18, 19, 20, 21	Provide approximate instantaneous peak flowrate of 176 MGD at downstream end <sup>(9)</sup> .	Achieve 4 overflow events <sup>(7)</sup>	Bid Year - 2023 Achievement of Full Operation - 2025
13	Late Floatables Control	Overflow-specific solids and floatables controls <sup>(6)</sup> .	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 <sup>(10)</sup> .	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 <sup>(7)</sup>	Bid Year - 2025 Achievement of Full Operation - 2025

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

	CSO Control Measure <sup>(1)</sup>	Description <sup>(2)</sup>	CSOs Controlled (By Overflow Permit ID)	Design Criteria <sup>(2)</sup>	Performance Criteria	Critical Milestones <sup>(3)</sup>
15	CSO Pond High Rate Treatment <sup>(11)</sup>	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 <sup>(7)</sup>	TBD

**Footnotes:**

- <sup>(1)</sup> 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.
- <sup>(2)</sup> 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.
- <sup>(3)</sup> The term "Bid Year" means "Completion of the Bidding Process."
- <sup>(4)</sup> 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.
- <sup>(5)</sup> With all units in service, peak WPCP capacity of 85 mgd can be maintained for over 24 hours.
- <sup>(6)</sup> 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.
- <sup>(7)</sup> 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).
- <sup>(8)</sup> 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 elect to construct Satellite Storage facilities that will achieve the same Level of Control. The City will construct Satellite Storage facilities in lieu of Satellite Disinfection facilities if it comes to acquire, by January 1, 2010, the wastewater collection and treatment systems currently owned or operated by Utility Center, Inc. (a/k/a AquaSource or Aqua Indiana, Inc.) and connected to the Main Aboite and Midwest wastewater treatment facilities (for which the State has issued NPDES Permit Nos. IN0035378 and IN0042391).
- <sup>(9)</sup> The stated downstream end capacity is the largest capacity required by the referenced Parallel Interceptor. Capacity will decrease, and the parallel interceptor pipe diameter will decrease, in upstream sections 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.
- <sup>(10)</sup> 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).
- <sup>(11)</sup> 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 EHRC/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.
- <sup>(12)</sup> Required disinfection protocol and associated effluent limits for flows up to and including the peak flowrate shall be defined as noted in Section 4.6 of Appendix 4.
- <sup>(13)</sup> If Satellite Disinfection technology is utilized, NPDES effluent limits shall be as noted in Section 4.6 of Appendix 4.