EPA's Review of Revisions to Indiana's Water Quality Standards:
CSO Wet Weather Limited Use Designation for White River, Fall Creek, Little Eagle Creek, Big Eagle Creek, Pogues Run, Pleasant Run and Bean Creek (327 IAC 2-1-11.5) and Revisions to CSO Wet Weather Limited Use (327 IAC 2-1-3.1)
Under Section 303(c) of the Clean Water Act
WQSTS # IN2007-180

Date: July 29, 2020

I. Executive Summary

On July 13, 2020, the U.S. Environmental Protection Agency received from the Indiana Department of Environmental Management (IDEM) changes to the State's water quality standards that revise the recreational use designation for seven waterbodies near Indianapolis so that they are now within the State's combined sewer overflow (CSO) wet weather limited use subcategory. Indiana also made several minor revisions to Indiana's existing CSO wet weather limited use regulation at 327 Indiana Administrative Code (IAC) 2-1-3.1.

As discussed in Section II of this document, EPA determines that these revisions are consistent with the relevant requirements of the Clean Water Act (CWA) and federal regulations at 40 CFR Part 131 and therefore approves the water quality standards revisions. Consistent with the requirements of the Endangered Species Act, EPA evaluated the potential impacts of its approval on federally-protected species and designated critical habitat. As discussed in Section III of this document, because the action pertains to water quality standards revisions of a human health-related designated use and is unrelated to protect aquatic life or wildlife, EPA concludes that it has no discretionary authority to take protection of listed species into consideration in its review of the adopted revisions and, thus, consultation with the U.S. Fish and Wildlife Service (FWS) is not required. Additionally, consistent with the "EPA Policy on Consultation and Coordination with Indian Tribes," EPA evaluated whether approval of the water quality standards revisions may affect the interests of federally-recognized tribes. As discussed in Section IV of this document, EPA concludes that approval will not impact tribal interests and that, therefore, tribal consultation is unnecessary.

II. EPA Review of IDEM's Submittal

Water quality standards requirements of CWA sections 101(a)(2) and 303(c)(2) are implemented through federal regulations contained in 40 CFR Part 131. Consistent with 40 CFR § 131.21, new or revised water quality standards do not become effective for CWA purposes until they are approved by EPA. The criteria by which EPA evaluates State-adopted water quality standards are identified in 40 CFR § 131.5(a)(1) through 40 CFR § 131.5(a)(8); EPA reviews each of these criteria below. Because the revisions do not affect Indiana's existing antidegradation policy or its implementation, grant any water quality standards variances, or affect Indiana's compliance schedule provisions, the water quality standards requirements in 40 CFR §§ 131.5(a)(3), (4) and (5) are not relevant in considering whether to approve Indiana's water quality standards revisions.

A. Whether the State has adopted designated water uses that are consistent with the requirements of the Clean Water Act. (40 CFR § 131.5(a)(1))

Section 101(a)(2) of the CWA states:

> it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.

Section 303(c)(2)(A) of the CWA requires states to establish water quality standards for their waters, taking into consideration the use of waters for "propagation of fish and wildlife" among other uses. 40 CFR § 131.10 governs designation of uses for surface waters. States must adopt uses consistent with those specified in Section 101(a)(2) of the CWA or demonstrate why attaining these uses is not feasible through a use attainability analysis (UAA). As specified at 40 CFR §§ 131.10(g) and (h)(1), states may not remove a designated use if it is an existing use.

1. Background

In evaluating Indiana's revisions to its water quality standards, it is useful to understand the following points:

A. The historical context of CSOs in the United States, EPA's CSO Policy and the Wet Weather Water Quality Act of 2000.
B. The State of Indiana's longstanding, codified policy decision that, once a CSO community has successfully implemented an approved Long Term Control Plan (LTCP) to achieve a high level of CSO control, water quality standards should be revised to allow for remaining residual CSOs.
C. The City of Indianapolis, Indiana has been implementing an approved LTCP within the agreed-upon schedule, consistent with the CSO Policy and Indianapolis' federal consent decree with the United States and the State of Indiana, that will achieve a high level of CSO control (an annual average of four or fewer CSOs for Indianapolis' five-year typical year period, as defined in Indianapolis' LTCP, for most waterways and an annual average of two or fewer CSOs for Fall Creek).
D. Under Indiana's revised water quality standards, Indiana's primary contact *E. coli* recreation criteria apply at all times during the recreational season unless a number of conditions are met, including that Indianapolis has successfully implemented its approved LTCP and achieved the high level of CSO control required by the approved LTCP.
E. Indianapolis has demonstrated that, following implementation of its LTCP, pollution sources other than CSOs will continue to cause Indianapolis' waterways to frequently exceed Indiana's primary contact *E. coli* recreation criteria during periods when CSOs are not occurring, thus still inhibiting safe primary contact recreation (primary contact recreation) with respect to water quality.
F. Indianapolis has demonstrated that, because of the high level of CSO control that Indianapolis will be achieving, once Indianapolis completes implementation of its LTCP,

CSOs will only occur during very large storms.[1] Indianapolis has also demonstrated that recreation has not been observed to have occurred during those very large storms on these waters and the flow conditions (dramatically increased velocities, flow rates and depths) resulting from those very large storms render Indianapolis' otherwise shallow, wadable waterways physically unsafe for primary contact recreation. Consequently, it is unlikely that Indianapolis' CSO-impacted waterways will be used for recreation during those very large storms when residual CSOs are occurring after full implementation of the LTCP. Community surveys conducted by Indianapolis confirm that the public rarely, if ever, uses Indianapolis' CSO-impacted waterways for primary contact recreation during the flow conditions that result from the very large storms that will cause Indianapolis' rare post-construction residual CSOs to occur.

G. Indianapolis has demonstrated that, on a per CSO event reduced basis, it will be approximately eight times more expensive to further reduce CSOs below four CSOs per typical year than the cost being incurred to reduce CSOs from 60 CSOs per typical year down to four CSOs per typical year.
H. Indianapolis has implemented and anticipates that it will continue implementing measures other than CSO control to reduce bacterial contamination from other sources and to otherwise increase the opportunities for safe recreational use of Indianapolis' waterways.

Each of these points is addressed more fully below.

a. CSOs, EPA's 1994 CSO Policy and the Wet Weather Water Quality Act of 2000

i. Historic Context for CSOs

The following excerpts from pages 2-1 and 2-2 of EPA's 2001 *Report to Congress – Implementation and Enforcement of the Combined Sewer Overflow Control Policy*: (2001 *Report to Congress*) explain why CSOs are common in older municipalities throughout much of the United States.

> In the mid-1800s, municipalities began installing public sewer systems to address health and aesthetic concerns. The waste treatment technology of the pre-sewer era, backyard privies and cesspools, were progressively less effective as cities grew. During this period, human waste was dumped into privy vaults and cesspools, and storm water ran into the streets or into surface drains. Increased population density along with the development of water utilities delivering water by pipe to residences and commercial buildings taxed this system. Cesspools and privy vaults were over capacity, which in turn caused nuisance, public health, and flooding problems (Melosi, 2000).

[1] Within this document, the term "very large storms" refers to storm events that produce at least 1.00 inch of rain in a three-hour period or 1.57 inches of rain in a 24-hour period. For most Indianapolis waterways under these conditions, CSOs will be reduced down to four or fewer per year for the five-year typical year period. For Fall Creek, CSOs will occur even less frequently and only during even larger storms that produce at least 1.27 inches of rain in a three-hour period or 1.99 inches of rain in a 24-hour period.

> [Combined Sewer Systems (CSSs)] were constructed to transport human waste and storm water away from dwellings and inhabited areas. The conveyance of sanitary waste and storm water runoff away from neighborhoods through a sewer pipe into local receiving waters became accepted practice. At this time, little precedent existed for underground sewerage systems, and engineers were reluctant to experiment with expensive capital works. Moreover, waste disposal in waterways was believed safe (Tarr, 1996). The decision to use combined sewers was made following a period of intense debate. Large cities tended to pursue combined sewers given the flood control advantages while smaller communities pursued separate storm and sanitary sewers. Combined sewers provided public health improvements and flood control benefits to local residents, though such projects created impacts on downstream communities (Melosi, 2000).
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> A better understanding of the disease-causing organisms in sewage and a recognition of health and nuisance conditions prompted a shift to wastewater treatment in the early 1900s. Wastewater treatment plants were sized and designed to treat sanitary waste, not a combination of sanitary waste and storm water runoff. The use of separate, and in some instances parallel, collection systems for storm water runoff and sanitary waste quickly became accepted practice. With the advent of wastewater treatment, the construction of new CSSs generally ceased.
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> CSSs were retained in many cities because the existing systems provided a network for the centralized collection of human and industrial waste. During dry weather periods, the performance of combined systems was generally adequate. During wet weather, however, the volume of sanitary wastewater and storm water runoff entering the combined systems often exceeded conveyance capacity. When this occurred, combined systems overflowed directly to surface water bodies. Sanitary officials originally believed that overflows were diluted to such an extent that they posed no serious water pollution problems. As designed, CSSs were expected to overflow.

As of 2001, there were 772 municipalities with combined sewer systems in the United States, with most of them located in older municipalities, primarily in the Northeastern, Midwestern and Great Lakes regions of the country. 2001 *Report to Congress* at ES-5 – ES-6.

ii. EPA's CSO Policy

Following enactment of the Clean Water Act in 1972, until the late 1980s, EPA's primary focus with respect to municipal sewage conveyance and treatment was to ensure that municipalities across the country upgraded their sewage treatment facilities to meet the Clean Water Act's secondary treatment standards. *See* 2001 *Report to Congress* at 2-6 (discussing the federal Construction Grant Program) and 2-8 (discussing EPA's 1984 National Municipal Policy on Publicly Owned Treatment Works). Between 1970 and 1995, more than $100 billion (2002 dollars) in federal Construction Grant money was spent (*see* EPA's 2004 *Report to Congress: Impacts and Control of CSOs and SSOs* at 2-7), most of which went toward upgrading sewage treatment plants, not improvements to address CSOs (2001 *Report to Congress* at 2-6). Approximately $200 billion or more in state, local and private funds was also spent on this effort. *See* EPA's 2000 *Progress In Water Quality Evaluation Of The National Investment In Municipal*

Wastewater Treatment at 1-4. These efforts were extremely successful, with most Publicly Owned Treatment Works (POTWs) being able to provide secondary treatment by 1996. *See id.* at ES-2.

As EPA neared completion of its efforts to ensure that municipalities completed construction of upgraded sewage treatment facilities to meet secondary treatment standards, EPA began to focus on CSOs due to the serious public health risks and adverse water quality impacts caused by them. As explained on page 1-3 of the 2001 *Report to Congress*,

> In early 1992, EPA accelerated efforts to bring combined sewer systems with CSOs into compliance with the CWA. The efforts included negotiations with representatives of the regulated community, state regulatory agencies, and environmental groups. The initiative resulted in the development of the CSO Control Policy, which was published in the Federal Register on April 19, 1994 (59 FR 18688). …
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> The CSO Control Policy is a comprehensive national strategy to ensure that municipalities, [National Pollutant Discharge Elimination System (NPDES)] permitting and water quality standards authorities, EPA, and the public engage in a comprehensive and coordinated planning effort to achieve cost-effective CSO controls that ultimately meet the requirements of the CWA. The key principles of the CSO Control Policy are:
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> - Provide clear levels of control that would be presumed to meet appropriate health and environmental objectives.
> - Provide sufficient flexibility to municipalities, especially to financially disadvantaged communities, to consider the site-specific nature of CSOs, and to determine the most cost-effective means of reducing pollutants and meeting CWA objectives and requirements.
> - Allow a phased approach to implementation of CSO controls considering a community's financial capability.
> - Review and revise, as appropriate, water quality standards and their implementation procedures when developing CSO control plans to reflect the site-specific wet weather impacts of CSOs.

The CSO Control Policy (CSO Policy or Policy) specifies, among other things, that CSO communities should go through an extensive, multi-step engineering, modelling and public outreach process to develop a LTCP to determine the long-term remedial measures that the community would implement to reduce and/or treat CSOs. 59 Fed. Reg. at 18,691-93. The Policy establishes two approaches, the "presumption" approach and the "demonstration" approach, that states and CSO communities can use to develop a LTCP. Where states choose to allow a LTCP based on the "presumption" approach, the Policy indicates that LTCPs designed to achieve a high level of CSO control, which the policy defines as including four CSOs per typical year level of control, would be presumed to be adequate to meet the water quality-based requirements of the Clean Water Act.

The costs to remedy the nation's CSO problems are significant. EPA estimated in its 2000 Clean Watersheds Need Survey that the costs of CSO control would exceed $50.6 billion in 2000

dollars. Unlike with the Construction Grants Program for upgrading wastewater treatment plants in the 1970s, 80s and early 90s, there is very little grant money available for CSO control and so CSO communities must pay for the bulk of their CSO control on their own. 2004 *Report to Congress: Impacts and Control of CSOs and SSOs* at 9-11 – 9-13.

The development and implementation of a LTCP is a technically challenging, disruptive, enormously expensive undertaking. As is described in EPA's 1995 guidance document entitled *Combined Sewer Overflows – Guidance for Long-Term Control Plan*, the LTCP development phase alone is typically a multi-year process involving (1) extensive hydraulic monitoring of flows throughout a community's sewer system and from its CSO outfalls; (2) utilizing the flow monitoring to develop a sophisticated computerized hydraulic model of the sewer system; (3) utilizing the hydraulic model so that design engineers can determine the sizes, types, costs and effectiveness of a range of alternatives (such as larger sewers, underground or above-ground storage basins and/or tunnels, remote treatment facilities to treat CSOs, expansion of existing treatment facilities, measures to keep stormwater out of combined sewer systems) that could be implemented to reduce and/or treat CSOs down to various levels of control; (4) water quality monitoring of CSO-impacted receiving streams and development of a water quality model to be used for evaluating the environmental impacts of the range of alternatives being evaluated; (5) soliciting and obtaining public input on selecting the LTCP based on an evaluation of the alternatives; and (6) interacting with, and obtaining approval from, state and federal regulatory authorities.

Then, once a LTCP is developed and approved by the state regulatory authority and, in some instances, also by EPA, it typically takes more than 10 years, oftentimes far more than 10 years, for the CSO community to implement the plan. *See* EPA "National Enforcement Initiative: Keeping Raw Sewage and Contaminated Stormwater Out of Our Nation's Waters: Status of Civil Judicial Consent Decrees Addressing Combined Sewer Systems May 1, 2017" (*Status of CSO Decrees),* available at http://www.epa.gov/sites/production/files /2017-05/documents/epa-nei-css-consent-decree-tracking-table-050117.pdf. This is because the substantial infrastructure work associated with solving sewer system problems can present extensive engineering challenges, logistical challenges (for example, sewer work frequently involves tearing up streets, and so the attendant traffic disruptions must be accounted for) and financial challenges (LTCPs for larger communities can cost hundreds of millions to billions of dollars, most of which must be paid for by the community itself, given the absence of any significant federal grant funding for CSO work). In fact, for many (if not most) CSO communities, LTCPs represent the largest infrastructure project that they have ever undertaken. *See, e.g.*, http://www.cityoffortwayne.org/latest-news/3770-mayor-henry-leads-groundbreaking-for-largest-infrastructure-project-in-fort-wayne-history.html; http://www.kcmo.gov/programs-initiatives/smart-sewer; http://www.oregonlive.com/portland/2013/11/post_381.html; http://www.evansville.in.gov/city/topic/index.php?topicid=208&structureid=24. Although many of these communities are still in the midst of implementing their LTCPs, some communities are nearing completion of implementation of their LTCPs.

The CSO Policy also specifies that, "[o]nce the permittee has completed development of the long-term CSO control plan and the selection of the controls necessary to meet CWA requirements has been coordinated with the permitting and water quality standard authorities, the

permitting authority should include, in an appropriate enforceable mechanism, requirements for implementation of the long-term CSO control plan as soon as practicable," 59 Fed. Reg. at 18,696. The enforceable mechanism could be a permit, administrative order or judicial order, 59 Fed. Reg. at 18,697. Generally, for all but the largest CSO communities, the enforceable mechanisms for implementing LTCPs have been state judicial orders, state administrative orders or state-issued NPDES permits. *See* spreadsheet entitled "Permit Data – 09-2018.xls," available from EPA, Region 5, Water Division. For larger communities, EPA established a National Compliance Initiative (NCI) to address keeping raw sewage and contaminated stormwater out of our nation's waters, which included addressing CSOs. As EPA explains on its website at http://www.epa.gov/enforcement/former-national-compliance-initiative-keeping-raw-sewage-and-contaminated-stormwater-out:

> Under this initiative, EPA has taken actions at 97 percent of large combined sewer systems, 92 percent of large sanitary sewer systems and 79 percent of Phase 1 municipal separate stormwater systems. Accordingly, the Agency believes that this NCI no longer presents a significant opportunity to correct water quality impairment nationwide. … Since this NCI began in 2000, the EPA, in conjunction with state co-plaintiffs, has taken enforcement actions at the largest municipal sewer systems with CWA violations to reduce pollution and to reduce unlawful discharges of raw sewage that degrade water quality in communities.

As part of the NCI, EPA entered into judicial consent decrees with approximately 45 CSO communities to require implementation of LTCPs. *See Status of CSO Decrees*.

The CSO Policy recognizes that states have flexibility with respect to addressing residual CSOs that remain after successful implementation of LTCPs that are causing or contributing to exceedances of water quality standards. One option that states can pursue is to "require[ ] the CSO community to develop, submit and implement as soon as practicable, a revised CSO control plan which contains additional controls to meet [water quality standards] and designated uses." 59 Fed. Reg. at 18,696. Another option that states have discretion to pursue is to "adapt their [water quality standards], and implementation procedures to reflect site-specific conditions including those related to CSOs." *Id.*at 18,694. For example, states may "adopt partial uses by defining when primary contact recreation such as swimming does not exist, such as during certain seasons of the year in northern climates or during a particular type of storm event." *Id.* at 18,695.

iii. The Wet Weather Water Quality Act of 2000

On December 21, 2000, Congress afforded the CSO Policy a special status under the Clean Water Act, by enacting the Wet Weather Water Quality Act of 2000 and creating a new Section 402(q) of the Act, 33 U.S.C. § 1342(q), which requires that:

> Each permit, order, or decree issued pursuant to [the Clean Water Act] . . . for a discharge from a municipal combined storm and sanitary sewer shall conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994.

The Wet Weather Water Quality Act at the new Section 402(q) required EPA to "issue guidance to facilitate the conduct of water quality and designated use reviews for municipal combined sewer overflow receiving waters."

iv. Summary Regarding CSOs, EPA's 1994 CSO Policy and the Wet Weather Water Quality Act of 2000

Municipalities in the United States have gone through several periods of implementing costly infrastructural improvements to reduce public health risks from sanitary sewage and stormwater. One period occurred from the mid-1880s through the early 1900s, when municipalities constructed sewers to transport sanitary sewage and stormwater away from population centers into area streams. A second period occurred from the early 1970s through the early 1990s, when municipalities upgraded sewage treatment facilities to be able to achieve secondary effluent limitations. The massive infrastructure work performed in these two periods significantly reduced public health risks posed by human sewage and stormwater.

Combined Sewer Systems and CSOs, such as Indianapolis', are the result of decisions made in the late 19th and early 20th centuries, based on then state-of-the-art knowledge, as to how municipalities could best protect their communities from the harmful effects of sewage and stormwater. Since EPA's publication of its 1994 CSO Policy, a policy that Congress afforded a special status to when it enacted Section 402(q) of the Clean Water Act, CSO communities across the country, in close collaboration with their state environmental agencies and, in some instances, EPA, have expended significant resources implementing their LTCPs in accordance with the CSO Policy to reduce their discharges of CSOs. As with the first two periods of infrastructural improvements noted above, the work performed during this third period should again significantly reduce public health risks posed by human sewage by dramatically reducing the number of CSOs down to a very small number, with any remaining CSOs that states and cities choose to allow only occurring as the result of very heavy rainstorms. Indianapolis expects to complete implementation of its approved LTCP in 2025 and, thus, is one of the first large CSO communities to be nearly complete with implementation of its approved LTCP.

b. The State of Indiana's longstanding, codified policy decision in accordance with the CSO Policy that, once a CSO community has successfully implemented an approved LTCP to achieve a high level of CSO control, water quality standards should be revised to allow for remaining residual CSOs

As described above in Section II.A.1.a.ii, the CSO Policy recognizes that states have discretion with respect to addressing residual CSOs that remain after successful implementation of approved LTCPs. For example, some states may choose as a matter of policy to require their CSO communities to continue to make progress toward eliminating all CSO discharges, and so could choose to require their CSO communities to continue to evaluate and implement alternatives for reducing and or treating CSOs that remain after implementation of an approved LTCP.

Indiana, however, long ago chose to pursue tailored revisions to water quality standards to allow residual CSOs after implementation of an approved LTCP to be authorized. rather than requiring

additional CSO control. Specifically, in 2005, Indiana's legislature enacted legislation stating that "[u]pon implementation of the approved long term control plan, the plan fulfills the water quality goals of the state with respect to wet weather discharges that are a result of overflows from the combined sewer system addressed by the plan." Indiana Code § 13-18-3-2.3(a). The legislation also established:

> A CSO wet weather limited use subcategory … for waters affected by receiving combined sewer overflows, as specified in an approved long term control plan. The CSO wet weather limited use subcategory applies to a specific water body after implementation of an approved long term control plan for the combined sewer system whose overflow discharges affect those waters is implemented and [certain conditions] are satisfied.

Indiana Code § 13-18-3-2.5(a).

c. Indianapolis has been implementing a LTCP consistent with the CSO Policy, its approved LTCP, and its federal consent decree with the United States and the State of Indiana that will achieve a high level of CSO control

The following excerpt from page 1-1 of Indianapolis' November 2017 Update to its *Raw Sewage Overflow Program Long Term Control Plan Report* summarizes the City's development of its LTCP and the City's LTCP itself.

> The City initially submitted its LTCP to the Indiana Department of Environmental Management (IDEM) and the U.S. Environmental Protection Agency (U.S. EPA) on April 30, 2001. The City received comments on the 2001 plan from U.S. EPA on June 28, 2001, and from IDEM on June 28, 2002. This plan was revised, updated and expanded to respond to the agencies' comments and requirements, as well as to include local public involvement and comment. The LTCP was approved by entry of the Consent Decree in December 2006. Several amendments to the Consent Decree have since been approved. The First Amendment to the Consent Decree modified CSO Control Measures 16, 27 and 28 and was approved in 2009. The Second Amendment implemented the "Modified Enhancement Plan" in 2010, which modified 14 of the original 31 CSO Control Measures, added two CSO Control Measures, and removed one CSO Control Measure. The Third Amendment, approved in 2013, described the transfer of utility from the City of Indianapolis to the Authority.
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> The LTCP describes the control measures that have been chosen for reducing combined sewer overflows (CSOs) and improving water quality in Marion County. The document includes a discussion of regulatory requirements, existing water quality conditions, available control technologies, an evaluation of alternatives, public input on alternatives, a financial capability assessment, the LTCP, and a description of the Authority's compliance monitoring program. This section provides background information on regulatory requirements and water quality issues in Indianapolis.

> The plan is a watershed-based plan that protects and improves upon existing uses of our waterways, helps restore beneficial uses and improve the quality of life in many Indianapolis neighborhoods. In a typical year, the plan will achieve 97 percent capture of wet-weather sewer flows on Fall Creek and 95 percent capture on other waterways, as further described in Section 7. The selected plan also is expected to reduce overflow frequency from 60 storms per year to two storms in a typical year on Fall Creek and four storms per year on other waterways, based on average annual rainfall statistics.

The LTCP "represent[s] the largest public works investment ever in the City of Indianapolis." Indianapolis November 2017 Update to its *Raw Sewage Overflow Program Long Term Control Plan Report* at 4-1. The total cost to the City's ratepayers to implement the LTCP is expected to be $2.06 billion (in 2016 dollars). LTCP at 7-3.

As noted above, the LTCP, including the LTCP's Performance Criteria reflecting the LTCP's high level of CSO control of four CSOs per typical year for most waterways and two CSOs per typical year for Fall Creek, was originally approved upon entry of the consent decree in December 2006. Indianapolis has met all the consent decree construction deadlines and is scheduled to complete implementation of its LTCP and achieve the Performance Criteria by the originally-agreed-upon date of December 31, 2025.

d. Indiana's primary contact *E. coli* recreation criteria apply at all times during the recreational season unless a number of conditions are met, including that Indianapolis has successfully implemented its approved LTCP and achieved the high level of CSO control required by the approved LTCP.

IDEM's regulations provide that specific CSO-impacted waters can be placed into the CSO wet weather limited use subcategory prior to a CSO community's completion of implementation of the approved LTCP. *See* 327 IAC 2-1-3.1. Indiana's statutory provisions (Indiana Code § 13-18-3-2.5) creating the CSO wet weather limited use subcategory make clear that, once IDEM places specific CSO-impacted waters into the subcategory and that action is approved by EPA under 40 CFR Part 131 and becomes effective for Clean Water Act purposes for the specific waters, Indiana's primary contact *E. coli* recreation criteria apply at all times unless a number of conditions specific to the CSO-impacted waters are met, including that the approved LTCP has been implemented. IDEM has clarified that the phrase "after implementation of the [LTCP]" in IC § 13-18-3-2.5 includes both that the measures in the LTCP have been constructed and that the LTCP's performance criteria have been achieved. When the specified conditions are met, the *E. coli* criteria do not apply during and for periods of not more than four days after CSO discharges occur that are consistent with the performance criteria contained in the City's approved LTCP.

e. Indianapolis has demonstrated that, following implementation of its LTCP, pollution sources other than CSOs will continue to cause Indianapolis' waterways to frequently exceed Indiana's primary contact *E. coli* recreation criteria during periods when CSOs are not occurring.

Indianapolis demonstrated that its CSO-impacted waterways frequently exceed Indiana's single sample maximum *E. coli* criterion to protect Indiana's primary contact recreation use criterion of 235 colony forming units (cfu) per 100/mL due to CSOs and several non-CSO sources including stormwater, failing septic systems, illicit sanitary connections to storm sewers, urbanization, domestic animals and wildlife, and wastewater plant discharges. CWA Authority, Inc. UAA – July 2019 (hereafter referred to as UAA) at 9-16. Indianapolis also demonstrated that its CSOs are the largest single source of *E. coli* loadings into the waterways. UAA at 9-17, Table 9-2. Indianapolis showed that, prior to implementing its LTCP, Indianapolis' CSOs were responsible for substantially increasing the magnitude of the exceedances of Indiana's single sample maximum *E. coli* criterion. Specifically, Indianapolis demonstrated the following:

- Prior to Indianapolis' implementation of the LTCP, *E. coli* in CSO-impacted waterways was projected to exceed the single sample maximum criterion of 235 cfu per 100 mL on approximately 178 days per year, with CSOs causing *E. coli* levels to exceed 10,000 cfu per 100/mL (potentially reaching maximum instream *E. coli* concentrations in the hundreds of thousands or even greater than 1 million cfu per 100 mL) on 52 days per year. LTCP at 4-90 and 4-97.
- Once the LTCP is implemented, the projected number of days that the CSO-impacted waterways would exceed 235 cfu per 100 mL would be reduced down to 157 days per year, with CSOs contributing to those exceedances on only 21 of those 157 days; and the number of days when *E. coli* would exceed 10,000 cfu per 100 mL would be reduced down to 4 days. LTCP at 4-90, 4-92, 4-94 and 4-97.

Thus, implementation of the LTCP will reduce public health risks by reducing the number of days when in-stream *E. coli* concentrations exceed 235 cfu per 100 mL and by drastically reducing the number of days that in-stream *E. coli* concentrations are above 10,000. However, notwithstanding the important benefits that will result from implementation of the LTCP, even when CSOs are not discharging, non-CSO sources will continue to cause Indianapolis-area waterways to exceed Indiana's single sample maximum *E. coli* criterion to protect Indiana's primary contact recreation use criterion of 235 cfu per 100/mL on approximately 136 days or more per typical year.

f. Indianapolis has demonstrated that, because of the high level of CSO control that Indianapolis will achieve once it completes implementation of its LTCP, CSOs will only occur during very large storms, when recreation has not been observed on these waters and flow conditions (dramatically increased velocities, flow rates and depths) render Indianapolis' otherwise shallow, wadable waterways unsafe for primary contact recreation, and so it is unlikely that Indianapolis' CSO-impacted waterways will be used for primary contact recreation when post-LTCP residual CSOs are occurring.

Indianapolis has provided extensive evidence that recreation will not occur during the very large storm events that will be necessary to cause CSOs to occur after the City has implemented its LTCP. Specifically, the City has demonstrated that, given the high level of control that will be achieved by the City's LTCP, the City's residual CSOs will only occur during very large storm events. For water bodies where CSOs will be reduced down to four or fewer per year for the five-year typical year period, CSOs will only occur during 3-month, 24-hour storm events (equivalent to 1.00 inch of rain in a three-hour period or 1.57 inches of rain in a 24-hour period) or greater. For Fall Creek, CSOs will only occur during the 6-month, 24-hour storm event (equivalent to 1.27 inches of rain in a three-hour period or 1.99 inches of rain in a 24-hour period) or greater.

The City performed an "existing use" evaluation of whether and when recreational activities occur in the CSO-impacted waterways. Based on physical stream surveys, public stream use surveys and County Health Department reports, that evaluation demonstrated that there have been no wading, swimming, kayaking or other primary contact recreation activities observed in those waters during the types of very large storm events that would result in CSOs following implementation of the City's LTCP.

One of the primary reasons identified by the City for why primary contact recreation activities do not occur and are not expected to occur during the storm events that would result in CSOs following implementation of the LTCP is that high flow conditions during and after those storm events make primary contact recreation activities unsafe. Specifically, the City demonstrated that:

- All the water bodies proposed to be affected by revised recreation uses are relatively shallow, wadable rivers, streams and creeks that United States Geological Survey (USGS) personnel typically monitor via wading, unless such personnel determine that flow conditions render wading unsafe. Where USGS personnel determine that wading is unsafe, they monitor the water bodies using acoustic Doppler current meters deployed from bridges or a tethered boat. USGS personnel note in their field sheets which monitoring method (wading or Doppler) was used and the flow conditions that led them to decide not to wade.
- The City obtained the USGS monitoring field sheets and compared the peak flows, velocities and depths that were present when USGS personnel determined that it would be unsafe to wade in each specific water body to the peak flows, velocities and depths that would occur during the very large storm events that will result in CSOs following the City's implementation of the LTCP. Those comparisons demonstrated that the peak

flows and velocities during CSO events will be 4-10 times higher than the flows and velocities that USGS personnel deem to be unsafe for wading, and the peak depths will be 3-6 times higher.

- The CSO volumes represent a small portion (1%-19%) of the total flows, velocities and depths that would occur during the very large storm events that will result in CSOs following the City's implementation of the LTCP. Therefore, even if CSO volumes are removed from the total flows in those streams, the high flow conditions in those streams would still be several times higher than the flows, velocities and depths that USGS personnel deem to be unsafe for wading.
- For relatively shallow, wadable waters, historic data on USGS staff decisions as to whether it is safe to wade in the waters is useful information to assist in determining whether it is safe to engage in primary contact recreation activities in those waterbodies during high flow conditions. As the City explained in its UAA:

  > One gauge of safety for water contact recreation is the safety of wading, since streams that are not safe for wading would also not be safe for swimming or other water contact activities. Each wader should know and strictly adhere to their personal wading abilities and limitations. When stream flows are low, trained USGS employees measure stream discharge by wading into the stream. When stream flows are high or potentially dangerous, USGS hydrologists make discharge measurements using acoustic Doppler current meters deployed from a tethered boat. … Although USGS hydrologists occasionally wade at higher flows, they are equipped with a personal flotation device and have extensive wading safety training and experience. It would not be safe for an inexperienced person to wade the stream at such high flows.
- The City has a public notification and education program in place to warn the public to not enter the CSO-impacted waterways following CSO events. This education and notification program could also be used to warn the public to not enter the waterways during unsafe flow conditions.

Water quality and hydrologic modeling conducted by the City indicate that the high flow conditions that render recreation unsafe in these waters will persist for longer than the water quality impacts of the CSOs. As described in Table 9-12 of the UAA, Indianapolis determined that the high flow conditions during which the City's residual CSOs will occur are expected to persist for 48 hours on Pleasant Run and 96 hours on all other CSO-impacted waterways. Water quality modeling conducted by the City indicates that, during and after rain events that trigger CSO discharges, CSOs will impact stream reaches for between 6 and 38 hours, with "the majority of events maintaining impacts of less than 30 hours."

g. On a per CSO event reduced basis, it will be approximately eight times more expensive to further reduce CSOs below 4 CSOs per typical year than the cost to reduce CSOs from 60 CSOs per typical year down to 4 CSOs per typical year.

Cost estimates provided in the City's LTCP indicate that the cost to the City in 2016 dollars per CSO event eliminated to reduce CSOs from an annual average of 60 CSO events down to an annual average of four CSO events has been approximately $36 million per annual CSO event

eliminated. The cost to the City in 2016 dollars to further reduce average annual CSO events below four CSO events per typical year would likely be $280 million or more for each additional event reduced and the cost per CSO event eliminated is expected to increase for each additional CSO event eliminated.

h. Indianapolis has implemented and anticipates that it will continue implementing measures other than CSO control to reduce bacterial contamination from other sources and to otherwise increase the opportunities for safe recreational use of Indianapolis' waterways.

Indianapolis identified several ongoing and potential future efforts to reduce the non-CSO sources identified above that contribute to exceedances of Indiana's single sample maximum *E. coli* criterion in the CSO-impacted waterways. These non-CSO sources thus also affect the ability of the public to safely recreate in these waters. Specifically, in the LTCP and UAA, the City identified the ongoing programs listed below to address stormwater and failing septic systems. As discussed above, control of these non-CSO sources would be necessary to achieve attainment of Indiana's *E. coli* criterion to protect Indiana's primary contact recreation use in these specific waters regardless of the reduction of CSO events.

- The City implements stormwater controls to the "maximum extent practicable" through its NPDES municipal separate storm sewer system (MS4) program. This includes revisions to the City's Stormwater Design & Construction Specifications Manual and stormwater ordinances that require new development and significant redevelopment projects to meet post-construction stormwater runoff control requirements through the use of best management practices (BMPs) (e.g., stormwater detention ponds, constructed wetlands and buffer strips) to promote infiltration of stormwater and reduce pollutants in stormwater. Additionally, the City offers a stormwater utility credit for nonresidential property owners that maintain stormwater control facilities to reduce stormwater released from their property. According to the City's 2016-2017 Annual Report for its NPDES Municipal Stormwater Permit, the City spent more than $13 million each year in 2016 and 2017 on storm water operations and $12 million in 2016 and $29 million in 2017 on stormwater capital projects. As discussed in Section II.A.1.e above, the City's UAA identified stormwater as one of the non-CSO sources of pollutants contributing to exceedances of Indiana's single sample maximum *E. coli* criterion to protect its primary contact recreation use. Therefore, the City expects implementation of stormwater controls to result in pollutant loading reductions to these waters and potentially reductions in exceedances of Indiana's single sample maximum *E. coli* criterion.
- The City implements a watershed-based strategy for restoring stream banks to improve water quality. As discussed in the LTCP, the streambank restoration program is intended to reduce non-point source pollution, which may include pathogens. Additionally, the City expects streambank restoration activities to improve dissolved oxygen levels in the waterways.
- The City operates a Septic Tank Elimination Program (STEP) to eliminate failed septic systems that contribute bacteria to rivers and streams. Through STEP, the City reduces the costs to property owners of connecting to the sewer system by taking on the contracting responsibilities. The City currently invests more than $6 million annually in

the STEP program and, as of 2019, STEP has connected more than 7,000 properties to the sewer system. *See* Septic Tank Elimination Program (STEP) Guide, dated March 5, 2020.

- The City's integrated planning costs from Table 6-5 of LTCP, per Section 9.4.4.1, include costs for source water protection activities such as flood control, stream stabilization and wellhead protection costs. The LTCP lists the projected annual costs for these activities in 2025 as $4.855 million for incremental operations and maintenance costs and Pay Go Capital and $13.3 million for integrated planning capital costs.

Additionally, while not cited in the UAA, several organizations (including City of Indianapolis and Citizens Energy) coordinated to evaluate long-term improvements for the White River and developed the Draft White River Vision Plan (accessible at: http://mywhiteriver.com/wp-content/uploads/2019/06/White-River-Vision-Plan-Report_June-3-Draft.pdf), which aims to "enhance 58 miles of the White River in Marion and Hamilton counties" to "create an accessible, *recreational*, and cultural environment that encourages a unique sense of place for the community as a whole" (emphasis added). White River Plan Task One Inventory and Peer Research at 4. Based on feedback from eleven public meetings and discussion within the project leadership group, the Draft White River Vision Plan identified recommendations to accomplish goals that include policies, programs, outreach, capital investments and maintenance.

In evaluating the current limitations to recreation, the Draft White River Vision Plan identified both water quality and non-water quality limitations. The identified water quality limitations include both CSO and non-CSO sources of bacteria to the White River, such as upstream agricultural pollution, stormwater outfalls, failing septic tanks, broken sewer pipes and pet waste. While the City's LTCP (also referred to as DigIndy) is expected to significantly reduce the CSO sources of bacteria, the Draft White River Vision Plan determined that corresponding reductions to the non-CSO bacteria sources would also be necessary to reduce bacteria concentrations to the levels necessary to be protective of primary contact recreation:

> "Swimming in the river is another long-term goal, said Andrea Watts, chief communications officer for the Department of Metropolitan Development. The completion of Citizen's Energy's DigIndy project in 2025 will prevent 97 percent of sewer overflows, solving a major water quality issue for the river, Watts said via email. But runoff from urban and agricultural sources will continue to complicate any plans to allow people to swim." Indianapolis Star, February 1, 2019.

> "One major success story is the DigIndy tunnel, a Citizens Energy project that now prevents millions of gallons of sewage from flowing into the river every time it rains. The White River still has challenges, [Brad Beaubien, City Administrator of long range planning] noted — runoff from farms and cities, leaking septic tanks and the remaining combined sewer systems in other cities — but he looks at the White River Vision Plan as an opportunity to address some of the ecological challenges." Indianapolis Star, October 22, 2018.

Based on these considerations, the Draft White River Vision Plan concluded that "[e]fforts to reduce bacteria in the river must involve everybody, as everyone contributes in some way." Draft White River Vision Plan at 82.

The non-water quality limitations identified by the Draft White River Vision Plan included limited public access and instream limitations such as levees and low-head dams that restrict access and prevent safe recreation. In the eleven public meetings conducted by the White River Vision Plan Core Team and Project Team in 2018 and 2019, "water access and transportation consistently ranked as the most discussed ideas for the White River." Draft White River Vision Plan at 30. The Draft White River Vision Plan includes recommendations to improve access to the river, since "[l]ess than half of the river is publicly owned- or accessible" and "[a]ccess to the river from major public rights-of-way is an issue throughout the study area." Draft White River Vision Plan at 124.

Because of the wide range of recommendations identified to improve recreation near Indianapolis and the wide geographic scope, the Draft White River Vision Plan determined that "[a] coordinating entity or consortium of entities is required to hold the White River Vision Plan and drive implementation," through strategic planning, marketing, advocacy, fundraising, partnerships and technical assistance. Draft White River Vision Plan at 212-213. Additionally, each individual project will require capital investment and potentially supplemental maintenance and operations. Draft White River Vision Plan at 213. As discussed in a June 3, 2019 WISHTV news article, "[t]he conservative price for this 30-year plan is in the billions. But nothing will get done without a management structure, which officials hope to have in place before summer ends." The City of Indianapolis Department of Metropolitan Development is a member of the "Core Team" for the White River Vision Plan and Citizens Energy has participated on the Stakeholder Committee. However, a coordinating entity and capital funding mechanism to implement specific projects identified in the White River Vision Plan has not been identified yet.

2. Whether attaining the primary contact recreation designated use is not feasible because of one of the factors specified in 40 CFR § 131.10(g).

Under 40 CFR §§ 131.10(g) and 131.10(j)(2), states may remove a designated use that is not an existing use and replace that use with a sub-category of a designated use that requires criteria less stringent than previously applicable if "attaining the use is not feasible because of one of the six factors in [40 CFR § 131.10(g)]." One of the six factors (40 CFR § 131.10(g)(3)) is that "[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place."

Indianapolis has committed to implementing an approximately $2 billion LTCP consistent with the CSO Policy, its state and federally-approved LTCP through a federal consent decree with the United States and State of Indiana, and Indiana's 1996 *Combined Sewer Overflow Strategy*, that requires the City to achieve a high level of CSO control by December 31, 2025, as originally agreed upon. This work, which must be implemented before the less stringent *E. coli* requirements pertaining to post-LTCP residual CSOs established by the water quality standards revisions at issue here will be applicable, will substantially reduce public health risks and improve the recreational potential of the area's waterways by eliminating all but a small number

of CSO discharges (four or fewer in a typical year) that occur during particularly heavy rain events when recreation is unlikely to occur due to high flow conditions in Indianapolis' otherwise wadeable waterways.

As also described above in the background section of this document (Section II.A.1), although implementation of the LTCP will significantly decrease public health risks by eliminating CSO impacts to the waterways except for during and immediately after very large storms, Indianapolis has demonstrated that human-caused sources of pollution from both CSO and non-CSO sources will still cause *E. coli* levels to exceed Indiana's single sample maximum *E. coli* criterion of 235 cfu/100 mL on approximately 157 days per typical year. For 21 days per typical year, CSOs will still contribute to exceedances of Indiana's single sample maximum *E. coli* criterion. However, as discussed in Section II.A.1.f above, Indianapolis demonstrated that recreation does not occur and is not anticipated to occur due to safety concerns during the high flow conditions that coincide with when its occasional, residual CSOs occur (four or fewer in a typical year). Therefore, while CSO discharges will continue to cause *E. coli* levels to exceed Indiana's single sample maximum *E. coli* criterion, the UAA evidence showing that no recreation occurs during these large storm events in Indianapolis's waters demonstrates that there would be no appreciable gain in opportunities for safe public recreation if the community were to implement additional controls to prevent residual CSO discharges that would occur after implementation of its LTCP. As discussed in Section II.A.1.e above, on 136 of those days, the *E. coli* would be entirely the result of sources other than Indianapolis' CSOs. Given that these exceedances occur during lower flow conditions when recreation is more likely to occur than the high flow conditions that will be present when CSOs are occurring, preventing these exceedances would greatly reduce the public health risks when exposure is potentially greater and improve the recreational potential of area waterways. Consequently, activities to reduce non-CSO sources of pathogens would provide a greater environmental benefit than activities to prevent CSO discharges beyond the level of control required by the City's LTCP.

Finally, in evaluating the feasibility of attaining the primary contact recreation use, it is important to keep in mind that municipalities and the public who provide the funds for municipalities have limited resources to address water quality problems that would involve funding sewer system improvements and other necessary services and infrastructure improvements. Focusing on further CSO control could limit Indianapolis' ability to address its most serious water quality issues first. For the past few decades, CSO control has been a high priority for Indianapolis, as is evident from the large amount of financial and other resources Indianapolis has expended to implement its LTCP. Once that work is completed, it is reasonable to believe that further investments in CSO controls would no longer be addressing Indianapolis' highest priority water quality issues. Specifically, Indianapolis spent $2 billion to develop and implement its LTCP to reduce CSOs from 60 per typical year down to 4 or fewer per typical year (approximately $36 million per CSO event reduced). As noted above in Section II.A.1.c, this is considered "the largest public works investment ever in the City of Indianapolis." If Indianapolis continues investing its resources to reduce CSOs even further (at an estimated cost of $280 million for each additional typical year CSO event eliminated, or nearly eight times more per CSO event than the cost of its current LTCP), that would almost certainly come at the expense of Indianapolis funding other projects or services to improve water quality and provide increased opportunities for safe recreation to its public, such as the City's Septic Tank Elimination

Program, stormwater management activities, integrated planning activities and activities related to the White River Vision Plan (all discussed above), which all contribute to reducing the number of exceedances of Indiana's single sample maximum *E. coli* criterion. As shown by the evidence that the public is not recreating during the large storm events that cause the residual CSO events, investing such a large amount of Indianapolis' limited budget to remove even just one more overflow would result in a minimal increase in opportunities for safe recreation consistent with the designated use. However, as discussed above, prioritizing these resources to address non-CSO pollution/bacteria sources and other impediments to increased recreational use of Indianapolis' waterways would have a greater environmental impact by providing more opportunities for safe recreational uses due to reductions in pollutant loading during lower flow conditions when the public is more likely to recreate.

40 CFR § 131.10(g)(3) provides that the infeasibility demonstration requirement in 40 CFR § 131.10(g) can be met by demonstrating that "[h]uman caused conditions or sources of pollution prevent attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place." EPA concludes both that "human caused conditions or sources of pollutants [*i.e.*, residual, post-LTCP CSOs] prevent attainment of the use" and that it "would cause more environmental damage to correct [the residual, post-LTCP CSOs] than to leave in place" and so 40 CFR § 131.10(g)(3) is satisfied based on all of the following:

> (a) the City of Indianapolis will complete implementation of its state and federally-approved LTCP in accordance with the CSO Policy, its federal consent decree with the United States and the State, and achieve a high level of control of four CSOs per typical year or better (two CSOs for Fall Creek);
>
> (b) rather than requiring its CSO communities to invest additional resources to reduce CSOs beyond the high level of control required by State-approved LTCPs designed to achieve high levels of CSO control, the State of Indiana has determined that "[u]pon implementation of the approved long term control plan, the plan fulfills the water quality goals of the [S]tate with respect to wet weather discharges that are a result of overflows from the combined sewer system addressed by the plan;" Indiana Code § 13-18-3-2.3(a);
>
> (c) because of Indianapolis's high level of CSO control, CSOs will only occur during very large storms, when data show that primary contact recreation is not an existing use and primary contact recreation during these large storms is not expected because flow conditions (dramatically increased velocities, flow rates and depths) render the impacted waterways physically unsafe for primary contact recreation;
>
> (d) the high flow conditions that correspond to periods when residual CSOs will occur after implementation of the LTCP persist for longer than the water quality impacts of CSO discharges;
>
> (e) following implementation of its LTCP, sources of *E. coli* other than CSOs will continue to cause impacted waterways to exceed the State's primary contact recreation *E. coli* criteria for approximately 136 days of the year, including during periods when

CSOs are not occurring and when the public is more likely to recreate on or in these waters;

(f) the cost of further reducing CSOs to correct the high *E. coli* conditions that will result from the small number of residual CSOs that will occur during very large storms following implementation of the approved LTCP is substantially higher on a typical CSO event per year reduced basis than the cost of reducing CSOs under the approved LTCP and would commit a significant portion of the City's resources;

(g) the community is prioritizing and anticipates it will continue to prioritize efforts and resources to increase the opportunities for safe recreation consistent with the designated use by implementing measures to address non-CSO sources of *E. coli* and other impediments to increased recreational use of area waterways; and

(h) prioritizing resources to address non-CSO pollution sources and other impediments in these specific waters of Indianapolis would lead to increased safe recreational use of area waterways.

Thus, human-caused sources of pollution (*i.e.*, CSO discharges that will occur after full implementation of the City's LTCP) will prevent attainment of the use (*i.e.*, primary contact recreation) and it "would cause more environmental damage to correct" the CSO sources of *E. coli* (*i.e.,* to require controls in addition to implementation of the approved LTCP to further reduce CSOs beyond four CSOs in the typical year) than to leave those sources (*i.e.,* CSOs remaining after implementation of the approved LTCP) in place. This is because requiring further CSO controls after Indianapolis' implementation of the approved LTCP would inhibit the City of Indianapolis's ability to prioritize its resources to implement activities that would have greater environmental benefit than further CSO controls. Specifically, the City could achieve greater environmental benefits in terms of increased opportunities for safe recreation through reducing *E. coli* contributions from non-CSO sources that prevent safe recreation during times the public is most likely to recreate in these specific waters as compared with further CSO control beyond the level of control specified in the originally approved LTCP that would reduce *E. coli* during high flow conditions when the City of Indianapolis has documented that the public does not recreate and that it is unsafe for the public to recreate. Consequently, EPA concludes that Indiana's revised water quality standards satisfy 40 CFR § 131.10(g) in that "[h]uman caused conditions or sources of pollution [i.e., residual CSOs remaining after implementation of the LTCP] prevent attainment of the use and . . . [it] would cause more environmental damage to correct than to leave [those CSOs] in place."

3. Whether the State adopted the highest attainable use for each of the waterways affected by the revised water quality standards.

40 CFR § 131.10(g) requires that "[i]f a State adopts a new or revised water quality standard based on a required use attainability analysis, the State shall also adopt the highest attainable use, as defined in §131.3(m)." 40 CFR § 131.3(m) defines the highest attainable use as

> "the modified aquatic life, wildlife, or recreation use that is both closest to the uses specified in section 101(a)(2) of the Act and attainable, based on the evaluation of the factor(s) in § 131.10(g) that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability."

As noted above, Indiana's statutory provisions (Indiana Code § 13-18-3-2.5) creating the CSO wet weather limited use subcategory provide that once IDEM places specific CSO-impacted waters into the subcategory and that decision is approved by EPA under 40 CFR Part 131 and becomes effective for Clean Water Act purposes for the specific waters, then:

> (1) The water quality-based requirements associated with the CSO wet weather limited use subcategory that apply to waters affected by wet weather combined sewer overflows are determined by an approved long term control plan for the combined sewer system. The water quality-based requirements remain in effect during the time and to the physical extent that the recreational use designation that applied to the waters immediately before the application to the waters of the CSO wet weather limited use subcategory is not attained, but for not more than four (4) days after the date the overflow discharge ends.
>
> (2) At all times other than those described in subdivision (1), the water quality criteria associated with the appropriate recreational use designation that applied to the waters immediately before the application to the waters of the CSO wet weather limited use subcategory apply unless there is a change in the use designation as a result of a use attainability analysis.

327 IAC 2-1-11.5(b), which designates the seven Indianapolis waters with the CSO wet weather limited use, includes the following water quality-based requirements for these waters:

> (b) The water quality-based requirements for the CSO wet weather limited use subcategory:
>
> (1) are determined by the November 2017 approved LTCP for the combined sewer system and require that CSO discharges that occur be consistent with the following performance criteria contained in the approved LTCP:
>
> (A) ninety-seven percent (97%) capture of typical year CSO volume and an annual average of two (2) typical year CSOs within the Fall Creek watershed; and
>
> (B) ninety-five percent (95%) capture of typical year CSO volume and an annual average of four (4) typical year CSOs in watersheds other than the Fall Creek watershed; and
>
> (2) remain in effect:
>
> (A) during the time and to the physical extent that the recreational use designation that applied to the waters immediately before the application of the subcategory is not attained; and
>
> (B) for not more than four (4) days after the date the CSO discharge ends.

Consistent with the determination in Section II.A.2 above that requiring additional CSO control beyond the level that will be achieved following implementation of the approved LTCP will cause more environmental damage than to leave in place, and so attaining primary contact

recreation uses and criteria at all times in all places for these seven waters due to the CSO discharges remaining after implementing the approved LTCP is not feasible, Indiana's revised water quality standards at 327 IAC 2-1-11.5(b)(1) establish the highest attainable use as one that only allows CSO discharges that are consistent with the City's approved LTCP. As provided at IC § 13-18-3-2.5(2), the State is adopting a CSO Wet Weather Limited use that applies Indiana's *E. coli* criteria to protect its primary contact recreation use to these waters at all times except for during and for periods of not more than four days after CSO discharges occur that are consistent with the performance criteria contained in the City's approved LTCP. Specifically, for each CSO discharge allowed under the CSO wet weather limited use, Indiana's revised water quality standards at 327 IAC 2-1-11.5(b)(2) limit the duration of this period to only the time during which the CSO discharge prevents attainment of Indiana's recreational criteria, and in no case more than four days after the CSO discharge ends. Additionally, neither Indiana's regulation establishing the CSO wet weather limited use nor its regulation applying that use designation to the seven Indianapolis waters allow the discharge of non-CSO sources of bacteria that would exceed Indiana's statewide *E. coli* criteria or otherwise change the applicable water quality standards regarding non-CSO sources of bacteria.

Because the water quality-based requirements for the CSO wet weather limited use designation for these waters provide for safe primary contact recreation at all times except for during and up to four days following CSO discharges after implementation of the City's approved LTCP, EPA concludes that the designation of the CSO wet weather limited use for the seven waters affected by these revisions is consistent with the requirement at 40 CFR § 131.10(g) for states to adopt the highest attainable use as defined in 40 CFR § 131.3(m).

B. Whether the State has adopted criteria that protect the designated water uses based on sound scientific rationale consistent with § 131.11. (40 CFR § 131.5(a)(2))

40 CFR § 131.11(a) provides that

> States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use.

Indiana's revised water quality standards at IC § 13-18-3-2.5(2) apply the State's EPA-approved *E. coli* criteria for protection of primary contact recreation at all times except for periods during and not more than four days after CSO discharge occurrences that are consistent with the performance criteria contained in the City's approved LTCP: *i.e.*, the revised water quality standards ensure that the *E. coli* criteria that EPA previously approved as being protective of Indiana's primary contact recreation use are in effect for the seven waters affected by the revisions except for times when, for the reasons described in Section II.A.2, it is infeasible to attain those criteria. Therefore, EPA concludes that Indiana's revised water quality standards for the seven waters are consistent with 40 CFR § 131.5(a)(2) and § 131.11(a).

C. Other items that EPA is taking action on.

In addition to the revisions discussed above, Indiana made several non-substantive revisions to the regulation establishing a CSO Wet Weather Limited Use Subcategory at 327 IAC 2-1-3.1 to make non-substantive grammatical and clarifying edits. As discussed in EPA's 2012 document, titled "What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions," EPA considers non-substantive edits to existing water quality standards to constitute new or revised water quality standards that EPA has the authority and duty to approve or disapprove under CWA Section 303(c)(3).

EPA reviewed these non-substantive revisions and concludes that these revisions do not change the meaning or implementation of the State's existing federally-approved water quality standards. Therefore, EPA approves these revisions.

D. Whether the State has followed applicable legal procedures for revising or adopting standards. (40 CFR § 131.5(a)(6))

In a letter prepared for IDEM and submitted to EPA with the adopted water quality standards revisions, David P. Johnson from the Indiana Office of the Attorney General certified that the regulations were duly adopted in accordance with Indiana state law.

In adopting the regulations, the State also provided opportunities for public input consistent with federal requirements at 40 CFR § 131.20(b) and 40 CFR Part 25. On October 16, 2019, Indiana published on its website and in the *Indiana Register* notice of a public hearing to be held on January 8, 2020. The notice was accompanied by a copy of the proposed regulation and links to all supporting documentation. As specified in the notice, the agency held a public hearing in Indianapolis, Indiana on January 8, 2020 and accepted written comments on its proposal through November 15, 2019. IDEM received comments from EPA and the White River Alliance.

As described above, the IDEM publicized the public hearing more than 45 days prior to the date of the hearing, recorded the hearing and met other requirements for public hearings specified at 40 CFR § 25.5. Consequently, EPA concludes that the State satisfied the public participation requirements of 40 CFR § 131.20(b).

IDEM considered and responded to the public comments before adopting the revised regulations. IDEM proposed amendments to the regulations in response to some of the comments. EPA reviewed the comments and IDEM's responses in deciding whether to approve Indiana's new and revised water quality standards.

E. Whether the State standards which do not include the uses specified in section 101(a)(2) of the Act are based on appropriate technical and scientific data and analyses. (40 CFR § 131.5(a)(7))

Indiana's revised designated uses for the seven stream segments do not include the full recreation use specified in Section 101(a)(2) of the CWA. As discussed in Section II.A above, the

designation of the CSO wet weather limited use for these stream segments is based on appropriate technical and scientific data and analysis.

As discussed in Section II.B above, IDEM's revised water quality standards apply criteria that are protective of the CSO wet weather limited use. Consequently, EPA concludes that the State based all use designations which do not include the uses specified in Section 101(a)(2) on appropriate technical and scientific data and analyses.

F. Whether the State submission meets the requirements included in §131.6 of this part and, for Great Lakes States or Great Lakes Tribes (as defined in 40 CFR § 132.2) to conform to section 118 of the Act, the requirements of 40 CFR 132. (40 CFR § 131.5(a)(8))

40 CFR § 131.6 identifies the minimum requirements of a water quality standards submission. As described below, IDEM's submittal meets all the relevant requirements of 40 CFR § 131.6.

1. Minimum requirements for water quality standards submission (40 CFR § 131.6)

a. Use designations consistent with the provisions of section 101(a)(2) and 303(c)(2) of the Act (40 CFR § 131.6(a))

As discussed in Section II.A above, all of the revised designated uses were supported with a UAA consistent with 40 CFR § 131.10(j).

b. Methods used and analyses conducted to support water quality standards revisions (40 CFR § 131.6(b))

On July 13, 2020, the State submitted the following documents in support of these revised water quality standards:

- Indiana Attorney General's Certification for CSO Wet Weather Limited Use Designation LSA #19-510, received July 13, 2020;
- Transmittal Letter Re: Combined Sewer Overflow Wet Weather Limited Use Subcategory Rule Making CWA Authority, Inc. Marion County, Indiana from Bruno L. Pigott, IDEM, to Kurt Thiede, EPA, dated July 13, 2020 and received July 13, 2020;
- Indiana Register Final Rule notice of adopted amendments to 327 IAC 2-1-3.1 and 327 IAC 2-1-11.5, with adopted regulations, LSA Document #19-510, published May 6, 2020;
- Indiana Code § 13-18-3-2.5; and
- CWA Authority, Inc. Use Attainability Analysis – July 2019 (cited in Transmittal Letter).

In addition, during Indiana's rulemaking process, the State transmitted to EPA the following documents from the administrative record:

- Letter from Paul Higginbotham, Deputy Assistant Commissioner, IDEM, to Ms. Ann W. McIver, Director of Environmental Stewardship, Citizens Energy Group Re: Use

Attainability Analysis Indianapolis/CWA Authority LTCP Consent Decree No. 1:06-cv-01456-SEB-TAB Marion County, dated August 23, 2019;
- Letter from Bruno Pigott, Assistant Commissioner, IDEM, to Bart Peterson, Mayor, City of Indianapolis, RE: City of Indianapolis LTCP, Marion County, dated January 4, 2007;
- Summary/Response to Comments from the Second Comment Period, LSA Document #19-510;
- Rule Information Sheet – CWA Authority, Inc.,-Indianapolis Combined Sewer Overflow Wet Weather Limited Use Subcategory of the Recreational Use Designation LSA Document #19-510;
- Proposed Rule LSA Document #19-510;
- Indiana Register notice of public hearing, LSA Document #19-510, posted October 16, 2019; and
- Indiana Register notice of proposed rule, LSA Document #19-510, posted October 16, 2019.

c. Water quality criteria sufficient to protect the designated uses (40 CFR § 131.6(c))

As discussed in Section II.B above, the criteria that apply to protect the CSO wet weather limited use for these seven stream segments are consistent with 40 CFR § 131.11.

d. An antidegradation policy consistent with 40 CFR 131.12 (40 CFR § 131.6(d))

These revisions do not affect Indiana's existing, EPA-approved and effective antidegradation policy.

e. Certification by the State Attorney General or other appropriate legal authority within the State that the water quality standards were duly adopted pursuant to State law (40 CFR § 131.6(e))

Indiana's Office of Attorney General certified the regulations in a letter signed by David P. Johnson, Chief Counsel, Advisory Division.

f. General information which will aid the Agency in determining the adequacy of the scientific basis of the standards which do not include uses specified in section 101(a)(2) of the Act as well as information on general policies applicable to State standards which may affect their application and implementation (40 CFR § 131.6(f))

As discussed in Section II.A above, Indiana submitted documentation based on appropriate technical and scientific data and analyses for all use designations that do not include the uses specified in Section 101(a)(2) of the CWA. The data and analysis used to support the use designations are listed in Section II.F.1.b.

The revised water quality standards do not remove, affect or include any general policies applicable to Indiana's water quality standards that may affect their application and implementation.

2. Requirements of 40 CFR Part 132

The requirements of 40 CFR Part 132 are not applicable with respect to this action because the water bodies addressed by today's action are not in the Great Lakes System.

III. Endangered Species Act Requirements

Consistent with Section 7 of the Endangered Species Act and 50 CFR Part 402, EPA is required to consult with the U.S. Fish and Wildlife Service on any action taken by EPA that may affect federally-listed threatened or endangered species or their critical habitat. Actions are considered to have the potential to affect listed species if listed species are present in the action area.

As discussed in Section II of this document, Indiana's adopted use revisions pertain to a recreational designated use intended to protect human health and is unrelated to the protection of aquatic life or wildlife. Therefore, EPA concludes that it has no discretionary authority to take protection of listed species into consideration in its review of the adopted revisions and thus, consultation with the U.S. Fish and Wildlife Service (FWS) is not required. The rationale for this decision is articulated in the 2009 Memorandum from Benjamin Grumbles, Office of Water Assistant Administrator, which states that:

> For [Endangered Species Act] section 7(a)(2) to apply, EPA must be taking an action in which it has sufficient discretionary involvement or control to protect listed species. State [water quality standards] actions where EPA has concluded that it lacks such discretion include... [a]pproval of water quality criterion to protect human health... [H]uman heath water quality criteria are designed to protect humans, not plants and animals. EPA's discretion to act on a State submission is limited to determining whether the criteria ensure protection of designated uses upon which the criteria are based (i.e., use by humans). Therefore, EPA has no discretion to revise an otherwise approvable human health criterion to benefit listed species.

Consequently, Endangered Species Act consultation requirements do not apply to this action.

IV. Tribal Consultation

On May 4, 2011, EPA issued the "EPA Policy on Consultation and Coordination with Indian Tribes" to address Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments." The EPA Tribal Consultation Policy states that "EPA's policy is to consult on a government-to-government basis with federally recognized Tribes when EPA actions and decisions may affect tribal interests." There are no tribal lands or ceded territory in the areas impacted by the water quality standards revisions at issue here and so approval of these use changes will not affect any tribal interests.