

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF INDIANA  
SOUTH BEND DIVISION**

**UNITED STATES OF AMERICA, and )  
STATE OF INDIANA, )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
CITY OF SOUTH BEND, INDIANA, )  
 )  
Defendant. )  
\_\_\_\_\_ )**

**Case No. 3:11CV505**

**AMENDED CONSENT DECREE**

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**APPENDICES**

- A. LONG TERM CONTROL PLAN
- B. SUPPLEMENTAL ENVIRONMENTAL PROJECT

WHEREAS, Plaintiffs United States of America (United States) on behalf of the United States Environmental Protection Agency (EPA) and the State of Indiana (Indiana) on behalf of the Indiana Department of Environmental Management (IDEM) filed a Complaint in this case on December 9, 2011 (Docket No. 1) concurrently with the lodging of a Consent Decree (Docket No. 2) alleging that Defendant City of South Bend, Indiana (South Bend) violated Sections 301 and 309 of the Clean Water Act, 33 U.S.C. §§ 1311 and 1321 (Act), the applicable provisions of Title 13 of the Indiana Code and Title 327 of the Indiana Administrative Code, and South Bend's National Pollution Discharge Elimination System (NPDES) Permits by discharges from Combined Sewer Overflows (CSO) into the waters of the United States and the waters of Indiana, that have violated and continue to violate South Bend's NPDES Permits. The United States and Indiana sought civil penalties and injunctive relief for these violations.

WHEREAS, the Court entered the original Consent Decree on May 2, 2012 (Docket No. 7).

WHEREAS, the Parties agree that Sections XX and XXI of the original Consent Decree are obsolete and should be removed and that the following requirements of the original Consent Decree should be modified: the Long Term Control Plan attached to the original Consent Decree as Appendix A; various definitions in Section IV of the original Consent Decree; and certain reporting, notification, certification, force majeure and dispute resolution provisions in Sections VIII, XI, XII and XVI of the original Consent Decree.

WHEREAS, the Parties agree that this Amended Consent Decree should supersede and replace the original Consent Decree.

The Parties agree, and the Court by entering this Consent Decree finds, that the parties negotiated this Amended Consent Decree in good faith, and that this Amended Consent Decree is fair, reasonable, and in the public interest.

NOW THEREFORE, before the taking of any testimony, without the adjudication or admission of any fact or law except as provided in Section I, below, and with the consent of the Parties, the Court ORDERS, JUDGES, and DECREES as follows:

**I. JURISDICTION AND VENUE**

1. This Court has jurisdiction over the subject matter of this case pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, and Section 309(b) of the Act, 33 U.S.C. § 1319(b), and over the Parties. Venue lies in this District pursuant to Section 309(b) of the Act, 33 U.S.C. § 1319(b), and 28 U.S.C. §§ 1391(b), 1395(a), because South Bend is located in this judicial district and the violations alleged in the Complaint are alleged to have occurred in this judicial district. For purposes of this Decree, or any action to enforce this Decree, South Bend consents to the Court's jurisdiction over this Decree or such action and over South Bend, and consents to venue in this judicial district.
2. For purposes of this Consent Decree, South Bend agrees that the Complaint states claims on which relief may be granted pursuant to Section 309 of the Act, 33 U.S.C. § 1319, and Title 327 of the Indiana Administrative Code.

## **II. APPLICABILITY**

3. The obligations established in this Consent Decree apply to and are binding on the United States and Indiana, and on South Bend and any successor or other entities or persons otherwise bound by law.
4. Any transfer of the ownership or operation of all or any part of the Facility to any other person or entity must be conditioned on the transferee's agreement to undertake the obligations required by this Decree, as provided in a written agreement between South Bend and the proposed transferee, enforceable by the United States and Indiana as third party beneficiaries of such agreement. At least 30 Days prior to such transfer, South Bend shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement to EPA Region 5, the United States Attorney for the Northern District of Indiana, and the United States Department of Justice, in accordance with Section XVI of this Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Decree. No transfer of ownership or operation of the Facility, whether in compliance with this Paragraph or otherwise, shall relieve South Bend of its obligation to ensure that the terms of the Decree are implemented.
5. South Bend shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties reasonably might include compliance with any provision of this Decree, and any contractor retained to perform work required pursuant to this

Consent Decree. South Bend shall condition any such contract on performance of the work in compliance with the terms of this Consent Decree.

6. In any action to enforce this Consent Decree, South Bend shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

### **III. OBJECTIVES**

7. The objectives of this Consent Decree include:
  - a. the objectives stated in Section 101(a) of the Act, 33 U.S.C. § 1251;
  - b. causing South Bend to come into and remain in compliance with the Clean Water Act;
  - c. causing South Bend to come into and remain in compliance with State Law; and
  - d. causing South Bend to come into and remain in compliance with South Bend's NPDES Permits.

### **IV. DEFINITIONS**

8. Terms used in this Consent Decree, including attached appendices, that are defined in the Act or in regulations promulgated pursuant to the Act or in South Bend's NPDES Permits shall have the meanings assigned to them in the Act or such regulations or South Bend's NPDES Permits, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, including attached appendices, the following definitions shall apply:
  - a. "ACS" shall mean American Community Survey data collected and analyzed by the United States Census Bureau;

- b. “Appendix A” shall mean Appendix A, Long Term Control Plan, referenced in Paragraph 10 of this Decree, which is attached to, and incorporated into this Decree;
- c. “Appendix B” shall mean Appendix B: Supplemental Environmental Project, referenced in Paragraph 16 of this Decree, which is attached to, and incorporated into this Decree;
- d. “Bowman Creek” shall mean a tributary to the St. Joseph River in St. Joseph County traversing through the City of South Bend in a northeasterly direction from the southwest portion of the City. Bowman Creek’s headwaters are at the confluence of Eberly and Auten Ditch located near Locust and Johnson Roads. Philips Ditch is a tributary to Bowman Creek from the southeast. Approximately three miles of Bowman Creek is located within the City limits. The Creek is a combination of open waters and closed conduits through the City and County;
- e. “Bypass,” “Bypasses,” or “Bypassed” shall mean the intentional diversion of waste streams from any portion of the treatment facility located at 3113 Riverside Drive in South Bend, Indiana;
- f. “CAFR” shall mean the Comprehensive Annual Financial Report or similar document that South Bend prepares in the normal course of its financial reporting each year;
- g. “cfu” shall mean colony forming units;



- h. “Clean Water Act” or “Act” shall mean the Clean Water Act, which is currently codified at 33 U.S.C. §§ 1251-1387, and all regulations promulgated thereunder, in effect at the time in question;
- i. “Collection System Model” shall mean the Storm Water Management Model that South Bend used while developing its Long Term Control Plan to simulate flow in South Bend’s sewer collection and conveyance system;
- j. “Complaint” shall mean the complaint filed by Plaintiffs in this case;
- k. “Conduit” shall mean the storage conduit for CSOs 029, 028, 027, 026, and 025 that South Bend is required to construct and put into service pursuant to Table 1 of Appendix A;
- l. “Consent Decree” or “Decree” shall mean this Amended Consent Decree and all attached appendices (listed in Section XXVII) except that references to the “original Consent Decree” in the “Whereas” clauses of this Amended Consent Decree refer to the consent decree that was entered on May 2, 2012 (Docket No.7). This Amended Consent Decree supersedes and replaces the original consent decree that was entered on May 2, 2012;
- m. “CSO” shall mean Combined Sewer Overflow;
- n. “CSO Control Measure(s)” shall mean the structural measures designed to eliminate, reduce, or mitigate the volume, frequency, or pollutant levels in the CSOs described in Table 1 of Appendix A;

- o. “CSO Control Policy” shall mean EPA’s “Combined Sewer Overflow (CSO) Control Policy,” which was published in the Federal Register on April 19, 1994 (59 Fed. Reg. 18688);
- p. “CSO Discharge” shall mean any discharge from any CSO Outfall identified in South Bend’s NPDES Permits;
- q. “CSOnet Measures” or “Smart Sewer System” shall mean the sensor network in South Bend’s sewer collection and conveyance system that maximizes use of that system for storage and conveyance of wet weather flows that otherwise need to be managed by infrastructure improvements to be implemented as described in Appendix A;
- r. “CSO Outfall” shall mean any point source that is specifically identified in South Bend’s NPDES Permits as a Combined Sewer Overflow or CSO Outfall;
- s. “Day” shall mean a calendar day unless expressly stated to be a Working Day. To compute any period of time pursuant to this Consent Decree in which the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day;
- t. “Design Criteria” shall mean the Design Criteria described in Table 1 of Appendix A;
- u. “Discharge Monitoring Report” shall mean any discharge monitoring report or monthly report of operations that South Bend is required to submit to IDEM on a monthly basis pursuant to South Bend’s NPDES Permits or State Law;

- v. “Effective Date” shall mean the date of entry of this Consent Decree by the Court after satisfaction of the public notice and comment procedures of 28 C.F.R. § 50.7;
- w. “End Date” as used in a column heading to Table 1 of Appendix A shall mean the date that construction is completed on all facilities within the relevant grouping and they are operating as designed;
- x. “EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States;
- y. “EPA’s Financial Capability Assessment Guidance” shall mean EPA’s February 1997 publication number EPA 832-B-97-004, entitled “Combined Sewer Overflows–Guidance for Financial Capability Assessment and Schedule Development;”
- z. “Facility” shall mean and include:
  - 1. any wastewater collection and conveyance system owned or operated by South Bend that is designed to collect and convey domestic, commercial, and industrial sewage to a wastewater treatment plant or to a combined sewer overflow structure;
  - 2. any wastewater treatment plant owned or operated by South Bend;
  - 3. any combined sewer overflow structure owned or operated by South Bend; and
  - 4. any combined sewer overflow structure to which South Bend directs or conveys the flow of domestic, commercial, and industrial sewage or at which such sewage from South Bend users comes to be found;

- aa. “Federal Census” shall mean census data and analysis published by the United States Census Bureau every 10 years;
- bb. “gpm” shall mean gallons per minute;
- cc. “GPS” shall mean global positioning system;
- dd. “Green Infrastructure Measures,” “Green Stormwater Infrastructure,” and “GSI” shall mean the range of stormwater control measures that use plant systems, soil systems, permeable pavement, or stormwater management, harvest and reuse, to store, infiltrate, evapotranspire, or reuse stormwater and reduce flows to the combined sewer system, thereby reducing the volume of wet weather flows that otherwise would need to be stored in Storage Tanks, the Conduit, or the Parallel Interceptor that South Bend is required to construct and put into service pursuant to Table 1 of Appendix A. Green Infrastructure Measures may include without limitation extended detention wetland areas, green roofs, and cisterns;
- ee. “IDEM” shall mean the State of Indiana Department of Environmental Management;
- ff. “Indiana” shall mean the State of Indiana;
- gg. “Interest” shall mean interest calculated at the rate established by the Secretary of the Treasury, pursuant to 28 U.S.C. § 1961;
- hh. “lf” shall mean linear feet;
- ii. “Long Term Control Plan” and “LTCP” shall mean Appendix A, Long Term Control Plan, referenced in Paragraph 10 of this Decree, which is attached to, and incorporated into this Decree;

- jj. “LS” shall mean Lift Station;
- kk. “MG” shall mean million gallons;
- ll. “MGD” shall mean millions of gallons per day;
- mm. “MHI” shall mean median household income;
- nn. “ml” shall mean milliliter;
- oo. “NPDES Permits” shall mean South Bend’s National Pollution Discharge Elimination System (NPDES) Permit No. IN0024520 issued for South Bend’s publicly owned treatment works and the separate NPDES Permit No. INMO24520, issued for South Bend’s CSO Discharges and CSO Outfalls, and any such permits that succeed those permits in effect at a particular time in question;
- pp. “Nine Minimum Controls” shall mean the Nine Minimum Controls set forth in the CSO Control Policy and discussed in EPA’s May 1995 publication entitled “Combined Sewer Overflows; Guide for Nine Minimum Controls;”
- qq. “Overflow Event” shall mean one or more overflows from the combined sewer system resulting from a single precipitation event. If multiple outfall pipes overflow during a single precipitation event, those overflows constitute one Overflow Event;
- rr. “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral;
- ss. “Parallel Interceptor” shall mean the parallel interceptor for storage and conveyance for CSOs 006, 002, 001, 044, and 045 that South Bend is required to construct and put into service pursuant to Table 1 of Appendix A;

- tt. “Party” or “Parties” shall mean the United States, Indiana, and South Bend, or any of them;
- uu. “Performance Criteria” shall mean the Performance Criteria described in Table 2 of Appendix A;
- vv. “Plaintiffs” shall mean the United States and Indiana;
- ww. “Residential Indicator” shall mean the Residential Indicator described in Section III of EPA’s Financial Capability Assessment Guidance;
- xx. “RTB” shall mean Retention Treatment Basin;
- yy. “RTC” shall mean Retention Time Control;
- zz. “Section” shall mean a portion of this Decree identified by a roman numeral;
- aaa. “SEP” shall mean the Supplemental Environmental Project referenced in Paragraph 16 of this Decree and described in Appendix B, which is attached to, and incorporated into this Decree;
- bbb. “South Bend” shall mean the City of South Bend, Indiana;
- ccc. “SSI” shall mean South Shore Interconnect;
- ddd. “Start Date” as used in a column heading to Table 1 of Appendix A shall mean the date that South Bend has an engineer under contract to design the initial facility within the relevant grouping;
- eee. “State Law” shall mean the applicable provisions of Title 13 of the Indiana Code and Title 327 of the Indiana Administrative Code;
- fff. “St. Joseph River WISE Sampling Program” shall mean the St. Joseph River Watershed Initiative for a Safer Environment Sampling Program, the data from

which is available on a website maintained by the Water Environment Foundation;

- ggg. “St. Joseph River Model” shall mean the Branched Lagrangian Transport Model used to model water quality in the St. Joseph River;
- hhh. “Storage Tanks” shall mean the Memorial Park storage tank, Randolph and Sampson storage tank, WWTP storage tank, and the Brownfield Park storage tank that are listed in Appendix A;
- iii. “STORET” shall mean EPA’s storage and retrieval database;
- jjj. “Submit,” “Submits,” or “Submitted” shall mean transmitting by email to the addressees and the email addresses specified in Paragraph 71 of this Decree;
- kkk. “Subparagraph” shall mean a portion of this Consent Decree and appendices identified by a lower case letter;
- lll. “Ten State Standards” shall mean Recommended Standards for Wastewater Facilities; Policies for the Design, Review, and Approval of Plans and Specifications for Wastewater Collection and Treatment Facilities, A Report of the Wastewater Committee of the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (Wastewater Committee) published by Health Research Incorporated, Health Education Services Division, Post Office Box 7126, Albany, New York 12224. As of 2004, the Wastewater Committee was comprised of the following member states and province: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, New York, Ohio, Ontario, Pennsylvania, and Wisconsin;

- mmm. “Typical Year” shall mean the amount, intensity, and frequency of rainfall or other precipitation, and the St. Joseph River flow rates, that occurred during 1992;
- nnn. “UAA” shall mean Use Attainability Analysis;
- ooo. “Unlisted Discharge” shall mean any discharge to waters of Indiana or waters of the United States from the Facility, from or through any point source that is not specifically identified in the NPDES Permits as a Combined Sewer Overflow or CSO outfall;
- ppp. “United States” shall mean the United States of America acting on behalf of EPA;
- qqq. “USGS” shall mean the United States Geological Survey;
- rrr. “UV Disinfection” shall mean a system that uses ultraviolet light to disinfect water;
- sss. “Water Quality Based Requirements” shall mean numeric and narrative effluent limitations for CSO Discharges in South Bend’s NPDES Permits that are based on, derived from, or implement federally-approved WQS for the States of Indiana and Michigan, as applicable;
- ttt. “Working Day” shall mean a day other than a Saturday, Sunday, or federal holiday;
- uuu. “WQS” shall mean applicable water quality standards in effect at a particular time, and in a particular location, in question; and
- vvv. “WWTP” shall mean South Bend’s Wastewater Treatment Plant.



**V. COMPLIANCE REQUIREMENTS**

**A. NINE MINIMUM CONTROLS**

9. South Bend shall comply with the provisions in the NPDES Permits pertaining to the Nine Minimum Controls including without limitation provisions pertaining to implementation of South Bend's CSO Operational Plan (Operational Plan) and any revisions to the Operational Plan.

**B. LONG TERM CONTROL PLAN**

10. South Bend shall comply with the requirements of Appendix A, Long Term Control Plan.
11. Requirements After Completing the Long Term Control Plan. After completing all requirements of the Long Term Control Plan:
- a. South Bend shall properly operate and maintain the Facility including all improvements and other CSO Control Measures implemented pursuant to the Long Term Control Plan;
  - b. South Bend shall have no Unlisted Discharges;
  - c. South Bend's remaining CSO Discharges, if any, shall comply with the Clean Water Act, State Law, and South Bend's NPDES Permits; and
  - d. South Bend shall have eliminated Bypasses or, to the extent South Bend demonstrates that there are no feasible alternatives for eliminating Bypasses, any remaining Bypasses shall meet the conditions governing Bypass in South Bend's NPDES Permits and any discharges of Bypassed flow shall meet all applicable narrative and numeric effluent limitations in South Bend's NPDES Permits.

**C. OTHER PROVISIONS**

**1. Permits**

12. If any compliance obligation under this Decree requires South Bend to obtain a federal, state, or local permit or approval, South Bend shall submit timely and complete applications and make best efforts to obtain all such permits or approvals. South Bend may seek relief under the provisions of Section XI (Force Majeure) of this Consent Decree for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if South Bend has Submitted timely and complete applications and has made best efforts to obtain all such permits or approvals.
13. Subject to South Bend's right to seek relief pursuant to the provisions of Paragraph 12 and Section XI (Force Majeure) of this Decree, the pendency or outcome of any proceeding concerning issuance, reissuance, or modification of any NPDES permit shall not affect or postpone South Bend's responsibilities under this Decree.

**2. Funding and Other Delays**

14. South Bend's compliance with the requirements of this Consent Decree is not conditioned on the receipt of federal or state grant funds. Additionally, a failure to comply with, or a delay in complying with, any requirement of this Consent Decree shall not be excused by the lack of federal or state grant funds including without limitation construction grants and State Revolving Loan Funds, or any other grants or loans, or by any delay in processing any applications for such funds, subject to South Bend's right to seek relief pursuant to the provisions of Section XI (Force Majeure) of this Decree.

15. Delays caused by inadequate facility planning or plans and specifications on the part of South Bend shall not be cause for extension of any required compliance date in this Consent Decree.

**VI. SUPPLEMENTAL ENVIRONMENTAL PROJECT [COMPLETED]**

16. South Bend shall perform a SEP in accordance with all requirements of Appendix B: Supplemental Environmental Project, which is attached to, and incorporated into this Decree. When performing the SEP, South Bend shall spend not less than \$75,000 in eligible SEP costs. Eligible SEP costs include the cost of planning and implementing the SEP, but do not include overhead, depreciation or wear and tear of equipment owned by South Bend used to perform the SEP, administrative expenses, legal fees, and contractor oversight expenses.
17. South Bend is responsible for satisfactorily completing the SEP in accordance with the requirements of this Decree, including Appendix B. South Bend may use contractors or consultants to plan or perform the SEP.
18. Regarding the SEP, South Bend certifies the truth of each of the following:
  - a. as of the date that South Bend executes this Decree, South Bend is not required to perform or develop the SEP by any federal, state, or local law or regulation, nor is South Bend required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum;
  - b. the SEP is not a project that South Bend was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this Decree;

- c. South Bend has not received, and is not negotiating to receive, credit for the SEP in any other enforcement action; and
  - d. South Bend will not receive any reimbursement for any portion of the SEP from any other person.
19. SEP Completion Report. Within 30 days of the deadline for completing the SEP established pursuant to Paragraphs 4-6 of Appendix B, South Bend shall submit a SEP Completion Report to the United States and Indiana in accordance with Section XVI of this Decree (Notices). The SEP Completion Report shall contain the following information:
- a. a detailed description of the SEP as implemented;
  - b. a description of any problems encountered in completing the SEP and the solutions to those problems;
  - c. an itemized list of all eligible SEP costs;
  - d. certification that South Bend fully implemented the SEP pursuant to the provisions of this Decree, including Appendix B; and
  - e. a description of the environmental and public health benefits resulting from performance of the SEP with a quantification of the benefits and pollutant reductions if feasible.
20. In addition to the information described in the preceding Paragraph, either the United States or Indiana, in their sole discretion, may require South Bend to submit additional information to determine the adequacy of SEP completion or eligibility of SEP costs.

21. After receiving the SEP Completion Report, the United States and Indiana shall give South Bend written notification regarding whether South Bend has completed the SEP as required by this Consent Decree, including Appendix B. If South Bend has not completed the SEP in accordance with all requirements, deadlines, and schedules in this Section and Appendix B, or if the amount that South Bend spent to perform the SEP is less than \$75,000, the United States or Indiana may seek stipulated penalties pursuant to Paragraphs 34 and 38 of this Decree.
22. Disputes concerning the satisfactory performance of the SEP; the amount of eligible SEP costs; or the potential disputes described in Paragraph 6 of Appendix B may be resolved pursuant to Section XII (Dispute Resolution) of this Decree. No other disputes arising under this Section shall be subject to Dispute Resolution.
23. Each submission required under this Section or Appendix B shall be signed by a South Bend official with knowledge of the SEP and shall bear the certification language in Paragraph 30 of this Decree.
24. Any public statement, oral or written, in print, film, or other media, made by South Bend or its representatives making reference to the SEP required by this Decree shall include the following language: “This project was undertaken in connection with the settlement of an enforcement action, *United States and the State of Indiana v. City of South Bend, Indiana*, taken on behalf of the United States Environmental Protection Agency and the Indiana Department of Environmental Management pursuant to the Clean Water Act.”

**VII. CIVIL PENALTIES [COMPLETED]**

25. Within 30 Days after the Effective Date of this Consent Decree, South Bend shall pay the United States the sum of \$44,100 as a civil penalty in the manner specified in Section X (Payment and Related Matters).
26. Within 30 Days after the Effective Date of this Consent Decree, South Bend shall pay Indiana the sum of \$44,100 as a civil penalty in the manner specified in Section X (Payment and Related Matters).

**VIII. REPORTING REQUIREMENTS**

27. South Bend shall submit the following reports:
  - a. After lodging of this Decree, and until termination of this Decree pursuant to Section XXIV, South Bend shall Submit a Semi-Annual Report by July 31 of each year for the preceding six months between January 1 and June 30; and by January 31 of each year for the preceding six months between July 1 and December 31. The Semi-Annual Reports shall include:
    1. an identification of all deadlines that this Consent Decree required South Bend to meet during the six-month period, a statement regarding whether and to what extent South Bend met those requirements, and the reasons for any noncompliance. Notification to the United States and Indiana of any anticipated delay in meeting a deadline shall not, by itself, excuse the delay;

2. a general description of the work completed within the six-month period, and a projection of work to be performed pursuant to this Consent Decree during the next six-month period;
3. information generated in accordance with the requirements in Appendix A, to the extent that South Bend has generated any such information during the prior six-month period, including without limitation:
  - (i) a detailed summary of South Bend's efforts to collect and analyze rainfall, sewer response, and St. Joseph River water quality data pursuant to the requirements of section 2.2 of Appendix A;
  - (ii) a detailed summary of monitoring data generated pursuant to the requirements of section 2.2 of Appendix A;
  - (iii) a detailed summary of South Bend's Collection System Model calibration and validation efforts conducted pursuant to section 2.3.1 of Appendix A; and
  - (iv) a detailed summary of South Bend's efforts to update, calibrate, and validate the St. Joseph River Model pursuant to section 2.4.1 of Appendix A; and
4. copies of all Discharge Monitoring Reports and other reports pertaining to CSO Discharges and Bypasses that South Bend Submitted to IDEM in accordance with South Bend's NPDES Permits during the six-month period; and

- b. If South Bend violates any requirement of this Consent Decree, South Bend shall Submit written notice to the United States and Indiana of such violation and its likely duration within ten Working Days of the day South Bend first became aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or planned, to prevent or minimize the violation. If the cause of the violation cannot be fully explained at the time the notice is due, South Bend shall include a statement to that effect in the notice. South Bend shall investigate to determine the cause of the violation and then shall submit an amendment to the notice, including a full explanation of the cause of the violation, within 30 Days of the day South Bend becomes aware of the cause of the violation. Nothing in this Paragraph 27 or Paragraph 28 of this Consent Decree relieves South Bend of its obligation to provide the requisite notice for purposes of Section XI (Force Majeure).
28. In the case of any violation or other event that may pose an immediate threat to the public health or welfare or the environment, South Bend shall notify EPA and Indiana by email to the addressees and email addresses specified in Paragraph 71 of this Decree as soon as possible, but not later than 24 hours after South Bend first knew of, or by the exercise of due diligence, should have known of, the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.
29. South Bend shall Submit all notices to the persons designated in Section XVI of this Consent Decree (Notices).



30. Each report that South Bend Submits pursuant to Section VI (Supplemental Environmental Project) or Paragraph 27 of this Decree shall be signed by an appropriate South Bend official and include the following certification:

I certify under penalty of law that this document and its attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted . Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

31. The reporting requirements of this Consent Decree do not relieve South Bend of any reporting obligations required by the Clean Water Act or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.
32. The United States and Indiana may use any information generated or provided pursuant to this Consent Decree in any proceeding to enforce the provisions of this Consent Decree, in any proceeding pursuant to Section XII (Dispute Resolution) of this Decree, and as otherwise permitted by law. South Bend shall not object to the admissibility into evidence of information submitted by South Bend or its agents in any of the proceedings described in the preceding sentence.

**IX. STIPULATED PENALTIES**

33. If South Bend fails to pay the penalties required pursuant to Section VII of this Decree (Civil Penalties) when due, South Bend shall pay, in the manner specified in Section X

(Payment and Related Matters), a stipulated penalty of \$2,000 per day for each day that the payment is late.

34. SEP Compliance.

- a. In all cases, after completing the SEP required by Paragraph 16 and Appendix B of this Decree, if South Bend has spent less than \$75,000 in eligible SEP costs, South Bend shall pay a stipulated penalty equal to the difference between the amount of total eligible SEP costs incurred by South Bend and \$75,000.
- b. If South Bend Submits a SEP Completion Report to the United States and Indiana pursuant to Paragraph 19 of this Consent Decree, but does not complete the SEP as required by this Consent Decree, including Appendix B, South Bend shall pay a stipulated penalty of \$7,500 in addition to any stipulated penalty required by Subparagraph a of this Paragraph;
- c. If South Bend halts or abandons work on the SEP, South Bend shall pay a stipulated penalty of \$15,000 in addition to any penalty required by Subparagraph a of this Paragraph;
- d. If South Bend fails to comply with the required schedule for completing the SEP established pursuant to Paragraphs 4-6 of Appendix B or the deadline for submitting a SEP Completion Report pursuant to Paragraph 19 of this Decree,

South Bend shall pay stipulated penalties for each failure to meet an applicable deadline as follows:

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u>                |
|--------------------------------------|---|
| \$500                                | 1 <sup>st</sup> through 30 <sup>th</sup> day  |
| \$2,000                              | 31 <sup>st</sup> through 59 <sup>th</sup> day |
| \$4,000                              | 60 <sup>th</sup> day and beyond               |

Such penalties shall accrue from the date that South Bend failed to meet an applicable deadline, until compliance with the requirement is achieved.

35. South Bend shall be liable for Stipulated Penalties to be paid to the United States and Indiana as specified below, unless excused under Section XI (Force Majeure) of this Decree. A violation includes failing to perform any obligation required by this Decree, including the Nine Minimum Controls Compliance Plan, Long Term Control Plan, or any Supplemental Compliance Plan required by this Decree, and any schedules in those plans, according to all applicable requirements of this Decree and within the specified schedules established by, or approved pursuant to this Decree.

36. Reporting Requirements and Other Requirements.

The following Stipulated Penalties shall accrue per violation per day for each violation of the requirements of this Consent Decree identified in Subparagraphs a and b of this Paragraph:

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u>                |
|--------------------------------------|---|
| \$500                                | 1 <sup>st</sup> through 30 <sup>th</sup> day  |
| \$1,000                              | 31 <sup>st</sup> through 59 <sup>th</sup> day |
| \$2,000                              | 60 <sup>th</sup> day and beyond               |

a. Violation of any provision in Section VIII (Reporting Requirements) of this Consent Decree; and

b. Violation of any provision of this Consent Decree not specified in Paragraph 33, Paragraph 34, or the next Paragraph of this Decree.

37. Substantive Requirements.

The following Stipulated Penalties shall accrue per violation per day for each violation of the requirements of Section V (Compliance Requirements) of this Consent Decree but stipulated penalties for violations of Paragraph 11 of this Decree shall not begin to accrue less than six months after South Bend completes construction of the CSO Control Measures required by Section 1 of Appendix A:

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u>                |
|--------------------------------------|---|
| \$1,000                              | 1 <sup>st</sup> through 14 <sup>th</sup> day  |
| \$2,000                              | 15 <sup>th</sup> through 30 <sup>th</sup> day |
| \$4,000                              | 31 <sup>st</sup> day and beyond               |

38. Stipulated Penalties pursuant to this Section shall begin to accrue on the day after performance is due or on the day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated Penalties shall accrue simultaneously for separate violations of this Consent Decree. Within 30 Days of receiving a written demand from either the United States or Indiana, South Bend either shall pay any stipulated penalties in the manner specified in Section X (Payment and Related Matters), or Submit a written Notice of Dispute to the United States and Indiana pursuant to Paragraph 50 of this Decree. If South Bend fails to Submit a written Notice of Dispute within the time required by this Paragraph, South Bend shall thereafter be forever barred from disputing the stipulated penalties specified in the written demand from the United States or Indiana. The United States, or Indiana, or both may seek Stipulated Penalties under this Section. Either sovereign may waive Stipulated Penalties, or reduce the amount of Stipulated Penalties sought, in the exercise of their unreviewable discretion, and in accordance with this Paragraph. Where both sovereigns seek Stipulated Penalties for the same violation of this Consent Decree, South Bend shall pay 50 percent to the United States and 50 percent to Indiana. Where only one sovereign demands Stipulated Penalties for a violation, and the other sovereign does not join in the demand within ten Working Days of receiving the demand, or timely joins in the demand but subsequently elects to waive or reduce Stipulated Penalties for that violation, South Bend shall pay the Stipulated Penalties due for the violation to the sovereign making the initial demand, less any amount paid to the other sovereign. The determination of one sovereign not to seek Stipulated Penalties, or

subsequently to waive or reduce the amount sought, shall not preclude the other sovereign from seeking Stipulated Penalties.

39. Stipulated penalties shall continue to accrue as provided in the preceding Paragraph during any Dispute Resolution but need not be paid until the following:
- a. if the dispute is resolved by a written agreement or by a decision by Plaintiffs that is not appealed to the Court, South Bend shall pay accrued penalties determined to be owing within 30 Days of the date that South Bend signs the written agreement or receives Plaintiffs' decision;
  - b. if the dispute is resolved because the position that South Bend advocated in a Notice of Dispute Submitted to Plaintiffs during informal dispute resolution is deemed to be rejected by Plaintiffs pursuant to Paragraph 50 of this Decree, and South Bend does not seek judicial review within the time provided in Paragraph 54 of this Decree, South Bend shall pay accrued penalties determined to be owing within 51 Days of the date that South Bend Submitted the Notice of Dispute to Plaintiffs;
  - c. if South Bend seeks judicial review pursuant to Paragraph 54 of this Decree and either the United States or Indiana prevails in whole or in part, South Bend shall pay all accrued penalties that the court determines to be owing within 60 Days of the date of the court's decision or order, except as provided in Subparagraph d of this Paragraph; or

d. if any Party appeals the district court's decision, South Bend shall pay, within 20 Days of the date of the final appellate court decision, all accrued penalties that the appellate court determines to be owing.

40. If South Bend receives a written demand for stipulated penalties from either the United States or Indiana between the date of lodging and the Effective Date of this Consent Decree, South Bend shall pay the stipulated penalties within 30 Days of the Effective Date of this Decree in the manner specified in Section X (Payment and Related Matters).

41. Subject to the provisions of Section XIV of this Consent Decree (Effect of Settlement/Reservation of Rights), the Stipulated Penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States and Indiana for South Bend's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Clean Water Act or State Law, South Bend shall be allowed a credit, for any Stipulated Penalties paid, against any statutory penalties imposed for such violation.

**X. PAYMENT AND RELATED MATTERS**

42. South Bend shall make the payments to the United States required by Section VII (Civil Penalties) and Section IX (Stipulated Penalties) by FedWire Electronic Funds Transfer to the United States Department of Justice (DOJ) in accordance with instructions to be provided to South Bend by the Financial Litigation Unit of the United States Attorney's Office for the Northern District of Indiana. At the time of payment, South Bend simultaneously shall Submit written notice of payment and a copy of any transmittal documentation (which should reference United States Attorney's Office File

Number 2018V00156; United States Department of Justice Reference

Number 90-5-1-1-08182; case number 3:11CV505; and state that the payment is for either a Civil Penalty or Stipulated Penalties) to the United States in accordance with Section XVI of this Decree (Notices).

43. South Bend shall make the payments to Indiana required by Section VII (Civil Penalties) and Section IX (Stipulated Penalties) by certified check payable to the “Indiana Department of Environmental Management Special Fund” and Submitted to:

Cashier  
Indiana Department of Environmental Management  
Post Office Box 7060  
Indianapolis, Indiana 46207-7060

At the time of payment, South Bend simultaneously shall Submit a copy of the check and any transmittal documentation (which should reference United States Attorney’s Office File Number 2018V00156; case number 3:11CV505; and state that the payment is for either a Civil Penalty or Stipulated Penalties) to Indiana in accordance with Section XVI of this Decree (Notices).

44. If South Bend fails to pay Stipulated Penalties according to the terms of this Consent Decree, South Bend shall be liable for Interest on such penalties accruing as of the date payment became due. If South Bend invokes Dispute Resolution regarding a written demand for stipulated penalties in the manner specified, and by the deadline specified in Paragraph 38 of this Consent Decree, however, South Bend shall not be liable for Interest from the date that South Bend invokes Dispute Resolution through the date that any payment becomes due pursuant to Section XII (Dispute Resolution) of this Decree.



**XI. FORCE MAJEURE**

45. A “force majeure event” is any event beyond the control of South Bend, its contractors, or any entity controlled by South Bend that delays or prevents the performance of any obligation under this Consent Decree despite South Bend’s best efforts to fulfill the obligation. “Best efforts” includes anticipating any potential force majeure event and addressing the effects of any such event (a) as it is occurring and (b) after it has occurred, to prevent or minimize any resulting delay to the greatest extent possible. “Force Majeure” does not include South Bend’s financial inability to perform any obligation under this Consent Decree.
46. South Bend shall notify EPA and Indiana by email to the addressees and email addresses specified in Paragraph 71 of this Decree as soon as possible but not later than 7 Days after the time South Bend first knew of, or by the exercise of due diligence, should have known of, a claimed force majeure event. Within 7 Days thereafter, South Bend shall provide in writing to the United States and Indiana to the addressees and email addresses in Paragraph 71 of this Decree an explanation and description of the reasons for the delay; the anticipated duration of the delay; South Bend’s past and proposed actions to prevent or minimize the delay; a schedule for implementing any measures to prevent or mitigate the delay or the effect of the delay; and South Bend’s rationale for attributing the delay to a force majeure event. Failure to provide the notices required by this Paragraph shall preclude South Bend from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure.

47. If Plaintiffs agree that a force majeure event has occurred, the United States and Indiana may agree to extend the time for South Bend to perform the affected requirements for the time necessary to complete those obligations. An extension of time to perform obligations affected by a force majeure event shall not, by itself, extend the time to perform any other obligation. If Plaintiffs agree to an extension of time, the appropriate modification shall be made pursuant to Section XIX of this Consent Decree (Modification).

48. If Plaintiffs do not agree that a force majeure event has occurred, or does not agree to the extension of time sought by South Bend, the position of the United States shall control unless South Bend invokes Dispute Resolution under Section XII of this Consent Decree. In any such dispute, South Bend bears the burden of proving, by a preponderance of the evidence, that:

- a. each claimed force majeure event is a force majeure event;
- b. South Bend gave the notices required by Paragraph 46;
- c. the force majeure event caused any delay that South Bend claims was attributable to that event; and
- d. South Bend exercised best efforts to prevent or minimize any delay caused by the event.

## **XII. DISPUTE RESOLUTION**

49. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Such procedures, however, shall not apply

to actions by the United States and Indiana to enforce obligations of South Bend that have not been disputed in accordance with this Section. South Bend's failure to seek resolution of a dispute under this Section shall preclude South Bend from raising any such issue as a defense to an action by the United States or Indiana to enforce any obligations of South Bend arising under this Decree.

50. Informal Dispute Resolution. Any dispute subject to dispute resolution under this Consent Decree first shall be the subject of informal negotiations. The dispute shall be considered to have arisen when South Bend Submits a written Notice of Dispute to the United States and Indiana. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 21 Days from the date the dispute arises unless the period is modified by written agreement. During the informal negotiation period, or any agreed extension of that period pursuant to this Paragraph, if the Parties do not resolve the issues raised in the Notice of Dispute with a written agreement, the position that South Bend advocated in the Notice of Dispute shall be deemed to be rejected by Plaintiffs. Such resolution of the dispute shall be binding unless South Bend Submits to the United States and Indiana a written Statement of Position in accordance with the Requirements of Paragraph 51 this Decree within 30 Days after the conclusion of the informal negotiation period.

51. Formal Dispute Resolution. To invoke formal dispute resolution, South Bend shall, within in the time period required by Paragraph 50 of this Decree, Submit to the United States and Indiana a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis,

or opinion supporting South Bend's position and any supporting documentation relied on by South Bend.

52. Plaintiffs shall Submit their Statement of Position to South Bend within 60 Days of receipt of South Bend's Statement of Position. Plaintiffs' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied on by Plaintiffs. Plaintiffs' Statement of Position is binding on South Bend unless South Bend files a motion for judicial review of the dispute in accordance with Paragraph 54 of this Decree.
53. An administrative record of the dispute shall be maintained by EPA and shall contain all Statements of Position, including supporting documentation, Submitted pursuant to Paragraphs 51 and 52 of this Decree. Where appropriate, EPA may allow the Parties to Submit supplemental statements of position.
54. Judicial Dispute Resolution. South Bend may seek judicial review of the dispute by filing with the United States District Court for the Northern District of Indiana (NDIN) in the captioned case and serving on Plaintiffs a motion requesting judicial resolution of the dispute no later than 30 days after Plaintiffs Submit their Statement of Position to South Bend. Plaintiffs shall respond to South Bend's motion within 30 days after receiving service of South Bend's motion, or any extension of time to which the parties agree or the Court orders. South Bend may file a reply memorandum within the time period allowed by NDIN's Local Rules, or any extension of time to which the parties agree or the Court orders.

55. Standard of Review. In any motion for judicial review, South Bend shall have the burden of demonstrating, based on the administrative record, that Plaintiffs' position is arbitrary and capricious or otherwise not in accordance with law.
56. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of South Bend under this Consent Decree unless and until final resolution of the dispute so provides. Stipulated Penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 39 of this Consent Decree. If South Bend does not prevail on the disputed issue, Stipulated Penalties shall be assessed and paid as provided in Section IX (Stipulated Penalties).

### **XIII. INFORMATION COLLECTION AND RETENTION**

57. The United States, Indiana, and their representatives including attorneys, contractors, and consultants, shall have the right of entry to any facility covered by this Consent Decree, at all reasonable times upon presentation of credentials, to:
- a. monitor the progress of activities required under this Consent Decree;
  - b. verify any data or information Submitted to the United States or Indiana in accordance with this Consent Decree, NPDES Permits, the Clean Water Act, or State Law;
  - c. obtain samples and, upon request, splits of any samples taken by South Bend or its representatives, contractors, or consultants;
  - d. obtain documentary evidence, including photographs and similar data; and

- e. assess South Bend's compliance with this Consent Decree, NPDES Permits, the Clean Water Act, or State Law.

58. Splits of Samples.

- a. Upon prior request, South Bend shall provide EPA and Indiana or their authorized representatives splits of any samples taken by South Bend. Absent a prior request, upon timely request South Bend shall provide EPA and Indiana or their authorized representatives splits of any extant samples taken by South Bend. A request made after the holding time has expired shall not be considered timely.
- b. Upon prior request, EPA or Indiana shall provide South Bend or its authorized representatives splits of any samples taken by EPA or Indiana. Absent a prior request, upon timely request EPA or Indiana shall provide South Bend or its authorized representatives splits of any extant samples taken by South Bend. A request made after the holding time has expired shall not be considered timely.

59. South Bend shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all records and documents (including records or documents in electronic form) in South Bend's possession, custody, or control, or that come into the possession, custody, or control of South Bend or its contractors or agents, and that relate in any manner to South Bend's performance of its obligations pursuant to this Consent Decree. This record retention requirement shall apply regardless of any corporate or institutional document-retention policy to the contrary. At any time during this record-retention period, the United States or Indiana may request copies of any documents or records required to be maintained under this Paragraph. Within 30 Days of the date of

such a request, South Bend shall provide to the requesting Plaintiff all documents responsive to the request. If South Bend asserts that any of the requested documents are privileged, in lieu of producing the document(s) regarding which South Bend asserts a privilege, South Bend may, within 30 Days of the date of the request, provide to the requesting Plaintiff a privilege log containing the information required by the following Paragraph.

60. South Bend may assert that certain documents or records are privileged under the attorney-client privilege or any other privilege recognized by federal law. For each document regarding which South Bend asserts such a privilege, South Bend shall include the following information on a privilege log:

- a. the title of the document or record;
- b. the date of the document or record;
- c. the name and title of the author of the document or record;
- d. the name and title of each addressee or recipient;
- e. a description of the subject of the document or record; and
- f. the privilege asserted by South Bend.

Nevertheless, South Bend shall not withhold on the grounds that they are privileged any documents or records created or generated pursuant to the requirements of this Consent Decree.

61. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information or documents, held by the United States or Indiana pursuant to applicable federal or state laws, regulations, or permits, nor does this Decree limit or

affect any duty or obligation of South Bend to maintain documents, records, or information imposed by applicable federal or state laws, regulations, or permits.

**XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS**

62. This Consent Decree resolves the civil claims of the United States and Indiana for the violations alleged in the Complaint filed in this case through December 29, 2011.

63. This Consent Decree shall not be construed to prevent or limit the rights of the United States or Indiana to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in this Consent Decree.

64. South Bend is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and South Bend's compliance with this Consent Decree shall be no defense to any action commenced pursuant to those laws, regulations, or permits. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. The United States and Indiana do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that South Bend's compliance with any aspect of this Consent Decree will result in compliance with any provisions of the Clean Water Act, State Law, or South Bend's NPDES Permits.

65. Nothing in this Consent Decree including the Appendix, which is attached to and incorporated into this Decree, or Plaintiffs' review or approval of any Nine Minimum Controls Compliance Plan, Post-Construction Monitoring Study Work Plan, Supplemental Compliance Plan, or other plan, Semi-Annual Report, Post-Construction



Monitoring Report, or other report, or document pursuant to this Decree, shall be construed as relieving South Bend of the obligation to comply with the Clean Water Act, State Law, or South Bend's NPDES Permits.

66. This Consent Decree does not limit or affect the rights of any Party against any third parties, not party to this Consent Decree, nor does this Decree limit the rights of third parties, not party to this Consent Decree, against South Bend, except as otherwise provided by law.
67. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party that is not a Party to this Consent Decree.
68. The United States and Indiana reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in this Decree.
69. In any subsequent administrative or judicial proceeding initiated by the United States or Indiana for injunctive relief, civil penalties, or other appropriate relief relating to the Facility, South Bend shall not assert, and may not maintain, any defense or claim based on the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based on any contention that the claims raised by the United States or Indiana in the subsequent proceeding were or should have been brought in this case, except with respect to claims that specifically were resolved pursuant to Paragraph 62 of this Decree.

**XV. COSTS**

70. The parties shall bear their own costs and attorneys' fees in this case and all other matters related to this Consent Decree, except that the United States and Indiana shall be entitled

to collect the costs and attorneys' fees incurred in any action necessary to collect any portion of the civil penalties or any portion of any Stipulated Penalties due, as specified in Paragraph 38, but not paid by South Bend.

## **XVI. NOTICES**

71. Unless otherwise specified in this Decree, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing to the addressees specified in Subparagraph 71.a, and transmitted by electronic mail (email) to the email addresses specified in Subparagraph 71.b; and, with respect to notifications, submissions, or communications from South Bend that include large attachments or files that might not be easily transmittable by email, also transmitted by a File Transfer Protocol (FTP) server established by South Bend in accordance with Subparagraph 71.c:

- a. Addressees: notifications, submissions, or communications required by this Consent Decree shall be addressed as follows:

If required to be sent to the United States:

If sent by United States Mail

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
United States Department of Justice  
Post Office Box 7611, Ben Franklin Station  
Washington, D.C. 20044-7611  
Re: DOJ No. 90-5-1-1-08182

And

United States Attorney  
Northern District of Indiana  
5400 Federal Plaza, Suite 1500  
Hammond, Indiana 46320  
Re: USAO File No. 2018V00156

And

Chief  
Water Enforcement Branch  
Enforcement and Compliance Assurance Division  
United States Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

If required to be sent to EPA:

Chief  
Water Enforcement Branch  
Enforcement and Compliance Assurance Division  
United States Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

If required to be sent to Indiana:

Chief, Compliance Branch Office of Water Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Post Office Box 6015  
Indianapolis, Indiana 46206

And

Chief, Enforcement Section  
Office of Legal Counsel  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Post Office Box 6015  
Indianapolis, Indiana 46206

If required to be sent to South Bend

Kieran Fahey, Director, LTCP Management  
Department of Public Works  
City of South Bend  
227 West Jefferson Boulevard  
1316 County-City Building  
South Bend, Indiana 46601

And

Corporation Counsel  
City of South Bend  
227 West Jefferson Boulevard, Suite 1200  
South Bend, Indiana 46601

- b. Email addresses: Notifications, submissions or communications required by this

Consent Decree shall be transmitted by email to the following email addresses:

To the United States:

eescdcopy.enrd@usdoj.gov  
Re: DJ No. 90-5-1-1-08182

And

wayne.ault@usdoj.gov  
Re: USAO File No. 2018V00156

And

R5weca@epa.gov and prichard.gary@epa.gov and patel.rajesh@epa.gov  
Re: South Bend Consent Decree

To EPA:

R5weca@epa.gov and prichard.gary@epa.gov and patel.rajesh@epa.gov  
Re: South Bend Consent Decree

To Indiana:

badmire@idem.in.gov  
dtennis@idem.in.gov

To South Bend:

kfahey@southbendin.gov  
cmdanie@southbendin.gov

- c. FTP Server. If South Bend provides a notification, submission or communication required under this Consent Decree that includes attachments or files that might not be easily transmittable by email because of their size or for other reasons, South Bend shall establish and utilize an FTP server to transmit the attachment(s) or file(s) to the United States, Indiana, and EPA. In those instances, the email transmission from South Bend shall state that the notification, submission or communication includes such attachments and files and shall include instructions for accessing the FTP server. South Bend shall make those files available on the FTP server for a minimum of 90 days from the date that South Bend transmits the email message with instructions for accessing the FTP server.

72. Any Party may change its designated notice addressees or notice email addresses provided above by written notice to the other Parties.

#### **XVII. EFFECTIVE DATE**

73. The Effective Date of this Consent Decree shall be the date on which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

#### **XVIII. RETENTION OF JURISDICTION**

74. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders

modifying this Decree, pursuant to Sections XII and XIX of this Decree, or effectuating or enforcing compliance with the terms of this Decree.

**XIX. MODIFICATION**

75. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by all the Parties. If the modification constitutes a material change to any term of this Decree, the modification only shall be effective after approval by the Court. The terms and schedules contained in Appendix A of this Decree may be modified upon written agreement of the Parties without Court approval, unless any such modification effects a material change to the terms of this Consent Decree or materially affects South Bend's ability to meet the requirements or objectives of this Decree.

**XX. RECONSIDERATION OF PERFORMANCE CRITERIA FOR *E. COLI***

76. South Bend may Submit to the United States and Indiana, requests for consideration of modified Performance Criteria for *E. Coli*. South Bend shall include in any request for consideration of modified Performance Criteria for *E. Coli* evidence demonstrating that the proposed modified Performance Criteria will be sufficient to ensure that South Bend meets any Water Quality Based Requirements that are based on, derived from, or implement the State of Michigan's federally-approved WQS, including any federally-approved revisions to WQS.
77. If, pursuant to this Section, the United States and Indiana grant South Bend's request for modified Performance Criteria for *E. coli*, the Parties shall reduce the agreement to a writing signed by an authorized representative of each Party.

78. If, pursuant to this Section, either the United States or Indiana deny in writing South Bend's request for modified Performance Criteria for *E. coli*, in whole or in part, or if more than 90 Days elapse from the date that South Bend Submits its request to the United States and Indiana and South Bend does not either (1) receive a written denial of South Bend's request from either the United States or Indiana; or (2) enter into a written agreement pursuant to the preceding Paragraph, South Bend may deem the request denied and invoke the dispute resolution procedures in Paragraphs 50-54 of this Consent Decree.
79. If South Bend invokes dispute resolution procedures pursuant to Paragraph 78 of this Section for a denial of a request for modified Performance Criteria for *E. coli*, the invocation of dispute resolution procedures shall not extend, postpone, or affect in any way any of South Bend's obligations pursuant to this Consent Decree unless and until final resolution of the dispute so provides.

**XXI. SCHEDULE RECONSIDERATION BASED ON FINANCIAL CIRCUMSTANCES**

80. No earlier than 5 years after the Effective Date, and on a maximum of one occasion every five years during the pendency of this Consent Decree, South Bend may Submit to the United States and Indiana a request for approval of an extension of up to a maximum of five years, less the length of any prior extension request granted, of the deadlines for completing any of the remaining requirements of Appendix A. South Bend shall include in any such schedule extension request evidence demonstrating that:
- a. South Bend actually has spent at least \$98,915,750 in 2007 Dollars complying with the requirements of Appendix A since the Effective Date;

- b. The Residential Indicator, when calculated in accordance with EPA's Financial Capability Assessment Guidance as modified by the requirements of Paragraph 81 of this Section and using the inputs described and defined in Paragraph 82 of this Section, and using a reasonable engineering estimate of the remaining costs of completing the requirements in Appendix A expressed in the value of dollars during the year that South Bend submits the schedule extension request, but excluding the cost of the Post-Construction Monitoring Program, exceeds 2.5%;
  - c. South Bend's Residential Indicator has increased by at least 0.2 percentage points determined by comparing the Residential Indicator on the date of the extension request to one of the following values:
    - 1. For the first extension request, a Residential Indicator of 2.41%; or
    - 2. For any subsequent request, South Bend's Residential Indicator as of the date of the most recent previous schedule extension request;
  - d. A description of each requirement and associated deadline in Appendix A for which South Bend seeks a schedule extension; and
81. Each requested schedule extension is as short as reasonably possible, but in no event would extend the schedule more than five years after the deadline for completing each specified requirement in Appendix A. To determine South Bend's MHI to calculate the Residential Indicator as required by the preceding Paragraph, South Bend shall use MHI data for the most recent year from either the Federal Census or ACS, whichever is the most current. If the most current ACS data includes both a one-year estimate and a three-year estimate of MHI, South Bend shall use the one-year estimate to determine South Bend's MHI.



82. To calculate and determine South Bend's Residential Indicator at the time a schedule extension request is Submitted, South Bend shall use the following inputs:
- a. Current wastewater and sewer annual operation and maintenance expenses calculated as total expenses less depreciation in South Bend's CAFR for the most recent year, but only if the CAFR accurately states South Bend's operation and maintenance expenses. If South Bend's CAFR for the most recent year either does not exist or does not accurately state South Bend's operation and maintenance expenses, South Bend shall calculate and determine this input with appropriate accounting records, including source documents, and submit to EPA and Indiana copies of the accounting records and source documents;
  - b. Current wastewater and sewer annual debt service calculated as the total principal and interest payments on bonds and notes from the financing activities section of the cash flow statement in South Bend's CAFR for the most recent year but only if the CAFR accurately reflects the principal and interest payments. If South Bend's CAFR for the most recent year either does not exist or does not accurately state South Bend's principal and interest payments, South Bend shall calculate and determine this input with appropriate accounting records, including source documents and shall submit to EPA and Indiana copies of the accounting records and source documents;
  - c. Reasonable documented engineering estimates projecting the increase in operation and maintenance expenses expected after completing the requirements in

Appendix A expressed in the value of dollars for the year during which South Bend submits the schedule extension request;

- d. The increased annual capital costs based on the expected financing of a reasonable, documented engineering estimate of the remaining costs of completing the requirements in Appendix A expressed in the value of dollars during the year that South Bend submits the schedule extension request. To support South Bend's calculation of this input, South Bend shall submit to EPA and Indiana an explanation of the basis for, and calculation of, the annual cost estimate and the engineering estimates, accounting records, and source documents on which South Bend relied to calculate this input;
- e. When calculating South Bend's residential share of wastewater treatment costs in accordance with EPA's Financial Capability Assessment Guidance, South Bend shall use the most recent year of Federal Census or ACS data and billing data regarding South Bend's customer base unless South Bend can demonstrate changes to its customer base not reflected in such data. South Bend also shall use the same ratio between total wastewater flow and residential infiltration and inflow that South Bend uses for rate setting purposes, if any, to calculate the residential share of wastewater treatment costs.
- f. When calculating the total number of households in South Bend's service area, South Bend shall count each single family house, and each unit in multi-family housing structures such as apartment buildings and duplexes, but shall not count households that have onsite sewage disposal systems and are not paying fees to

South Bend. To the extent that customer billing data does not accurately reflect the number of units in multi-family housing structures, South Bend shall use ACS data and Federal Census data to more accurately estimate the total number of households in South Bend's service area.

83. If, pursuant to this Section, the United States and Indiana grant South Bend's request for an extension for completing any of the deadlines in Appendix A, the Parties shall reduce the agreement to a writing signed by an authorized representative of each Party.
84. If, pursuant to this Section, either the United States or Indiana denies in writing South Bend's request for an extension for completing any of the deadlines in Appendix A, in whole or in part, or if more than 90 Days elapse from the date that South Bend Submits to the United States and Indiana its request for an extension of deadlines pursuant to this Section, and South Bend does not either: (1) receive a written denial of South Bend's schedule extension request from either the United States or Indiana; or (2) enter into a written agreement pursuant to the preceding Paragraph, South Bend may deem the request denied and invoke the dispute resolution procedures in Paragraphs 50-54 of this Consent Decree.
85. If South Bend invokes dispute resolution procedures pursuant to Paragraph 84 of this Section for a denial of a schedule extension request, the invocation of dispute resolution procedures shall not extend, postpone, or affect in any way any of South Bend's obligations pursuant to this Consent Decree unless and until final resolution of the dispute so provides.

## XXII. TERMINATION

86. South Bend may Submit to the United States and Indiana a written Request for Termination, with all necessary supporting documentation, only after South Bend:
- a. complies with all provisions of Section V (Compliance Requirements) of this Consent Decree;
  - b. complies with all provisions of Section VI (Supplemental Environmental Project) of this Consent Decree;
  - c. demonstrates that the CSO Control Measures in the Long Term Control Plan attached as Appendix A to this Consent Decree, as built or otherwise implemented, meet the Design Criteria for those CSO Control Measures required by the Long Term Control Plan;
  - d. demonstrates that the CSO Control Measures in the Long Term Control Plan attached as Appendix A to this Consent Decree, as operated, meet the Performance Criteria for those CSO Control Measures required by the Long Term Control Plan;
  - e. demonstrates that, from the time South Bend achieves compliance with South Bend's NPDES Permits and this Decree, South Bend thereafter has maintained continuous satisfactory compliance with South Bend's NPDES Permits and this Decree for a period of at least one year;
  - f. has paid the civil penalties required by Section VII (Civil Penalties) of this Decree; and has paid accrued Stipulated Penalties required by Section IX (Stipulated Penalties) of this Decree.

87. After Plaintiffs receive South Bend's written Request for Termination, the Parties shall confer informally concerning the Request for Termination and any disagreement that the Parties may have regarding whether South Bend has complied with the requirements for termination of this Consent Decree. If the United States and Indiana agree that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.
88. After the parties informally confer as required by the preceding Paragraph, if Plaintiffs do not agree that the Decree may be terminated, South Bend may deem the Request denied and invoke the dispute resolution procedures in Paragraphs 50-54 of this Consent Decree. This Consent Decree shall remain in effect pending resolution of any dispute unless and until the Court enters an Order terminating the Decree.

### **XXIII. PUBLIC PARTICIPATION**

89. This 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 the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. South Bend consents to entry of this Consent Decree without further notice.

### **XXIV. SIGNATORIES/SERVICE**

90. Each undersigned representative of South Bend, the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice on behalf of the United States, the Chief Operating Officer of the Indiana Attorney

General's Office on behalf of Indiana certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents.

91. This Consent Decree may be signed in counterparts, each of which constitutes an original and all of which constitute one and the same agreement, and the validity of the Consent Decree shall not be challenged on that basis. Facsimiles of signatures, and copies of signatures in electronic or physical form, all shall constitute original, acceptable, binding signatures for the purposes of this Agreement.
92. South Bend agrees not to oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified South Bend in writing that the United States no longer supports entry of the Decree.
93. South Bend agrees to accept service of process by mail, to the agent authorized to accept service on behalf of the City of South Bend indicated underneath the signatures of South Bend's representatives on this Consent Decree, with respect to all matters arising under or related to this Consent Decree and to waive the formal service requirements set forth in Rule 4 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including without limitation service of a summons.

#### **XXV. INTEGRATION/APPENDICES**

94. This Consent Decree, Appendix A, and Appendix B, constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersede all prior agreements and understandings, whether

oral or written, concerning the settlement embodied in this Decree. Other than Appendix A and Appendix B, which are attached to and incorporated into this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitute any part of this Decree or the settlement it represents, nor shall they be used in construing the terms of this Decree.

**XXVI. FINAL JUDGMENT**

95. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, Indiana, and South Bend.

**XXVII. APPENDICES**

96. The following appendices are attached to, and incorporated into this Decree:

- a. Appendix A, Long Term Control Plan, referenced in Paragraph 10 of this Decree, is attached to, and incorporated into, this Consent Decree.
- b. Appendix B, Supplemental Environmental Project, referenced in Paragraph 16 of this Decree, is attached to, and incorporated into, this Consent Decree.

Dated and entered this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

---

JON E. DEGUILIO  
UNITED STATES DISTRICT JUDGE  
Northern District of Indiana

THE UNDERSIGNED PARTIES enter into this Amended Consent Decree in  
*United States, et al. v. City of South Bend, IN*, No. 3:11CV505 (N.D. Ind.):

FOR THE UNITED STATES OF AMERICA

TODD KIM  
Assistant Attorney General  
Environment and Natural Resources Division  
United States Department of Justice

TINA L. NOMMAY  
Acting United States Attorney

Date: August 10, 2021

Wayne T. Ault  
WAYNE T. AULT  
Assistant United States Attorney  
Northern District of Indiana  
5400 Federal Plaza, Suite 1500  
Hammond, Indiana 46320  
Telephone: 219-937-5500  
Telecopy: 219-852-2770  
Internet Address: wayne.ault@usdoj.gov



THE UNDERSIGNED PARTIES enter into this Amended Consent Decree in  
*United States, et al. v. City of South Bend, IN*, No. 3:11CV505 (N.D. Ind.):

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date: \_\_\_\_\_

Nathan Mark  
Pollins

Digitally signed by Nathan Mark  
Pollins  
Date: 2021.08.05 15:59:24 -04'00'

\_\_\_\_\_  
MARK POLLINS  
Division Director  
Water Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
United States Environmental Protection Agency

THE UNDERSIGNED PARTIES enter into this Amended Consent Decree in  
*United States, et al. v. City of South Bend, IN*, No. 3:11CV505 (N.D. Ind.):

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date: \_\_\_\_\_

**T. Leverett Nelson** Digitally signed by T. Leverett Nelson  
Date: 2021.07.08 15:51:20 -05'00'

\_\_\_\_\_  
T. LEVERETT NELSON  
Regional Counsel  
Region 5  
United States Environmental Protection Agency

THE UNDERSIGNED PARTIES enter into this Amended Consent Decree in  
*United States, et al. v. City of South Bend, IN*, No. 3:11CV505 (N.D. Ind.):

Date: 8/16/21

FOR THE STATE OF INDIANA:

*Bruno Pigott*

BRUNO L. PIGOTT

Commissioner

Indiana Department of Environmental Management

Date: 8/12/2021

*Elizabeth Admire*

ELIZABETH ADMIRE

Attorney

Indiana Department of Environmental Management

100 North Senate Street

Post Office Box 6015

Indianapolis, Indiana 46206

Date: August 11, 2021

*Patricia Orloff Erdmann*

PATRICIA ORLOFF ERDMANN

Chief Counsel for Litigation

Office of the Indiana Attorney General

Indiana Government Center South, 5<sup>th</sup> Floor


302 West Washington Street

Indianapolis, Indiana 46204

THE UNDERSIGNED PARTIES enter into this Amended Consent Decree in  
*United States, et al. v. City of South Bend, IN*, No. 3:11CV505 (N.D. Ind.):

FOR THE CITY OF SOUTH BEND, INDIANA

Date: 08/11/2021

  
\_\_\_\_\_  
JAMES MUELLER  
Mayor

Agent authorized to accept service on behalf of the City of South Bend, Indiana:

Corporation Counsel  
City of South Bend, Indiana  
227 West Jefferson Boulevard, Suite 1200  
South Bend, Indiana 46601

# **APPENDIX A**

## Appendix A – Long Term Control Plan

### Section 1: CSO Control Measures

#### 1.1 Long Term Control Plan Goals and Requirements

The St. Joseph River is the reason for the City’s location and the source of its name. Over time it has transitioned from the physical driver for industry to a developing centerpiece for recreation and entertainment. The river connects many of the City’s parks and trails and is home to the East Race Waterway, the first man-made whitewater rafting course built in North America.

South Bend is fully committed to the continued implementation of a Long-term Control Plan to protect the St. Joseph River and achieve compliance with the Clean Water Act consistent with the principles set forth in the Environmental Protection Agency’s Combined Sewer Overflow (CSO) Control Policy. Key among those principle are the identification and implementation of community specific and cost-effective CSO controls necessary to meet Clean Water Act objectives and requirements.<sup>1</sup>

South Bend shall construct the CSO Control Measures specified in **Table-1** in accordance with the descriptions, Design Criteria and implementation schedule specified in **Table-1**. After completing construction of the CSO Control Measures, South Bend shall achieve the Performance Criteria specified in **Table-1**.

**TABLE-1**

**CSO Control Measures Description, Design Criteria<sup>1</sup>, Performance Criteria<sup>4</sup> and Implementation Schedule**

| Project                                | Description, Design Criteria, <sup>1</sup> and Performance Criteria <sup>4</sup>   | Start Date <sup>2</sup> | End Date <sup>3</sup> |
|--|--|-------------------------|-----------------------|
| WWTP Improvements                      | Expansion of the South Bend WWTP to provide peak wet weather capacity of 100 mgd.  | 07/2021                 | 12/2029               |
| CSO 029 Lift Station Modification      | Increase lift station capacity to 250 gpm (0.55 mgd)   | 09/2021                 | 12/2024               |
| WWTP Storage, Site Piping and Controls | Equalization basin and dewatering pumping station. Minimum size of 2.0 million gallons.  | 12/2021                 | 12/2025               |
| WWTP Storage, Site Piping and Controls | Re-routing of existing sewers to accommodate proposed equalization basin.  | 01/2025                 | 12/2029               |
| Randolph-Sampson RTB and Site Piping   | Below grade retention treatment basin and pumping station with provisions for screening, disinfection/dechlorination of overflow. Minimum size of 4.7 million gallons. | 01/2025                 | 12/2029               |

<sup>1</sup> *Combined Sewer Overflow (CSO) Control Policy*. Part VII Environmental Protection Agency. Federal Register Vol. 59, No. 75. April 19, 1994. Page 18689.

|   |   |         |         |
|---|---|---------|---------|
| Throttle Control at CSO 022                           | Actively controlled sluice gate on capture throttle to prevent overflows at CSO 48 near River Crossing #1   | 01/2025 | 12/2029 |
| Regulator/Throttle Improvements Upstream of East Race | Modifications to regulators/throttles at CSOs 014, 018, 021, 040  | 01/2025 | 12/2029 |
| Randolph-Sampson RTB and Site Piping                  | 90" diameter inlet and outlet sewers for Randolph-Sampson RTB   | 07/2025 | 12/2029 |
| Regulator Modifications for Randolph-Sampson RTB      | Modification to regulator at CSO 022  | 02/2026 | 12/2029 |
| Basin CSO 040, 041 Separation Sewer                   | 15" new storm sewer (975 lf), 18" new storm sewer (650 lf), 24" new storm sewer (650 lf) on Pleasant Avenue; 24" new storm sewer (700 lf) on Northside Blvd.                                      | 01/2027 | 12/2029 |
| Memorial Park RTB                                     | Below grade retention treatment basin and pumping station with provisions for screening, disinfection/dechlorination of overflow. Minimum size of 3.9 million gallons.                            | 01/2030 | 12/2035 |
| CSO Basin 019 GSI Improvements                        | Green Alley Improvements, Intersection Dry Wells. Green stormwater infrastructure improvements within Basin 019 will provide for the capture of at least 20,000 gallons for stormwater.           | 01/2030 | 12/2035 |
| CSO 001 Throttle Capacity Improvement                 | Increase dry weather throttle pipe capacity to capture an additional 15 MGD   | 03/2030 | 12/2035 |
| CSO Basin 039, 040 GSI Improvements                   | GSI unit drain improvements along Pleasant Avenue. Green stormwater infrastructure improvements within Basins 039 and 040 will provide for the capture of at least 14,500 gallons for stormwater. | 03/2030 | 12/2035 |
| Memorial Park Consolidation Sewers and Controls       | Large diameter sewers to collect and convey overflow from CSO Basins 031, 033, 035, 036, 037 to Memorial Park RTB; Segment from CSO 037 to tank increased to 78" diameter (2625 lf).              | 04/2030 | 12/2035 |

|   |   |         |         |
|---|---|---------|---------|
| Regulator Modifications for Memorial Park Consolidation Sewer | Modifications to regulators for CSO 031, 033, 035, 036, 037, 060  | 04/2030 | 12/2035 |
| CSO 019 Throttle Capacity Improvement                         | Increase throttle pipe capacity to maximize diversion to South Shore Interconnect Sewer (650 lf of 24" diameter sewer)  | 05/2030 | 12/2035 |
| River Crossing 2-3 Interconnect Sewer                         | 36" diameter interconnecting sewer (reduced from 66") between CSO 14 and River Crossing #2 serving as both conveyance and storage.  | 07/2030 | 12/2035 |
| Interceptor Replacement                                       | 24" diameter replacement for existing interceptor from CSO 020 to CSO 019 (1,800 lf)  | 10/2030 | 12/2035 |
| New River Crossing  | 48" diameter wet weather river crossing (500 lf) to direct excess flow from south side of river to Memorial Park RTB.   | 01/2031 | 12/2035 |
| Sluice Gate at CSO 18 Regulator Structure                     | Actively controlled modulating sluice gate operated to make effective use of storage in Basin 018 trunk sewer   | 04/2031 | 12/2035 |
| Interceptor Control Upstream of River Crossing #2             | Actively controlled interceptor isolation gate to regulate flow downstream and detain excess in Memorial Park RTB   | 07/2031 | 12/2035 |
| Brownfield Storage Tank                                       | Below grade retention treatment basin and pumping station with RTC gate and provisions for screening, disinfection/dechlorination of overflow. Minimum size of 2.0 million gallons.   | 01/2036 | 12/2038 |
| South Shore Interconnect Sewer                                | 84" diameter interconnecting sewer from Michigan Street LS to downstream end of River Crossing #5. Collects overflow from CSO Basins 006, 007, 008, 010, 011 and allows River Crossing #4 and the Michigan Street LS to be abandoned. | 01/2036 | 12/2038 |
| Regulator/Throttle Improvements Downstream of East Race       | Modifications to regulators/throttles at CSOs 003, 004, 006, 007, 025, 026, 027, 028  | 01/2036 | 12/2038 |
| CSO Basin 010 GSI Improvements                                | Sewer Separation, Green Alley Improvements, Rain Barrel Program. Green stormwater infrastructure improvements within Basin 010 will provide for the capture of at least 14,500 gallons for stormwater per rainfall event.             | 01/2036 | 12/2038 |



|  |  |         |         |
|--|--|---------|---------|
| CSO 010 Throttle Capacity Improvement              | Increase throttle pipe capacity to maximize diversion to South Shore Interconnect Sewer (550 lf of 36" diameter sewer, 775 lf of 27" diameter sewer), Construct new diversion structure at Michigan Street and Bartlett Street     | 05/2036 | 12/2038 |
| CSO 011 Regulator Improvements and Diversion Sewer | CSO 011 regulator modifications, weir adjustments, and 27" diameter relief sewer (2,250 lf) from intra-system diversion structure on 60" trunk sewer upstream of existing CSO 011B location to Michigan Street and Bartlett Street | 05/2036 | 12/2038 |

<sup>1</sup>Each measure shall be designed in accordance with the specifications in this Table-1 and shall also be designed to ensure achievement of the Performance Criteria specified below in footnote 4 to this Table-1 (including designing the equalization basin and RTBs with capacities larger than the minimum specifications, if necessary to achieve the Performance Criteria). Sections XX and XXI of the Consent Decree do not apply with respect to the descriptions and Design Criteria in this Table-1.

<sup>2</sup>See the definition of "Start Date" in Paragraph 8.ddd of the Consent Decree.

<sup>3</sup>See the definition of "End Date" in Paragraph 8.w of the Consent Decree.

<sup>4</sup> There are two types of Performance Criteria for the CSO Control Measures in Table-1. The first, called the "Typical Year Performance Criteria," are that, for the Typical Year (1992) of precipitation as determined utilizing South Bend's Collection System Model in accordance with Section 2 of this LTCP, (1) there shall be no more than 9 CSO Discharges from the Brownfield Park RTB, the Memorial Park RTB, and the Randolph Sampson RTB; and (2) there shall be no more than 3 Overflow Events involving CSO Discharges from any of South Bend's other CSO Outfalls (i.e., all CSO Outfalls other than the RTBs) and no more than a total of 800,000 gallons discharged from those other CSO Outfalls. The second, called the "RTB Treatment Performance Criteria," are that all CSO Discharges from the any of the RTBs during the months that recreational criteria are in effect under Indiana's water quality standards shall meet an *E. Coli* daily maximum effluent limitation of 235 colony forming units per 100 milliliters and shall comply with any residual chlorine effluent limits applicable to such discharges contained in South Bend's NPDES Permits. For *E. Coli*, the "daily maximum" for each discharge point shall be the geometric mean of all *E. Coli* amounts found in all samples collected on any day from the discharge point that a CSO Discharge occurs. In accordance with Section XXII of the Consent Decree, South Bend may seek changes to the Performance Criteria for *E. coli*.

## 1.2 Phase 2 CSO Control Measures: Additional Information

Through the process of review, alternative evaluation, and plan formulation, South Bend has developed a revised program of Phase 2 CSO Control Measures. The Phase 2 CSO Control Measures include new storage facilities, an interbasin relief sewer, new river crossing capacity, and active interceptor controls. These projects directly address overflows that account for most of the total typical year CSO volume in the system. Additional improvements required to reduce discharges from the remaining overflows include localized collection system capacity improvements, targeted green infrastructure improvements, and regulator/throttle modifications.

Storage Facilities (serves CSO Basins 003, 006, 022, 031, 033, 035, 036, 037, 045)

Equalization (EQ) Basins and Retention Treatment Basins (RTB) facilities for wet weather flows that cannot be accommodated by the South Bend wastewater system are a fundamental component of South Bend's Phase 2 CSO Control Measures, especially at locations where CSO volumes are large. The analyses described in the previous section have shown that South Bend can achieve very high levels of wet weather

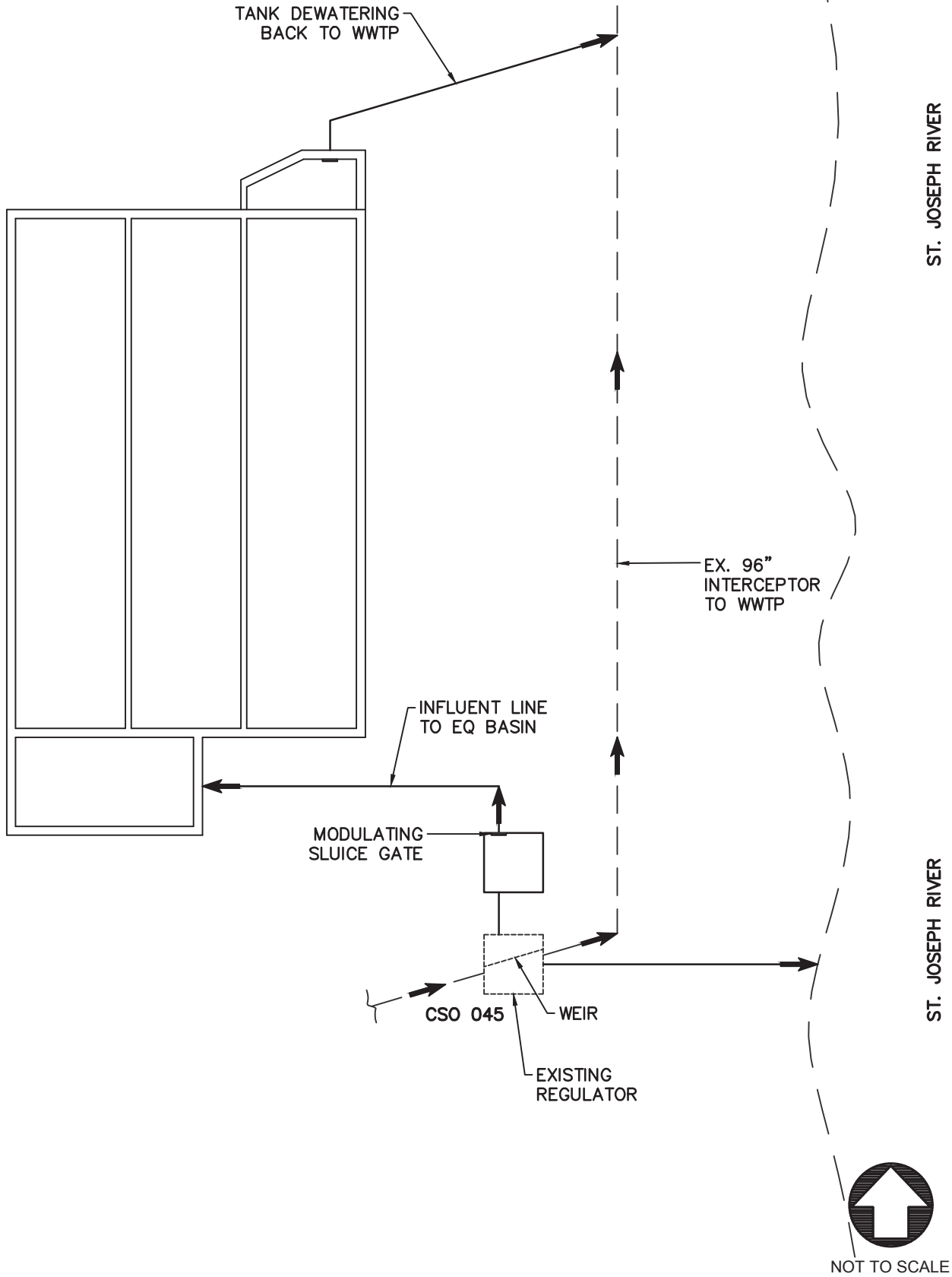
capture and water quality compliance through the implementation of four storage facilities targeted to serve basins that currently produce the largest overflow volumes. These facilities include:

WWTP EQ Basin (CSO 045). CSO 045 immediately upstream of the South Bend WWTP accounts for a significant amount of the system's annual remaining CSO volume. An equalization basin at this location will serve to dramatically reduce this volume and provide operational flexibility for WWTP operators under a wide range of flow conditions. As levels increase in the interceptor just upstream of the plant, South Bend will divert flow across a control weir and gate and into the EQ Basin. During all events in the Typical Year, South Bend will detain the excess flow and then pump the excess flow back to the head of the WWTP for treatment once capacity is available.

Based on analyses completed to date and a WWTP capacity of 100 MGD, South Bend will construct a minimum of 2.0 MG of storage at this location. **Figure 1** provides a schematic layout of the WWTP Storage Tank. Modest re-alignments of existing sewers near the headworks of the WWTP will be required to accommodate the new facility.

Memorial Park RTB (CSOs 031, 033, 035, 036, 037). Overflows from CSOs along the north side of the St. Joseph River between Ironwood Drive and Eddy Street are a large contributor to the CSO volume from the South Bend system, with flows at CSO 37 having the largest impact. South Bend will construct a new wet weather storage facility at the Memorial Park site to detain these excess flows and dramatically reduce CSO discharges to the St. Joseph River upstream of the East Race waterway. A minimum total volume of 3.9 MG of wet weather storage and preliminary treatment capacity will be constructed at the Memorial Park site along with approximately 7,250 feet of new consolidation sewer designed to capture excess flows from CSO Basins 031, 033, 035, 036, 037, and the new River Crossing 2 Barrel and convey them to the RTB. South Bend will design the new consolidation sewers to include diversion structures on the existing overflow sewers serving each of the active CSOs. Normal dry weather flows and wet weather flows that can be conveyed by the existing interceptor sewer will continue to flow through the existing system to South Bend's WWTP and will not drain to the new RTB. When wet weather flows begin to exceed the capacity of the interceptor system, the excess flow will pass to the consolidation sewer network and be directed toward the Memorial Park RTB. South Bend will release flow stored in the RTB back to the interceptor system as capacity allows, maximizing the portion of the total wet weather flow captured and conveyed to the WWTP for full treatment. Should the capacity of the new facility be exceeded, South Bend will treat (settling, skimming and disinfection/dechlorination) overflow from the RTB to reduce water quality impacts on the receiving stream. South Bend will maintain existing CSO outfalls at CSOs 031, 033, 035, 036, and 037 to relieve the combined sewer system during events that exceed the design capacity of the consolidation sewers and RTB.

**Figure 2** provides a schematic overview of the Memorial Park RTB and the associated consolidation sewers.



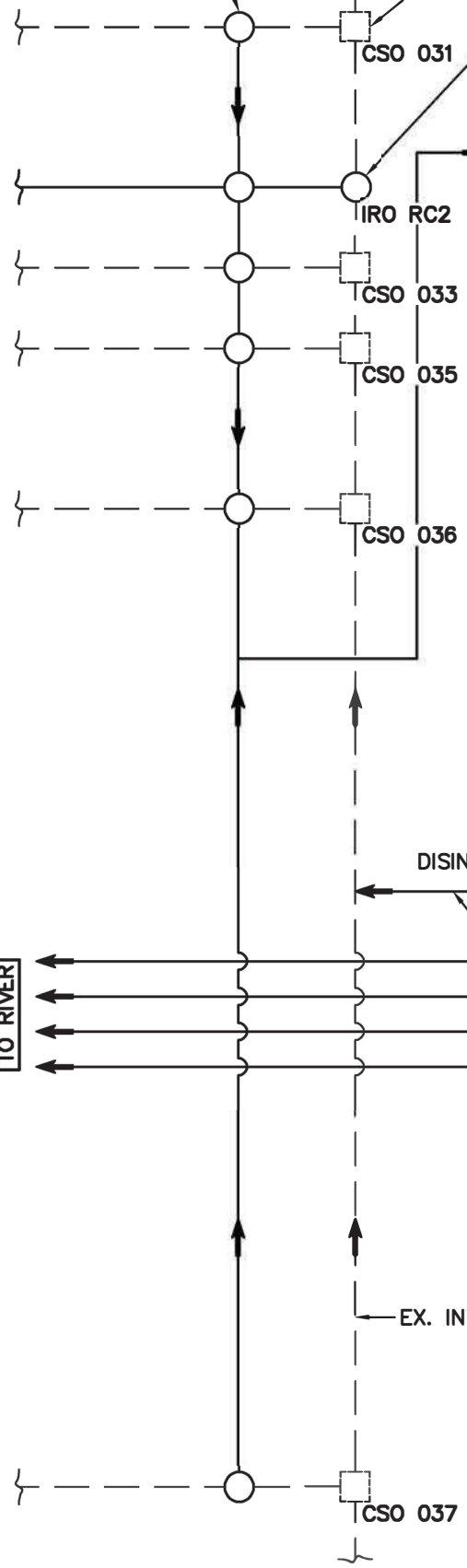

**AMERICAN STRUCTUREPOINT INC.**  
 205 W. JEFFERSON BLVD. SUITE 404  
 SOUTH BEND, INDIANA 46601  
 TEL 574.287.2231  
 www.structurepoint.com

**WASTEWATER TREATMENT PLANT  
 EQ BASIN (2.0 MG) SCHEMATIC**  
**CITY OF SOUTH BEND LTCP**

FIGURE NO.:  
**1**  
 DATE:  
 03/18/2020

PROPOSED DIVERSION  
STRUCTURE (TYP.)

EX. REGULATOR (TYP.)



NOT TO SCALE

### MEMORIAL PARK RTB (3.9 MG) SCHEMATIC

FIGURE NO.:

2

CITY OF SOUTH BEND LTCP

DATE:

03/18/2020



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INC

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SOUTH BEND, INDIANA 46601  
TEL 574.287.2231  
www.structurepoint.com

Randolph-Sampson RTB (CSO 22). South Bend's Phase 2 CSO Control Measures also include CSO storage capacity required at the Randolph-Sampson site. South Bend will construct a new minimum of 4.7 MG storage facility near the intersection of Randolph and Sampson Streets to capture and store these flows, contributing to further reductions in CSOs upstream of the East Race waterway.

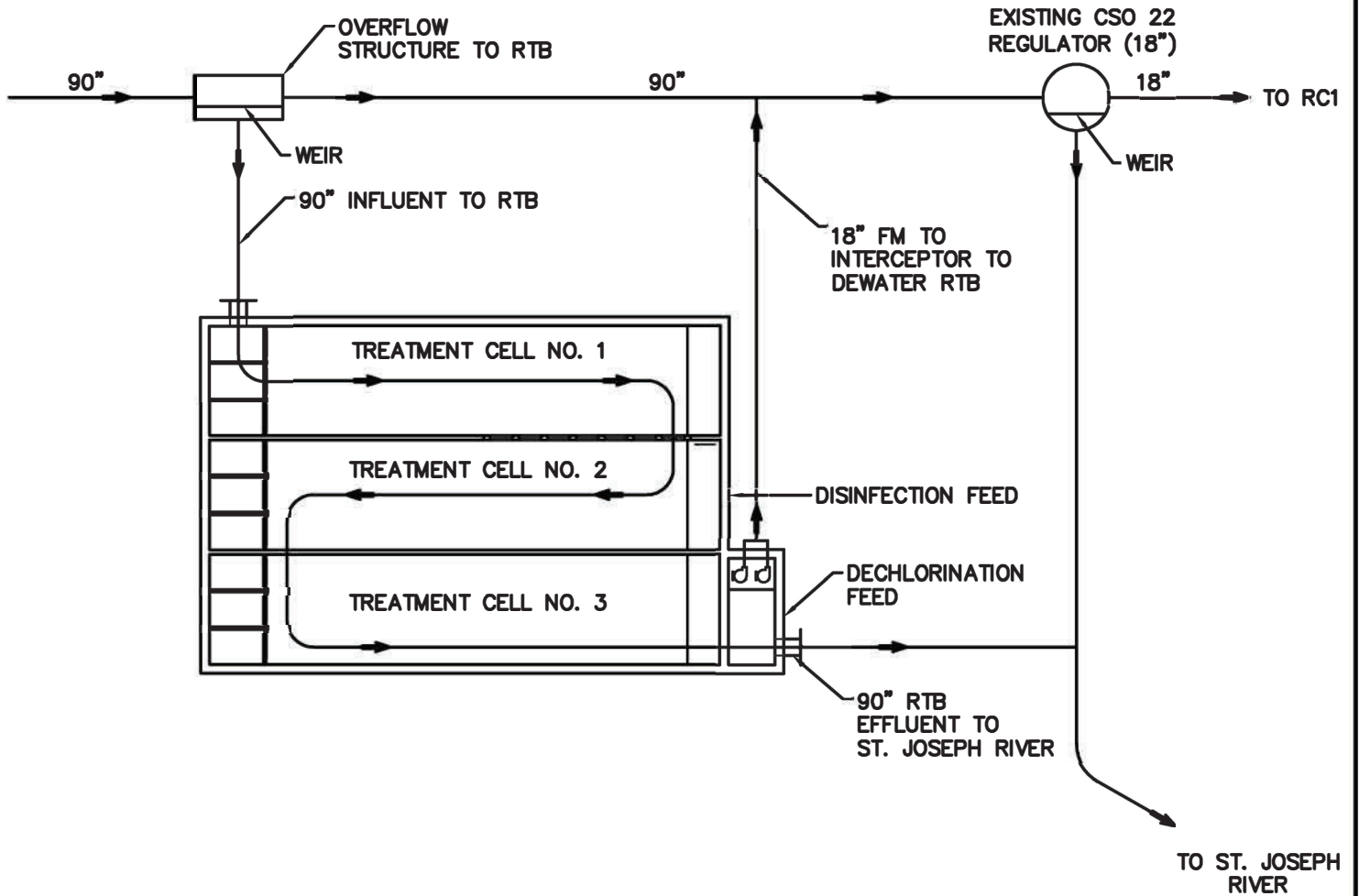
The Randolph-Sampson RTB will operate in a similar fashion as the Memorial Park facility, with normal dry weather and moderate wet weather flows continuing to be directed through the existing interceptor system to the South Bend WWTP. The Randolph-Sampson RTB will activate when the capacity of the interceptor is exceeded to capture excess wet weather flow prior to any discharge to the St. Joseph River. To the extent practical, South Bend will store wet weather flows and then pump them back to the interceptor system for full treatment at the WWTP. Should the capacity of the RTB be exceeded, South Bend will disinfect and dechlorinate any overflow prior to discharge to the St. Joseph River. CSO 022 will remain active as a relief point in the event that the design capacity of the RTB system is exceeded.

**Figure 3** provides a schematic overview of the Randolph-Sampson RTB.

Brownfield Park RTB (CSO 003, 004, 006, 007, 008, 010, 011, 025, 026). South Bend will construct a minimum 2.0 MG storage facility in Brownfield Park and a storage tunnel to address peak flows at CSO 006 and adjacent CSOs upstream and downstream. This facility, in conjunction with the South Shore Interconnect, will capture peak flows from CSO 003, 004, 006, 007, 010, 011, 025, and 026. South Bend will direct normal dry weather and moderate wet weather flows from CSO 006, 007, 010, and 011 to the new South Shore Interconnect (SSI), described in more detail below, and ultimately to the South Bend WWTP, while South Bend directs flow from CSO 003, 004, 025 and 026 to the WWTP via the existing interceptor. The Brownfield RTB will activate when the capacity of the SSI and the existing interceptor is exceeded to capture excess wet weather flow prior to discharge to the St. Joseph River. When possible, South Bend will pump wet weather captured in the facility back to the SSI for full treatment at the WWTP. If the capacity of the facility is exceeded, South Bend will disinfect and dechlorinate wet weather overflows prior to discharge to the St. Joseph River. A new diversion and real time control structure on the SSI will direct wet weather excess flow from CSO 006, 007, 010, and 011 to the tank. When the real time control structure is activated, flows from CSO 003, 004, 025, and 026 will be directed upstream through the existing interceptor to the SSI and into the Brownfield Park RTB. Each of the CSO's served by the SSI and Brownfield Park facility will remain open as a relief point in the event that the design capacity of the RTB system is exceeded.

**Figure 4** provides a schematic overview of the Brownfield Park RTB.

In combination, these four facilities will provide a minimum total of 12.6 MG of storage and treatment capacity for excess wet weather flow from basins in the South Bend wastewater collection system that account for more than 85% of the Typical Year CSOs under current conditions.



NOT TO SCALE



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INC

205 W. JEFFERSON BLVD, SUITE 404  
SOUTH BEND, INDIANA 46601  
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**RANDOLPH-SAMPSON RTB (4.7 MG)  
SCHEMATIC**

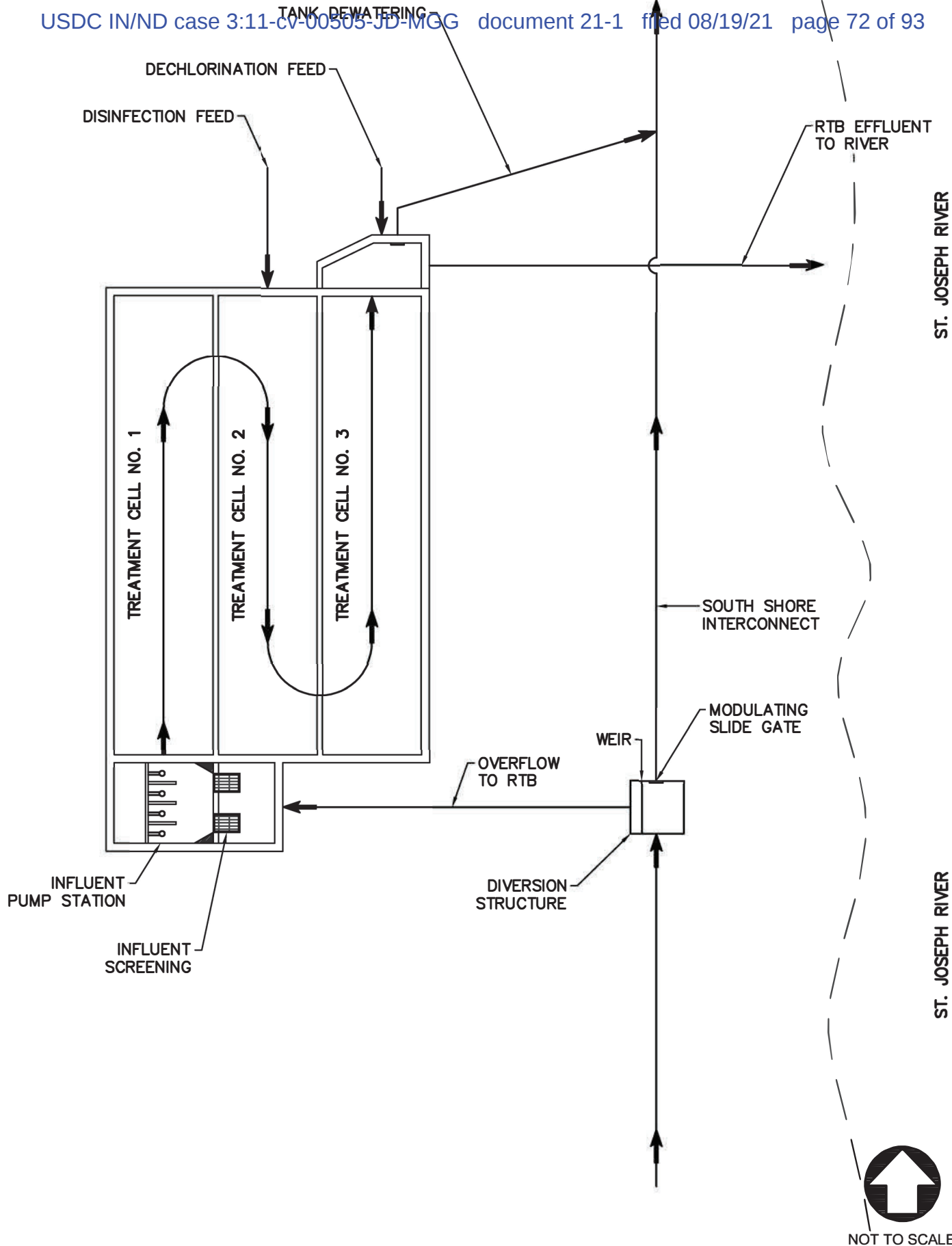
**CITY OF SOUTH BEND LTCP**

FIGURE NO.:

**3**

DATE:

03/18/2020



NOT TO SCALE

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**STRUCTUREPOINT**  
INC

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SOUTH BEND, INDIANA 46601  
TEL 574.287.2231  
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**BROWNFIELD PARK RTB (2.0 MG)  
SCHEMATIC**

CITY OF SOUTH BEND LTCP

FIGURE NO.:  
**4**

DATE:  
03/18/2020

*South Shore Interconnect (serves CSO Basins 006, 007, 008, 010, 011)*

The ability of the existing South Bend wastewater collection system to convey flow from CSO Basins along the south shore of the St. Joseph River downstream of the East Race is constrained by existing river crossing capacities. South Bend will reduce the overflows at these CSOs through the construction of a 7-foot diameter interconnecting relief sewer generally between River Crossing #5 (Angela Bridge) and the Michigan Street Lift Station. Under current conditions, flow from Basin 006 drains southeast along Riverside Drive and converges with flow from Basins 007, 008, 010, 011 to pass through River Crossing #4, flow through the interceptor sewer on the north side of the river along North Shore Drive, and then flow back through River Crossing #5 to reach the intersection of Riverside Drive and Angela Boulevard on the south side of the St. Joseph River. Basins 008 and 010 are further impacted by the limited capacity of the Michigan Street Lift Station. The SSI will capture overflows from Basins 006, 007, 008, 010, and 011, bypass the two river crossings, and reduce flow loadings along the existing interceptor between Michigan Street and Angela Boulevard. As a result of the SSI, South Bend will be able to abandon both the Michigan Street Lift Station and River Crossing #4.

**Figure 5** provides a general illustration of the South Shore Interconnect. Due to the depth at which the sewer will have to be constructed, cost estimates include allowances for microtunneling of the pipe from the Leeper Park area to the downstream end of River Crossing #5.

*River Crossing #2 and River Crossing #3 Interconnect (serves CSO Basins 014 and 018)*

River Crossing #2 and River Crossing #3 located upstream and downstream of the Sample Street bridge over the St. Joseph River create capacity restrictions that result in CSO overflows at CSO 014 and CSO 018 respectively. South Bend will construct a new 36-inch interconnect to direct flow from CSO 014 to CSO 018. From CSO 018, the excess flow will drain across the river toward the new Memorial Park consolidation sewer. The new interconnect will serve as a conveyance and storage system primarily serving CSO 014 but will also provide storage capacity for excess flow from CSO 018.

**Figure 6** provides a general illustration of the River Crossing #2 and River Crossing #3 Interconnect.

*New Interceptor (serves CSO Basins 019 and 020)*

Sewers tributary to CSO 020 (now closed) direct flow towards CSO 021 and River Crossing #1 to the south as well as towards CSO 019 through the existing interceptor. Each of these conveyance systems have capacity concerns and the flow Basin 020 results in overflows at CSO 019 and CSO 021. As described below, a new interceptor designed to pick up flows from CSO 020 and direct flows toward an improved River Crossing #2 will provide relief for CSO 019 and CSO 021 as well as reduce flow through River Crossing#1 and ultimately towards the Randolph-Sampson RTB.

*New Wet Weather River Crossing*

*(River Crossing #2 and River Crossing #3 Interconnect and New Interceptor)*

Each of the new conveyance systems described above will direct flow towards River Crossing #2. Normal dry weather and moderate wet weather flows will be directed to the existing river crossing. In wet weather events during which the capacity of the existing crossing is exceeded, flows will go over a weir at a new diversion structure and drain to a dedicated new wet weather river crossing. The new river crossing will send flow into the Memorial Park consolidation sewer.



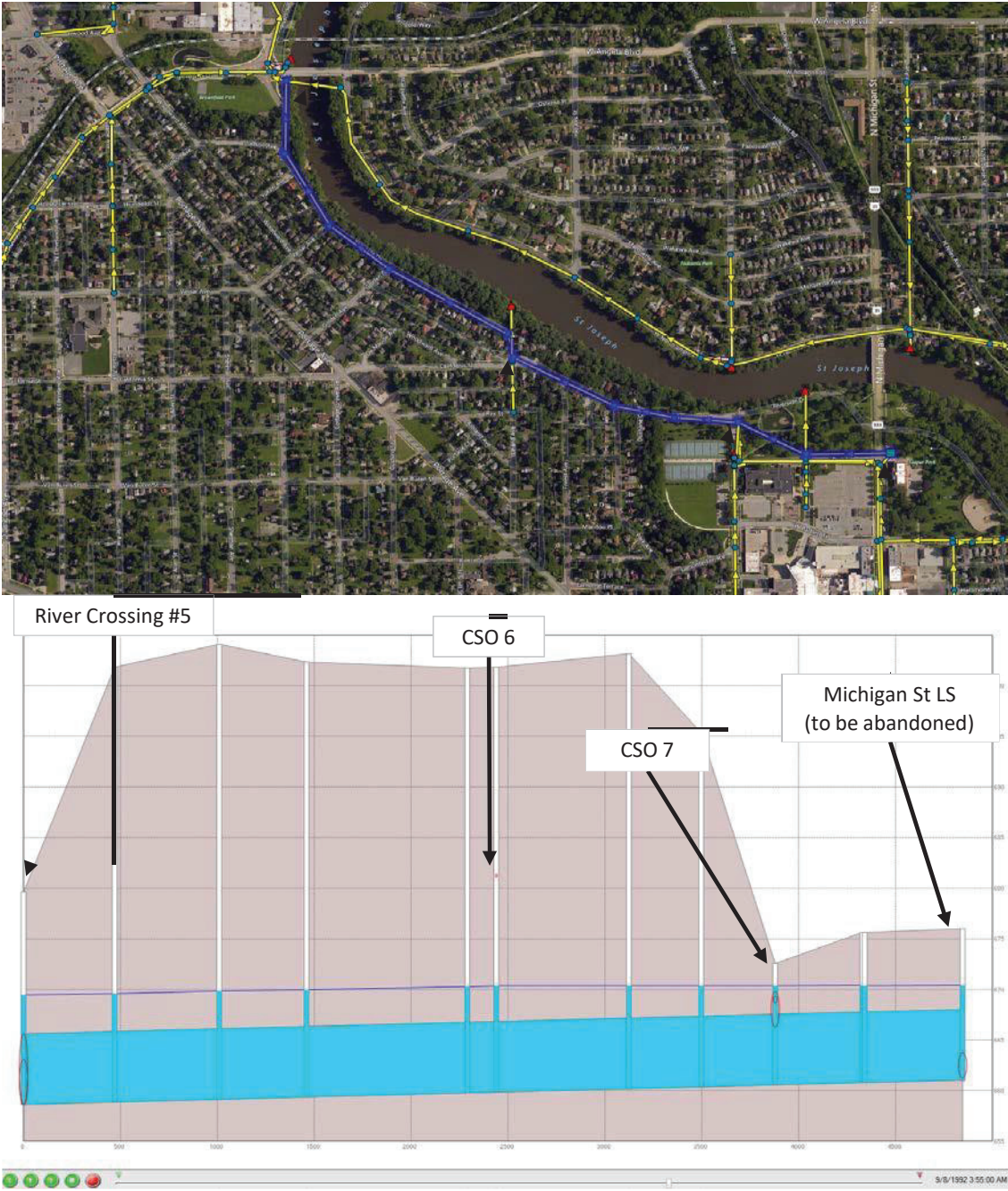


Figure 5 - South Shore Interconnect

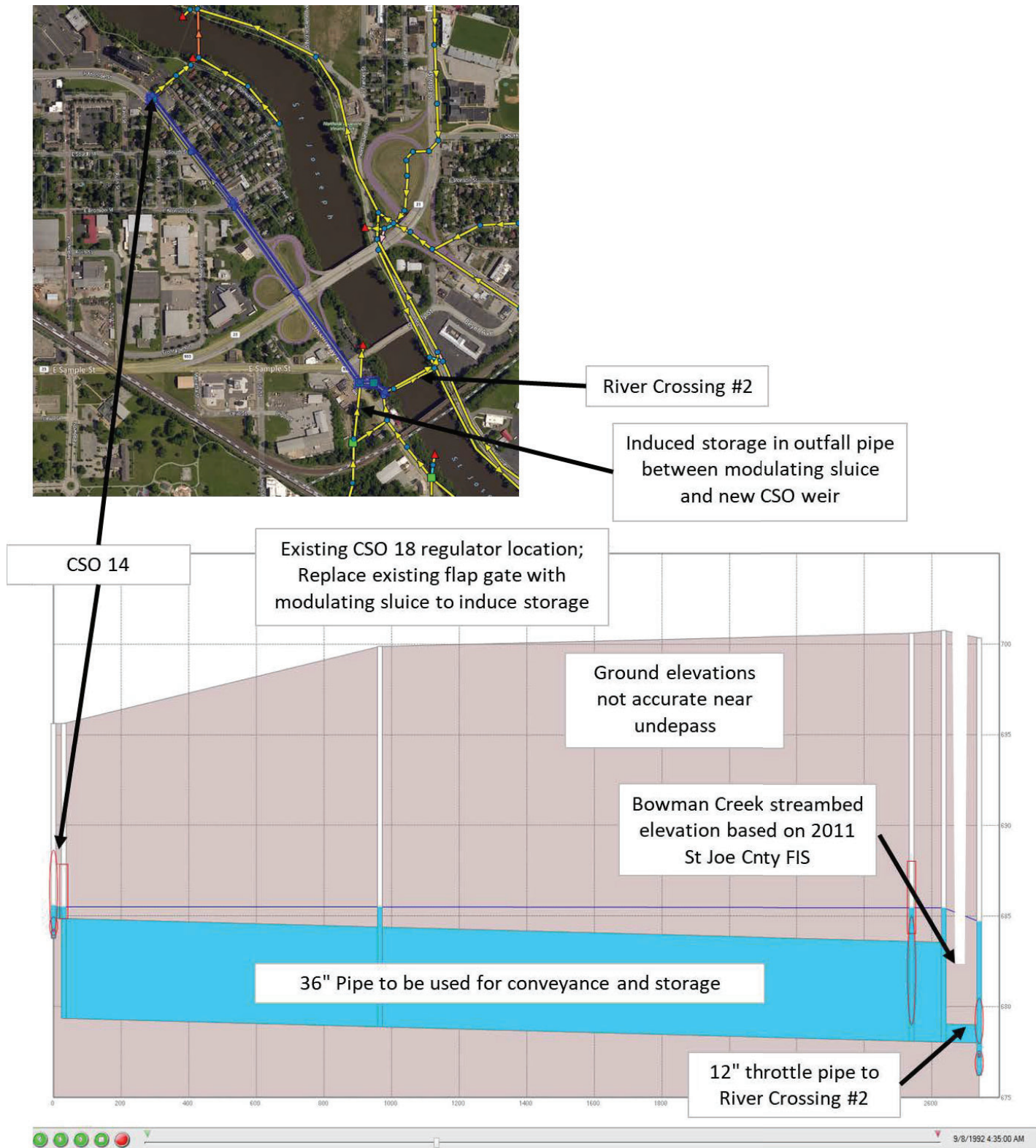


Figure 6 - River Crossing #2 and #3 Interconnect

### *Interceptor Active Controls*

The success of the Smart Sewer System controls implemented within the South Bend system to date demonstrates the value that active control can have in optimizing collection system performance and reducing CSOs. Under the Phase 2 CSO Control Measures, South Bend will implement additional controls along its primary interceptor system at strategic locations.

To optimize the flow to the WWTP, South Bend will install a new influent gate at the WWTP storage facility. During wet weather flow, South Bend will use the gate to prioritize flow to the WWTP, and then to the EQ Basin to maximize the capacity of the interceptor leading to the plant while reducing the potential for overflows at CSO 045.

South Bend will install a new slice gate at the CSO 018 Regulator Structure. During wet weather, this gate will induce storage in the trunk sewer upstream of CSO 018. This induced storage will alleviate some of the wet weather peak flows of CSO 018 from entering the new River Crossing #2 to River Crossing #3 interconnect, the new wet weather River Crossing, and Memorial Park Consolidation sewers. This gate will allow the trunk sewer to share the storage burden placed on Memorial Park from CSO 018.

In addition to the WWTP Storage Facility, South Bend will install a new control gate on the interceptor at the convergence of River Crossing #2 to actively allocate interceptor capacity through the center of South Bend. During wet weather flow events, South Bend will operate the gate to restrict flow into the interceptor from areas on the north side of the river where the Memorial Park storage tank provides temporary capacity, reserving capacity for flow from downstream basins.

South Bend will install a third gate on the capture pipe of CSO 022 which will protect CSO 048 at River Crossing #1. South Bend also will install a new gate for the existing backflow prevention gate at CSO 018 regulator structure to induce storage in the existing upstream large diameter pipe.

### *Green Stormwater Infrastructure and Targeted Sewer Separation Improvements*

GSI improvements that are part of South Bend's Phase 2 CSO Control Measures are limited to specific projects in CSO Basins 010 and 019. In both cases, South Bend has analyzed the specific projects using South Bend's Collection System Model using EPA's templates for low impact design. As South Bend proceeds with design of South Bend's Phase 2 CSO Control Measures, South Bend will evaluate the specific benefits of these GSI measures along with regulator and throttle modifications in these basins to define the preferred combination of GSI and conventional CSO management improvements for the local areas.

In CSO Basin 010, South Bend will work to combine the benefits of targeted sewer separation, a green alley program, and a residential rain barrel program to reduce runoff peaks and volume. South Bend will evaluate these reductions in wet weather flow for their ability to decrease flows to the upstream portion of the South Shore Interconnect sewer.

In CSO Basin 019, South Bend plans to implement a green alley program and install dry wells near the intersection of Miami Road and Donald Street to reduce local wet weather runoff, thereby reducing peak loadings on the existing combined sewer system upstream of River Crossing #2.

Lastly, South Bend's analyses show that construction of approximately 3200 feet of new storm sewer within CSO Basins 040 and 041 coupled with localized Green Stormwater Infrastructure improvements can reduce wet weather peak flows to the upstream end of South Bend's combined sewer interceptor



and achieve a corresponding reduction in typical year overflows to the St. Joseph River. This small separation project is identified as a specific element of South Bend's Phase 2 CSO Control Measures.

#### Regulator/Throttle Modifications

The final component of South Bend's Phase 2 CSO Control Measures includes a program of regulator and throttle modifications throughout South Bend's wastewater collection system. Most of the existing regulators within the South Bend system were designed and installed to manage flows to the interceptorsystem, not to maximize wet weather capture within the system. Simulations for South Bend's Phase 2 CSO Control Measures suggest that South Bend can achieve significant reductions in CSO volume leading to increased wet weather capture and water quality improvement through modifications to several throttle pipes and regulator structures that control flow into the interceptor. South Bend's preliminary analyses suggest that effective modifications could include:

- Throttle pipe modifications to increase the system's ability to move flows from regulator structures into the interceptor system when capacity is available (CSOs 001, 010, 011, 019).
- Adjustment of CSO weir structures to increase flow to the interceptor system prior to overflow to the river (CSOs 004, 021, 025, 026, 027, 028, 040).
- General regulator modification required to accommodate proposed RTB facilities and new interconnect connections (CSOs 006, 007, 014, 018, 022, 031, 033, 035, 036, 037, CSO 060)
- Conversion to Interceptor Relief Overflow (CSO 003)

South Bend will refine the final details of the regulator and throttle modifications as the plan is implemented. South Bend will perform subsequent analyses to consider the impact of river stage elevations at each location and confirm that the proposed changes will not increase the risk of basement flooding or other system impacts in upstream areas tributary to South Bend's combined sewer system.

### 1.3 Expected Performance of Phase 2 CSO Control Measures

After completing the Phase 2 CSO Control Measures, South Bend will reduce total Typical Year untreated CSO discharges from pre-LTCP levels of more than 2 billion gallons per year to less than 800,000 gallons per year, with only about 500,000 gallons of untreated discharges occurring above the East Race. The total number of untreated CSO events projected to occur in the typical year will be 3 or less.

Untreated CSO events which deliver the 800,000 gallons noted above will occur on three or fewer days in the typical year as shown in **Table-2**.

**TABLE 2**  
**ESTIMATED TYPICAL YEAR CSO DISCHARGES**  
**SOUTH BEND 2020 SAGE PLAN**

| Discharge Location  | Location Relative to East Race | No. of Discharge Locations | Predicted Typical Year RTB CSO Discharges | Predicted Typical Year Overflow Events <sup>1</sup> |
|---|--------------------------------|----------------------------|---|---|
| <b>Downstream of the East Race</b>  |                                |                            |   |   |
| <b>Brownfield Park (Disinfected)</b>  | Downstream                     | 1                          | ≤ 9                                       | N/A   |
| <b>Other CSO Discharge Locations</b>  | Downstream                     | 17                         | N/A                                       | ≤ 3   |
| CSO045  | Downstream                     |                            |   |   |
| CSO044  | Downstream                     |                            |   |   |
| CSO001  | Downstream                     |                            |   |   |
| CSO002  | Downstream                     |                            |   |   |
| CSO003  | Downstream                     |                            |   |   |
| CSO004  | Downstream                     |                            |   |   |
| CSO006  | Downstream                     |                            |   |   |
| CSO007  | Downstream                     |                            |   |   |
| CSO008  | Downstream                     |                            |   |   |
| CSO010  | Downstream                     |                            |   |   |
| CSO11A  | Downstream                     |                            |   |   |
| CSO11B  | Downstream                     |                            |   |   |
| CSO025  | Downstream                     |                            |   |   |
| CSO026  | Downstream                     |                            |   |   |
| CSO027  | Downstream                     |                            |   |   |
| CSO028  | Downstream                     |                            |   |   |
| CSO029  | Downstream                     |                            |   |   |
| <b>Upstream of the East Race</b>  |                                |                            |   |   |
| <b>Memorial Park RTB (Disinfected)</b>  | Upstream                       | 1                          | ≤ 9                                       | N/A   |
| <b>Randolph Sampson RTB (Disinfected)</b>   | Upstream                       | 1                          | ≤ 9                                       | N/A   |
| <b>Other CSO Discharge Locations</b>  | Upstream                       | 18                         | N/A                                       | ≤ 3   |
| CSO060  | Upstream                       |                            |   |   |
| CSO030 (Closed)   | Upstream                       |                            |   |   |
| CSO014  | Upstream                       |                            |   |   |
| CSO018  | Upstream                       |                            |   |   |
| CSO031  | Upstream                       |                            |   |   |
| CSO033  | Upstream                       |                            |   |   |
| CSO035  | Upstream                       |                            |   |   |
| CSO036  | Upstream                       |                            |   |   |
| CSO037  | Upstream                       |                            |   |   |
| CSO038  | Upstream                       |                            |   |   |
| CSO039  | Upstream                       |                            |   |   |
| CSO040  | Upstream                       |                            |   |   |
| CSO041  | Upstream                       |                            |   |   |
| CSO042  | Upstream                       |                            |   |   |
| CSO019  | Upstream                       |                            |   |   |
| CSO021  | Upstream                       |                            |   |   |
| CSO048  | Upstream                       |                            |   |   |
| CSO022  | Upstream                       |                            |   |   |
| <b>Total South Bend System</b>  |                                |                            |   |   |
| <sup>1</sup> No more than a total of 800,000 gallons will be discharged from CSO Outfalls other than those at the RTBs during a typical year. |                                |                            |   |   |

The locations of the projects and activities which comprise South Bend's Phase 2 CSO Control Measures are shown in **Figure 7**. South Bend's Phase 2 CSO Control Measures include the building of four CSO Storage Tanks. South Bend will design each of the four CSO Storage Tanks to target a daily maximum discharge level of 235 cfu/100ml E. Coli for typical year precipitation events.

Following the in-service date of each tank, South Bend will optimize the disinfection system and include results of tank disinfection performance with each monthly discharge monitoring report that South Bend submits to IDEM. The optimization period will run through South Bend's submittal of its Final Post-Construction Monitoring Report (PCM Report) described in Section 2 of this LTCP.

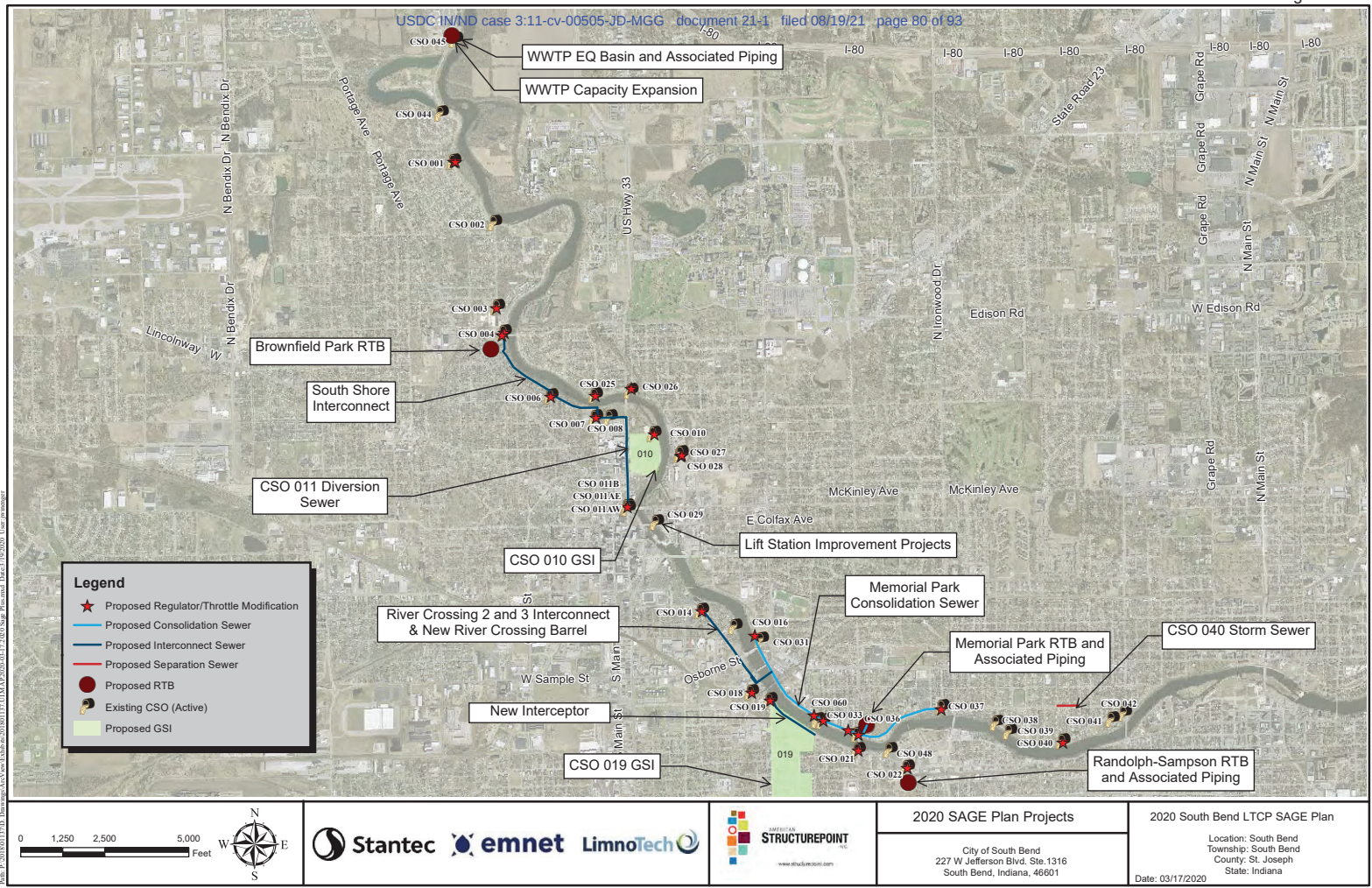
In the PCM Report, South Bend will address whether or not the tanks are achieving the daily maximum of no more than 235 cfu/100ml. In the event that South Bend concludes that it cannot achieve a daily maximum of 235 cfu/100ml, South Bend anticipates that it will submit a use attainability analysis ("UAA") to IDEM. South Bend recognizes that it likely will submit a UAA to IDEM in any event for the non-tank CSO outfalls, however South Bend plans to amend the UAA to include the discharges from the tanks if applicable, based on post construction monitoring results.

#### 1.4 Estimated 2020 SAGE Plan Implementation Costs

South Bend estimates that the total capital costs for implementing South Bend's Phase 2 CSO Control Measures will be \$276 million in 2019 dollars. **Table-3** presents a breakdown of the total program costs by individual element. Costs for the construction of the four new CSO storage facilities and associated conveyance improvements for about 68% of the total cost. Costs associated with the expansion of the existing WWTP to achieve a reliable wet weather capacity of 100 mgd account for another 11% of the total cost.

It is important to recognize that the costs shown in Table 3 are conceptual costs based on conceptual design analyses and contingencies included to account for uncertainty. The costs presented are also in constant 2019 dollars.

Figure 7





**TABLE 3  
OPINION OF PROBABLE PROJECT COSTS  
SOUTH BEND 2020 SAGE PLAN (April 2020)**

All costs presented are constant 2019 dollars

| Improvement   | 2020 SAGE Plan  | Base Construction (\$ millions) | With Construction Contingency (\$ millions) | With Contingency and Engineering (\$ millions) |
|---|---|---------------------------------|---|--|
| <b>WWTP Improvements</b>                                      |   |                                 |   |  |
| WWTP Improvements   | Expansion of the South Bend WWTP to provide peak wet weather capacity of 100 mgd. Cost based on ARCADIS estimates.  | \$ 18.94                        | \$ 24.62                                    | \$ 29.55                                       |
| <b>Storage Facilities</b>                                     |   |                                 |   |  |
| WWTP Storage, Site Piping and Controls                        | Equalization basin and dewatering pumping station. Construction Contingency = 20% based on expanded conceptual design.  | \$ 19.32                        | \$ 23.18                                    | \$ 27.82                                       |
|   | Re-routing of existing sewers to accommodate proposed equalization basin.   | \$ 0.66                         | \$ 0.86                                     | \$ 1.03  |
| Brownfield Storage Tank                                       | Below grade retention treatment basin and pumping station with RTC gate and provisions for screening, disinfection/dechlorination of overflow. Cost based on storage cost curve. 30% construction contingency applied given lack of conceptual design details | \$ 19.32                        | \$ 25.11                                    | \$ 30.13                                       |
| Memorial Park RTB   | Below grade retention treatment basin and pumping station with provisions for screening, disinfection/dechlorination of overflow. Cost based on storage cost curve plus allowance for effluent pump station.  | \$ 37.72                        | \$ 45.26                                    | \$ 54.32                                       |
| Memorial Park Consolidation Sewers and Controls               | Large diameter sewers to collect and convey overflow from CSO Basins 031, 033, 035, 036, 037 to Memorial Park RTB; Segment from CSO 037 to tank increased to 78" diameter (2625 lf).  | \$ 16.24                        | \$ 21.11                                    | \$ 25.33                                       |
| Randolph-Sampson RTB and Site Piping                          | Below grade retention treatment basin and pumping station with provisions for screening, disinfection/dechlorination of overflow. Construction Contingency = 20% based on expanded conceptual design  | \$ 33.76                        | \$ 40.51                                    | \$ 48.62                                       |
|   | 90" diameter inlet and outlet sewers for Randolph-Sampson RTB   | \$ 0.53                         | \$ 0.69                                     | \$ 0.82  |
| <b>Conveyance Facilities</b>                                  |   |                                 |   |  |
| South Shore Interconnect Sewer                                | 84" diameter interconnecting sewer from Michigan St LS to downstream end of River Crossing #5. Collects overflow from CSO Basins 006, 007, 008, 010, 011 and allows River Crossing #4 and the Michigan Street LS to be abandoned.                             | \$ 18.80                        | \$ 24.44                                    | \$ 29.33                                       |
| River Crossing 2-3 Interconnect Sewer                         | 36" diameter interconnecting sewer (reduced from 66") between CSO 14 and River Crossing #2 serving as both conveyance and storage   | \$ 3.20                         | \$ 4.16                                     | \$ 5.00  |
| Interceptor Replacement                                       | 24" diameter replacement for existing interceptor from CSO 020 to CSO 019 (1,800 lf)  | \$ 1.22                         | \$ 1.59                                     | \$ 1.90  |
| New River Crossing  | 48" diameter wet weather river crossing (500 lf) to direct excess flow from south side of river to Memorial Park RTB; Use cost curve.   | \$ 5.50                         | \$ 7.15                                     | \$ 8.58  |
| <b>Interceptor Active Controls</b>                            |   |                                 |   |  |
| Interceptor Control Upstream of River Crossing #2             | Actively controlled interceptor isolation gate to regulate flow downstream and detain excess in Memorial Park RTB   | \$ 0.16                         | \$ 0.21                                     | \$ 0.25  |
| Sluice Gate at CSO 18 Regulator Structure                     | Actively controlled modulating sluice gate operated to make effective use of storage in Basin 018 trunk sewer   | \$ 0.16                         | \$ 0.21                                     | \$ 0.25  |
| Throttle Control at CSO 022                                   | Actively controlled sluice gate on capture throttle to prevent overflows at CSO 48 near River Crossing #1   | \$ 0.16                         | \$ 0.21                                     | \$ 0.25  |
| <b>Local Collection System Capacity</b>                       |   |                                 |   |  |
| Basin CSO 040, 041 Separation Sewer                           | 15" new storm sewer (975 lf), 18" new storm sewer (650 lf), 24" new storm sewer (650 lf) on Pleasant Avenue; 24" new storm sewer (700 lf) on Northside Blvd.  | \$ 1.80                         | \$ 2.34                                     | \$ 2.81  |
| <b>Regulator and Throttle Modifications</b>                   |   |                                 |   |  |
| CSO 001 Throttle Capacity Improvement                         | Increase dry weather throttle pipe capacity   | \$ 0.04                         | \$ 0.05                                     | \$ 0.06  |
| CSO 010 Throttle Capacity Improvement                         | Increase throttle pipe capacity to maximize diversion to South Shore Interconnect Sewer (550 lf of 36" diameter sewer, 775 lf of 27" diameter sewer), Construct new diversion structure at Michigan St and Bartlett St  | \$ 1.07                         | \$ 1.39                                     | \$ 1.67  |
| CSO 011 Regulator Improvements and Diversion Sewer            | CSO 011 regulator modifications, weir adjustments, and 27" diameter relief sewer (2,250 lf) from intra-system diversion structure on 60" trunk sewer upstream of existing CSO 011B location to Michigan St and Bartlett St                                    | \$ 1.90                         | \$ 2.47                                     | \$ 3.21  |
| CSO 019 Throttle Capacity Improvement                         | Increase throttle pipe capacity to maximize diversion to South Shore Interconnect Sewer (650 lf of 24" diameter sewer)  | \$ 0.44                         | \$ 0.57                                     | \$ 0.69  |
| Regulator Modifications for Memorial Park Consolidation Sewer | Modifications to regulators for CSO 031, 033, 035, 036, 037, 060  | \$ 0.10                         | \$ 0.12                                     | \$ 0.15  |
| Regulator Modifications for Randolph-Sampson RTB              | Modification to regulator at CSO 022  | \$ 0.06                         | \$ 0.08                                     | \$ 0.10  |
| Regulator/Throttle Improvements Downstream of East Race       | Modifications to regulators/throttles at CSOs 003, 004, 006, 007, 025, 026, 027, 028  | \$ 0.13                         | \$ 0.17                                     | \$ 0.20  |
| CSO 029 Lift Station Modification                             | Increase lift station capacity to 250 gpm (0.55 mgd)  | \$ 0.50                         | \$ 0.65                                     | \$ 0.83  |
| Regulator/Throttle Improvements Upstream of East Race         | Modifications to regulators/throttles at CSOs 014, 018, 021, 040  | \$ 0.06                         | \$ 0.08                                     | \$ 0.10  |
| <b>Green Stormwater Infrastructure</b>                        |   |                                 |   |  |
| CSO Basin 010 GSI Improvements                                | Sewer Separation, Green Alley Improvements, Rain Barrel Program   | \$ 0.65                         | \$ 0.84                                     | \$ 1.01  |
| CSO Basin 019 GSI Improvements                                | Green Alley Improvements, Intersection Dry Wells  | \$ 0.67                         | \$ 0.88                                     | \$ 1.05  |
| CSO Basin 039, 040 GSI Improvements                           | GSI unit drain improvements along Pleasant Avenue   | \$ 0.50                         | \$ 0.65                                     | \$ 0.83  |
| <b>2020 SAGE Plan</b>   |   |                                 |   | <b>\$ 275.91</b>                               |



## Appendix A: Section 2 Post-Construction Monitoring Program

### 2.1 Purpose of Post-Construction Monitoring Program and Deadline for Completion

The purpose of South Bend's Post-Construction Monitoring Program is to determine (a) whether the CSO Control Measures implemented pursuant to section 1 of this Appendix have achieved the Design Criteria and Performance Criteria specified in Table 1 of this Appendix; (b) whether South Bend is complying with the Water Quality Based Requirements in South Bend's NPDES Permit; and (c) whether South Bend's CSOs cause or contribute to causing exceedances of water quality standards (WQS). South Bend shall complete all requirements of section 2 of this Appendix A, including the requirement in section 2.5 of this Appendix A to Submit to the United States and Indiana a Final Post-Construction Monitoring Report, on or before December 31, 2040.

### 2.2 Data Collection

After fully constructing and implementing the CSO Control Measures described in Table 1 of this Appendix, South Bend shall continue to monitor rainfall volume and intensity for a 12-month post-construction monitoring period as a component of South Bend's Post-Construction Monitoring Program.

After South Bend constructs and fully implements all CSO Control Measures as per Table 1, South Bend shall collect sewer response data for each constructed CSO Control Measure location, and use such data to properly calibrate the Collection System Model. During each precipitation event that occurs during the 12-month post-construction monitoring periods, at a minimum, South Bend shall collect the following data: (1) 15-minute rainfall data for each event; (2) CSO Discharge volumes and frequency and duration at each CSO Outfall; and (3) water quality samples from the St. Joseph River for predefined parameters and at predefined frequencies and locations.

South Bend also shall monitor the *E. Coli* (and if chlorination is used for disinfection, the residual chlorine) concentrations in all CSO Discharges that occur during the 12-month post-construction monitoring period after South Bend completes construction and implementation of all of the CSO Control Measures described in Table 1 of this Appendix, when weather and safety conditions are sufficient to allow such sampling.

During the 12-month post-construction monitoring period after all CSO Control Measures are implemented, South Bend shall collect weekly samples of the St. Joseph River upstream of all of South Bend's CSO Outfalls and downstream of all of South Bend's CSO Outfalls, when weather and safety conditions are sufficient to allow such sampling. South Bend shall analyze these weekly samples for *E. coli* to document the upstream and background *E. coli* concentration in the St. Joseph River before the impact of discharges from South Bend's CSO Outfalls and the St. Joseph River's bacterial water quality downstream of South Bend's CSO Outfalls.

After constructing and fully implementing all CSO Control Measures in Table 1 of this Appendix, during the 12-month post-construction monitoring period South Bend shall monitor any remaining CSO Discharges from any remaining CSO Outfalls for flow volume and duration to assist in assessing system performance. As part of this Post-Construction Monitoring Plan, South Bend shall compare the Collection System Model output to the actual observed sewer system response to determine whether model recalibration is necessary. South Bend shall modify the Collection System Model as necessary until the Collection System Model is calibrated and validated to have a high degree of agreement with sewer system response as observed in the monitoring results.

After South Bend verifies that the Collection System Model incorporating all CSO Control Measures has been accurately calibrated and validated, writes all reports required by section 2.3.1 of this Appendix, and receives written approval to proceed from EPA and IDEM as described in section 2.3.1 of this Appendix, South Bend shall use the calibrated and validated Collection System Model to conduct a simulation based on the Typical Year to determine how many CSO Discharges are predicted to occur from each Discharge Location set forth in Table-2 of this Appendix and the volumes of discharges that are predicted to occur from each Discharge Location. If the properly calibrated and validated model simulation predicts (a) the same or fewer CSO Discharges during the Typical Year for each specified RTB Discharge Location, (b) there are no more than 3 Discharge Events involving discharges from any Discharge Locations other than the RTBs and (c) the total volume discharged from all of South Bend's Discharge Locations other than the RTBs is 800,000 gallons or less, then South Bend will be deemed to have met the CSO Typical Year Performance Criteria.

## **2.3 Collection System Data Analysis**

### **2.3.1 Collection System Model Calibration and Validation**

South Bend shall update, calibrate, and validate the Collection System Model by performing the following steps:

1. Collect flow monitoring, rainfall, and CSO activation data, as described in greater detail in section 2.2 Data Collection of this Appendix, sufficient to re-calibrate the Collection System Model during the 12-month post-construction monitoring period that commences after South Bend finishes constructing and implementing all of the CSO Control Measures described in Table 1 of this Appendix.
2. Perform quality assurance and quality control of the data collected in Step 1, as described in South Bend's Report on Quality Assurance/Quality Control and Data Management dated September 30, 2005, or any subsequent version approved by EPA.
3. Update the Collection System Model to incorporate all completed CSO Control Measures and any other system improvements completed since the latest previous Collection System Model calibration or validation effort. South Bend then shall use the updated Collection System Model

and the rainfall data collected during the post-construction monitoring period to run a continuous simulation of CSO Discharges for the 12-month post-construction monitoring period.

4. Compare CSO Discharge frequency in the continuous simulation outputs to the CSO monitoring data for the 12-month post-construction monitoring period to determine whether re-calibration of the Collection System Model is needed. For each CSO Outfall, the model-predicted activations shall be no more than one activation less than monitored activations. For example, to be properly calibrated, for a CSO Outfall that is predicted to have three CSO Discharges during the Typical Year and which experienced six CSO Discharges during post-construction monitoring, the Collection System Model must predict five or more CSO Discharges for that CSO Outfall for that same post-construction monitoring period. If these criteria are not met, South Bend shall recalibrate the Collection System Model in accordance with Steps 5-6 below. At the conclusion of Step 4, South Bend shall Submit an Initial Collection System Model Validation Report to EPA and Indiana for written authorization to proceed to the next step.

5. If re-calibration is needed, South Bend shall select two or more appropriate rainfall events from the 12-month post-construction monitoring period for Collection System Model recalibration.

6. After South Bend re-calibrates the Collection System Model using sound engineering judgment in accordance with standard industry practices, South Bend shall run another continuous simulation for the entire monitoring period to verify that the re-calibrated Collection System Model has achieved the criteria described in Step 4, above. Thereafter, South Bend shall compare the continuous simulation outputs to the CSO monitoring data, as described in Step 4, to determine whether additional re-calibration is needed. If additional re-calibration is needed, South Bend shall re-calibrate in accordance with Steps 5-6 until the Collection System Model has achieved the criteria described in Step 4, above.

If EPA and IDEM agree that South Bend has adequately re-calibrated and validated the Collection System Model, South Bend shall prepare a Collection System Model Re-calibration Report documenting the re-calibration and validation efforts. After receiving written authorization to proceed from EPA and IDEM, South Bend shall conduct the Performance Criteria analysis described in section 2.3.2 of this Appendix A.

### **2.3.2 Collection System Performance Criteria Analysis**

South Bend expects that South Bend's CSO Control Measures, when fully constructed and implemented, will result in reducing (a) CSO Discharges from the RTBs down to the CSO Discharges Per Typical Year number for each RTB Discharge Location specified in Table-2 of this Appendix during the Typical Year and (b) discharges from other Discharge Locations to no more than 3 Overflow Events during the Typical Year. More frequent CSO Discharges may occur, however, if the volume and intensity of rainfall during any particular year exceeds the volume and intensity of rainfall during the Typical Year. Nevertheless, the CSO Control Measures will capture for treatment the first part of each storm, known as the first flush.

After Submitting to EPA and Indiana any report required by section 2.3.1 of this Appendix, and receiving written authorization to proceed from EPA and IDEM, South Bend shall use the validated Collection System Model to run a continuous simulation for the Typical Year to determine whether South Bend has achieved the Typical Year Performance Criteria in Table 2 of this Appendix during the Typical Year. Thereafter, South Bend shall include in the Final Post-Construction Monitoring Report required by section 2.5 of this Appendix any discussions, descriptions, and analyses required by section 2.5(h) of this Appendix. If necessary, South Bend shall Submit to EPA and Indiana for review and approval a plan and schedule for the implementation of additional CSO controls necessary to allow South Bend's Facility to meet the Typical Year Performance Criteria in Table 2 of this Appendix.

South Bend also shall analyze all *E. Coli* and residual chlorine monitoring information for all CSO Discharges from the RTBs that occurred during the 12-month post-construction monitoring period to determine whether South Bend is achieving the RTB Treatment Performance Criteria for *E. Coli* and residual chlorine in Table 1 of this Appendix.

## **2.4 Receiving Water Data Analysis**

### **2.4.1 St. Joseph River Model Calibration and Validation**

South Bend shall perform the following steps to update, calibrate, and validate the St. Joseph River Model:

1. Collect flow monitoring, rainfall, in-stream and CSO water quality, and CSO activation data, as described in greater detail in section 2.2 of this Appendix, during a 12-month post-construction monitoring period that commences after South Bend finishes constructing and implementing all of the CSO Control Measures described in Section 1 of this Appendix.
2. Perform quality assurance and quality control of the data collected in Step 1, as described in South Bend's Report on Quality Assurance/Quality Control and Data Management dated September 30, 2005, or any subsequent version approved by EPA.
3. After Submitting to EPA and Indiana any report required by section 2.3.1 of this Appendix, and receiving written authorization to proceed from EPA and IDEM as required by section 2.3.1 of this Appendix, South Bend shall use the St. Joseph River Model in its previously-calibrated state with the validated Collection System Model results, and the rainfall data collected during the 12-month post-construction monitoring period, to run a continuous simulation of the St. Joseph River for the 12-month post-construction monitoring period.
4. Compare the continuous simulation St. Joseph River Model outputs to the in-stream *E. coli* monitoring data for the 12-month post-construction monitoring period to determine whether re-calibration is needed. Re-calibration will not be needed if there is a high degree of agreement between the range of concentrations in the model output and monitoring data. Otherwise, model re-calibration will be needed in accordance with Steps 5-6.
5. If re-calibration is needed, South Bend shall use one rainfall event from the 12-month

post-construction monitoring period for the St. Joseph River Model recalibration.

6. After South Bend has recalibrated the St. Joseph River Model using sound engineering judgment in accordance with standard industry practices, South Bend shall verify the re-calibrated model by running at least two additional wet weather events from the 12-month post-construction monitoring period. Thereafter, South Bend shall again compare the continuous simulation outputs to the instream monitoring data, as described in Step 4 above, to determine whether additional re-calibration is needed. South Bend shall re-calibrate in accordance with Steps 5-6 until there is a high degree of agreement between the range of concentrations in the St. Joseph River Model output and the monitoring data for the monitoring period.

This re-calibration will result in model-data comparisons for at least three rainfall events. Standard modeling practice (Chapra, 1997) is to calibrate the model to a single dataset and then to confirm or validate the model's calibration by simulating at least one different dataset and comparing model predictions to monitoring data. In South Bend's re-calibration approach, a single rainfall event will serve as the calibration dataset (Step 5). South Bend then shall validate the St. Joseph River Model by running it for two additional rainfall events (Step 6).

After South Bend has adequately calibrated and validated the St. Joseph River Model, based on re-calibration efforts, South Bend shall Submit to EPA and Indiana a Model Re-calibration Report documenting the re-calibration and validation. After receiving written authorization to proceed from EPA and IDEM, South Bend shall conduct the Water Quality Standards Assessment described in section 2.4.2 of this Appendix A.

#### **2.4.2 Water Quality Standards Assessment**

After updating, calibrating, and validating the St. Joseph River Model, and receiving written authorization to proceed from EPA and IDEM, South Bend shall use the validated St. Joseph River Model and validated Collection System Model to evaluate in-stream water quality with appropriate analyses. These analyses shall include consideration of compliance with current water quality standards at key locations (including the State line) for the following scenarios: (i) existing upstream/background pollutant concentrations based on samples taken under section 2.2 of this Appendix during the 12-month post-construction monitoring period after all CSO Control Measures are implemented; and (ii) upstream/background pollutant concentrations that are compliant with WQS. South Bend also shall use the St. Joseph River Model to evaluate whether, and how often residual CSO Discharges cause or contribute to exceedances of WQS in Indiana and, at the State line, with Michigan's water quality standards. South Bend then shall Submit to the United States and Indiana a Post-Construction Water Quality Assessment Report documenting South Bend's analysis based on Typical Year performance.

#### **2.5 Final Post Construction Monitoring Report**

On or before December 31, 2041 South Bend shall Submit to the United States and Indiana a final Post-Construction Monitoring Report. In the Final Post-Construction Monitoring Report, South Bend shall:

- (a) demonstrate that South Bend completed all of the requirements of the Post-Construction Monitoring Plan in section 2 of this Appendix A;
- (b) evaluate whether each CSO Control Measure implemented pursuant to section 1 of this Appendix was constructed as designed and in compliance with the Design Criteria described in, and required by, Table 1 of this Appendix, and is performing as designed and expected;
- (c) evaluate how well South Bend's entire Facility is performing as a whole, following completion of all CSO Control Measures, and shall include without limitation an assessment of whether the CSO Control Measures implemented pursuant to section 1 of this Appendix, as constructed, operated, or otherwise implemented, have achieved the Performance Criteria in Table 2;
- (d) summarize the data collected during the entirety of the 12-month post-construction monitoring period and include any new data relevant to the evaluation that South Bend did not previously Submit to EPA or IDEM;
- (e) evaluate whether South Bend has any Unlisted Discharges;
- (f) evaluate whether South Bend's remaining CSO Discharges, if any, comply with all applicable requirements in this Appendix A, the Clean Water Act, State Law, and South Bend's NPDES Permits;
- (g) evaluate whether South Bend has eliminated Bypasses, or to the extent that South Bend has not eliminated Bypasses, evaluate whether South Bend's remaining Bypasses meet the conditions, including all applicable narrative and numeric effluent limitations, governing Bypass in South Bend's NPDES Permits; and
- (h) if model or monitoring results show that South Bend's CSO Control Measures did not meet or are not meeting Performance Criteria identify and describe in detail deficiencies or performance-limiting factors in system design, process, operations, and maintenance that may have limited the ability of the CSO Control Measures to achieve their intended performance. Thereafter, South Bend shall identify and describe in detail any and all necessary corrective measures, alternative operating strategies, structural modifications, and additional facilities and processes necessary to meet the Performance Criteria.

## **APPENDIX B**



**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF INDIANA  
SOUTH BEND DIVISION**

**UNITED STATES OF AMERICA, and** )  
**STATE OF INDIANA,** )  
 )  
 **Plaintiffs,** )  
 )  
 **v.** )  
 )  
**CITY OF SOUTH BEND, INDIANA,** )  
 )  
 **Defendant.** )  
\_\_\_\_\_ )

**Case No. 3:11CV505**

**APPENDIX B: SUPPLEMENTAL ENVIRONMENTAL PROJECT [COMPLETED]**

**I. REVIEW OF EXISTING WATER QUALITY STUDIES**

1. South Bend shall review and evaluate existing water quality studies and water quality data for Bowman Creek from available sources, including without limitation, studies and data possessed by South Bend, EPA, IDEM, USGS, STORET, and the St. Joseph River WISE Sampling Program.

**II. FIELD INVESTIGATION**

2. South Bend shall complete a field investigation of Bowman Creek and its tributary ditches, Eberly, Auten, and Philips and obtain analytical results of water samples collected during the field investigation. Starting at the Bowman Creek discharge point at the St. Joseph River, a two-person crew will walk upstream the entire length of Bowman Creek and its tributary ditches Eberly, Auten, and Philips during dry weather both inside



and outside the city limits of South Bend. South Bend shall perform, without limitation, the following tasks during the field investigation:

- a. during an initial phase of sampling, South Bend shall collect, and identify the location of, water samples at a minimum of ten locations along Bowman Creek, including the points of discharge of the tributary ditches into Bowman Creek. South Bend shall analyze the samples for phosphorus, ammonia, nitrates, *E. coli*, and surfactants. South Bend also shall measure dissolved oxygen and water temperature in the field with a portable meter and field probe;
- b. South Bend shall collect water samples at intervals of approximately 500 feet for a maximum total quantity of 140 samples along the areas of concern in Bowman Creek identified in the preceding Subparagraph to further isolate and identify problem areas. South Bend shall analyze the samples for phosphorus, ammonia, nitrates, *E. coli*, and surfactants. South Bend also shall measure dissolved oxygen and water temperature in the field with a portable meter and field probe;
- c. South Bend shall locate visible outfall pipes into Bowman Creek and its three tributary ditches using GPS equipment; take and document physical measurements of each outfall pipe; and collect up to a total of 50 samples of discharges observed at outfalls during the field investigation. South Bend shall analyze the samples for phosphorus, ammonia, nitrates, *E. coli*, and surfactants. South Bend also shall measure dissolved oxygen and water temperature in the field with a portable meter and field probe; and

- d. South Bend shall observe and document the channel condition, noting evidence of erosion or scour and areas that need maintenance.

### **III. EVALUATION AND REPORT OF IMPROVEMENT ALTERNATIVES**

3. Evaluation of Alternatives. Based on the review of existing water quality data, and the data and information obtained from the field investigation, South Bend shall evaluate the appropriateness and effectiveness of methods to reduce the levels of bacterial contamination entering, and restore Bowman Creek. South Bend shall assess, without limitation, the following methods: stream bank restoration, erosion control, sediment control and re-aeration, removal of point sources of wastewater, flow improvements, UV Disinfection, and maintenance and clean-up activities.
4. Report and Recommendations Regarding Alternatives. Within one year of the Effective Date of this Consent Decree, South Bend shall Submit to the United States and Indiana a report that includes:
  - a. a summary of information obtained from the field investigation, including a presentation of physical and analytical data, and GPS data regarding outlet pipe locations;
  - b. a summary that describes:
    1. the most environmentally beneficial pollution reduction and restoration project(s) not already required by law that South Bend could perform to improve water quality in Bowman Creek and its tributary ditches for a total estimated cost of up to \$50,000;
    2. South Bend's reasonable estimate of the cost of the project(s); and

3. a proposed schedule for completing the project(s) as expeditiously as reasonably possible; and
    - c. a certification that South Bend is not already required to conduct the project(s) pursuant to any federal, state, or local statute, regulation, or permit other than this Consent Decree.
5. South Bend shall wait 60 days from the date that South Bend Submits the report required by the preceding Paragraph before beginning work on the project(s) described in Subparagraph b.1 of the preceding Paragraph. If neither the United States nor Indiana object to either the proposed project or the proposed schedule for the project within 60 days from the date that South Bend Submits the report required by the preceding Paragraph, South Bend shall complete the project in the manner proposed, and in compliance with the schedule proposed in the report required by the preceding Paragraph.
6. If either the United States or Indiana notifies South Bend that the proposed project(s) or proposed schedule described in Paragraph 4.b of this Appendix B:
  - a. is not the most environmentally beneficial pollution reduction and restoration project(s) not already required by law that South Bend could perform to improve water quality in Bowman Creek and its tributary ditches for a total estimated cost of up to \$50,000;
  - b. is already required pursuant to a federal, state, or local statute, regulation, or permit other than this Consent Decree; or
  - c. is not as expeditious as reasonably possible,

within 60 days from the date that South Bend Submits the report required by Paragraph 4 of this Appendix B, the United States, Indiana, and South Bend shall confer informally to attempt to reach agreement regarding which projects South Bend shall complete and the schedule for those projects. If the United States, Indiana, and South Bend do not reach agreement regarding which projects South Bend shall complete and the schedule for those projects, the position of the United States and Indiana regarding which project(s) South Bend is required to complete, and the schedule for those projects, shall control subject to South Bend's right to invoke dispute resolution pursuant to Section XII (Dispute Resolution) of this Decree.