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March 20, 2015

VIA U.S. FIRST CLASS MAIL & E-MAIL

Ms. Susan Murphy
U.S. Environmental Protection Agency – Region I
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912

RE: Supplemental Comments Regarding Draft Permit #MA0100897, City of Taunton

Dear Ms. Murphy:

On Apr 18, 2013, EPA published Draft Permit #MA0100897 (“Draft Permit”) for the City of Taunton, Massachusetts (“City” or “Taunton”). The City has provided several comment supplements as information and issues became identified or to further explain issues previously addressed. In particular, recent correspondence and discussions with EPA have identified EPA positions on several key issues that were not apparent from the original permit Fact Sheet. Therefore, please accept these additional/supplemental comments. We hope that the City and EPA can work out appropriate permit language changes to deal with these issues and avoid a potential permit appeal.

Collection System Studies and Performance Requirement (Section C)

The Draft Permit (pages 7-10) includes many new requirements regarding the operations and maintenance of the collection system. The City has been under state and federal order to address CSO requirements and collection system evaluations. The City has been accomplishing those goals as part of its ongoing maintenance program. There is no basis to impose further requirements at this time and the City requests that these entire provisions be withdrawn in consideration of the following points:

- Any facility planning provisions of the permit are state-level provisions beyond the federal program and must be so identified so federal enforcement is not triggered over these provisions;

- The new permit provisions were not part of adopted NPDES rules, and they never have been presented for public notice and comment in a rulemaking setting prior to the attempted imposition in this permit, in violation of federal APA requirements;
- EPA has provided no data demonstrating that the current City O&M program is insufficient to justify such requirements on a site-specific basis;
- EPA has provided no basis for the individual program requirements that are being imposed as necessary to achieve technology or water quality-based requirements; the development of such technology-based provisions is governed by 40 CFR 125.3 and no such analysis has been presented with this permit;
- The CWA does not authorize EPA to develop a separate set of technology-based provisions for collection systems; the only applicable technology-based provision is secondary treatment;
- The provisions represent an unlawful amendment of the O&M rule which only sets forth general requirements to ensure effluent quality is met – EPA has changed the existing general O&M requirement to mandate that the collection system, regardless of plant performance must be operated and managed in a highly specific fashion and that certain documents must be developed to comply with the O&M provision. These actions are beyond EPA’s authority under the CWA (See, e.g., *Iowa League of Cities v. EPA*, 8th Cir. 2013);
- The NPDES program has never established sewer system operational requirements, nor demonstrated that such provisions are necessary to meet technology or WQ-based limitations. Therefore, inclusion of these requirements is *ultra vires*;
- The new EPA requirements are not case specific provisions but new boilerplate “CMOM” provisions that EPA is attempting to put in all reissued permits. Establishing new NPDES provisions that have reporting and report generating requirements without OMB review violates the federal Paperwork Reduction Act.

In summary, to the degree EPA is claiming that the adopted NPDES rules mandate these requirements, EPA has unlawfully modified the adopted rules. To the degree EPA is claiming that the plain language of the rule allows EPA to impose such requirements, EPA’s reading of the rule is unsupported. Finally, to the degree EPA is attempting to dictate the management of the facility or its collection system, EPA is operating beyond statutory authority. See, *Iowa League of Cities v. EPA* (8th Cir. 2013).

Flow and Load Limits versus CSO Reduction Mandates Are Inconsistent and Require Modification

The City previously commented to EPA that a revision of the limitations, that were based on dry weather conditions, is necessary to address new wet weather conditions the facility will face. The CSO provisions and existing orders require the reduction of CSO discharge volume and ultimate compliance with water quality objectives. Therefore, much higher flows must be brought to the facility for processing. The City’s engineer has indicated that the peak flow will be increased to approximately 35 MGD. Weekly flows in the range of 25 MGD may be anticipated and a higher monthly average flow above 8.4 MGD is certain to occur. The proposed NPDES permit limitations, however, will preclude additional peak flow processing unless certain adjustments are made to the permit, as follows:

1. The flow provision must be modified to exclude CSO-related flows in determining compliance with any flow-related effluent limit or restriction;
2. The technology-based mass limits need to be increased to reflect the higher weekly average flow to be processed by the facility in seeking to eliminate the CSO discharges;
3. The water quality-based concentration and mass limits that were based on dry weather low flow conditions need to be conditioned such that they do not apply when high CSO flows are being processed, since they are not necessary to ensure standards compliance under those conditions given the far greater dilution available in the receiving water under those conditions.

Such action is consistent with recommendations on effluent limit development during wet weather conditions contained in EPA CSO permitting guidance.

New Data from Mount Hope Bay and Taunton Estuary – Issues with New Data and Remote Sampling Reliability

Following EPA's refusal to respond to a Freedom of Information Act request (noted in a prior supplemental comment), EPA has informed the City (March 6, 2015 email from S. Bahkari) that the Brockton permit Fact Sheet contains the additional analyses and data showing that the proposed TN effluent limitations for Taunton, relying upon studies from 2004-2006, are valid despite (1) major load reductions occurring in the system since 2006 and (2) the planned elimination of the Brayton Point discharge.¹ EPA referenced specific remote sampling conducted by other, such as Narragansett Bay Commission and the State of Rhode Island. The more recent data used for this analyses were from remote sensors in Mount Hope Bay (MHB) (TN, DO and chlorophyll-a) and nutrient monitoring in the Taunton Estuary.

This new information provided by EPA does not address the specific technical issues raised in the City's earlier comments (e.g., it is inappropriate to compare conditions in MHB with those in the Taunton River as these are distinct locations; the chlorophyll a target was arbitrarily selected). Moreover, the ongoing claim that such data support using 5 ug/l chl-a level

¹ The relevant text of that email is "First, regarding an "updated" nutrient analysis, an updated explanation by the Region of the basis for total nitrogen effluent limits in this watershed has been included in the recently released fact sheet for the Brockton AWRP draft permit, which can be found at <http://www.epa.gov/region1/npdes/permits/draft/2015/draftma0101010permit.pdf> (see pages 24-49). The Brockton AWRP Fact Sheet includes the weblinks for datasonde and other recent data; these are publicly available information sources. For example the datasonde information collected by the Narragansett Bay Water Quality Network is available on line at http://www.narrabay.org/d_projects/buoy/buoydata.htm (daily average data) and <http://www.dem.ri.gov/bart> (continuous data). The Administrative Record also includes the 2013 Annual Report from the Brayton Point Station Hydrographical and Biological Monitoring Program, which is not accessible online; we will mail you a pdf copy on CD. As always, the Administrative Records for both the Taunton and Brockton NPDES Permits are available for review at our offices."

as necessary to protect aquatic life uses in this system with this information is nowhere demonstrated by this information. An observation that aquatic resources are “unimpacted” for these low levels of algal growth (as referenced in a draft report by a third party) does not provide a basis for asserting that such algal growth level is essential to protect estuarine resources. EPA has accepted far higher chlorophyll-‘a’ levels as protective of estuarine resources (see, e.g., USEPA TMDLs for Long Island Sound and Chesapeake Bay). EPA is required to demonstrate, not presume, that a 5 ug/l algal level is necessary to protect aquatic life resources via some type of “stressor-response” analysis and no such analysis is presented with the new sampling data.

Finally, regarding more recent monitoring in MHB and the Taunton Estuary, EPA previously acknowledged that “*NBC monitoring does not include eutrophication indicators...so their data cannot be used for assessment of the response of the system to the load reduction*” (USEPA 2014 Mansfield Permit Response). Thus, nutrient data for the Taunton cannot be used to assess (1) current algal levels or (2) current DO levels. Likewise, any data for MHB do not provide a basis to conclude how algal levels are reacting in the Taunton Estuary. Finally, EPA’s reliance on remote monitoring for algal levels in MHB is not defensible. In the Great Bay Estuary, such data sonde readings were repeatedly found by EPA to be unreliable. EPA’s analysis provides no demonstration that these data are reliable. Consequently, EPA would have to confirm the reliability of those data with concurrent grab samples before they may be used to estimate current algal growth in that system.

Maximum Extent Possible Performance (Note 12)

The draft permit requires the City to continue to operate TN reduction facilities to achieve the best performance possible outside of the growing season period when water quality requires such operation. This requirement is contrary to existing NPDES rule and Section 301 of the Act. It is beyond EPA’s authority to include in this permit as it is not necessary to achieve either (1) standard’s compliance or (2) technology-based limitations. Water quality-based limits are only required as “necessary” to achieve standards and operation of the TN reduction facilities from November – April is not necessary to attain any applicable standard – narrative or numeric.

No Violation of WQS in Receiving Waters

The permit contains two provisions specifying that it is illegal for the City’s WWTP or CSO discharge to cause a violation of any applicable water quality standard. The imposition of this provision is not authorized by either NPDES permit rules or the Act. EPA is supposed to calculate effluent limits (numeric values) so that the community may understand what pollutants need to be regulated. This vague provision provides no such notice. Moreover, the provision negates schedule of compliance authority adopted by MassDEP by making all water quality standards compliance immediate. Where new information indicates that a standard violation is occurring, the proper procedure is to reopen the permit, set a limit and provide a schedule of compliance.

No Pass Through of Pollutants (Part I - A1.3)

This provision applies to indirect dischargers not to POTWs. It should be deleted from the permit.

Peak Flow Blending Design is Illegal

EPA recently announced, through New Jersey DEP, that EPA will not allow facilities processing CSO-related flows to be designed to “blend”.² As explained by NJDEP in its response to comments, this conclusion was directed, not only by EPA Region II, but also by EPA Headquarters:

In a letter to the Department dated October 9, 2014, Kate Anderson, Chief of EPA’s Region 2 Clean Water Regulatory Branch, confirmed that blending of primary and secondary treated flows to meet existing effluent limitations may be allowed through a CSO permit if the proposal satisfies the factors described in Part II.C.7 of the CSO Control Policy, 59 Fed. Reg. at 18693-94, and those at 40 C.F.R. § 122.41(m) [i.e., “no feasible alternatives” analysis].

EPA has determined that the Iowa League of Cities decision is only applicable in the 8th Circuit. To date, for the remainder of the nation outside the 8th Circuit, intentionally diverting flow around treatment processes will be considered a prohibited bypass unless the conditions of 40 C.F.R. § 122.41(m) are satisfied. This policy was reiterated in a letter dated October 9, 2014, from Kate Anderson, Chief, Clean Water Regulatory Branch, EPA Region 2, responding to a similar request from PVSC.

While EPA is saying that blending designs may be “allowed”, this endorsement may only occur as an “approved bypass.” This means that the blending design would still be treated as an illegal bypass and could only be temporarily approved via a burdensome demonstration that there are “no feasible alternatives” (*i.e.*, massive holding tanks, equalization basins, supersized treatment facilities, etc.). Even if approved once, the permittee would then have to re-demonstrate that there are “no feasible alternatives” every permit cycle and expend more resources to eventually eliminate the “excessive” peak flows. That is precisely the issue addressed, and vacated, by the Eighth Circuit. *See, ILOC*, 311 F.3d at 875-876.

The ability to blend peak flows as part of designing any facility upgrade is essential to the City of Taunton. It is, in fact, impossible to design a properly functioning nitrogen removal facility if such peak flows must be processed biologically. This would, consequently, either force the City to construct, at some location, massive holding basins or simply discharge far greater CSO volumes to the environment. EPA’s interpretation of the federal bypass rule to proscribe blending is arbitrary and capricious, for the reasons specified by the 8th Circuit in the

² March 12, 2015 Comment Response Document *available at* <http://www.state.nj.us/dep/dwq/pdf/cso-combined-r-to-c-03-09-15.pdf> (detailing over 300 pages of public comments and responses) ((See attached Excerpts and Kate Anderson letter.))

Iowa League of Cities v. EPA decision. Taunton therefore objects to EPA's illegal bypass and secondary treatment rule interpretations that are being implemented through this permit.

Schedule of Compliance

The City had previously requested that an extended schedule of compliance be placed in the final permit. Based on recent discussions, the cost of compliance is considered a controlling factor in deciding the allowable length of the schedule. Consequently, the City has completed an evaluation that makes reasonable assumptions regarding nutrient reduction, CSO corrective action measures and anticipated MS4 compliance costs the City is expected to incur. (See attachments). It is apparent that a 10 year schedule to attain a 3 mg/l limit is far too costly and beyond the City's means to undertake. (See 10 year schedule cost assessment). Using EPA's methods, the City would be at or above the 2% median income for nearly half of the population. Based on these analyses, we request that a 18 year schedule be provided to achieve 3 mg/l (which allows for debt retirement) and a 6 year schedule be provided to achieve an interim improvement of 5 mg/l TN on a seasonal average. This schedule will provide sufficient time for the City to resolve key antidegradation and CSO control issues needed to approve an updated facility design flow and to receive confirmation regarding the proper peak (instantaneous) flow associated with meeting the City's CSO compliance requirements.

Thank you for your consideration of these comments. We look forward to the Region's response.

Sincerely,



John C. Hall

Attachments

cc: Mayor Thomas C. Hoye, Jr.
Joseph Federico, BETA
Dan Arsenault, EPA

95. COMMENT: Part IV.G.4.e.vii authorizes NHSA to evaluate a CSO bypass (per the National CSO Policy) as one of the LTCP alternatives. Given that the Department indicates that this option is prohibited by state law, it is not apparent why this option is allowed to be assessed. The Department should determine whether this earlier adopted state rule was intended to restrict options otherwise authorized or mandated by the federal National CSO Policy to protect public health or otherwise allowed by the NJPDES rules.

The River Road Draft Permit and the Adams Street Draft Permit indicate that a change in regulation would be required to allow NHSA to bypass. We believe the Department is mistaken regarding bypass in the CSO context, as the Department incorporated the federal program requirements into its rules. Furthermore, the Department fails to address that pursuant to its regulations, NHSA can utilize non-biological approaches (i.e., maximize flows to the primary units, divert excess peak flows around the biological unit, recombine, disinfect, and still meet permit limits). N.J.A.C. 7:14A-13.12(a)3, expressly allows POTWs to modify their permit limitations and utilize excess primary capacity if they are maximizing flow to a plant as a means to reduce CSOs, whether through non-biological peak flow processing or, if permit limits cannot be met, through a bypass:

- (a) An applicant or permittee may request effluent limitations less stringent than those required by N.J.A.C. 7:14A-13.3, 13.4 or 13.6, which are applicable only during periods of excessive effluent flow due to precipitation events, provided one or more of the following criteria is met:
 3. The facility receives flow from combined sewers. In such cases the permittee *shall be required to maximize the flow to the treatment facility* and minimize the flow through the combined sewer overflow. The permittee shall evaluate and implement options for eliminating the extraneous flow. *The options to be explored* shall include, but shall not be limited to, reducing or eliminating one or more overflows, *providing a reduced level of treatment for a portion of the flow*, and, in some cases, separation of the sanitary and storm sewers. The permit shall include a schedule addressing reduction or elimination of the excess flow as appropriate. Any discharge from combined sewer overflows shall be consistent with the USEPA final policy for combined sewer overflows. See 59 Fed. Reg. 18688 (April 19, 1994), which is incorporated at N.J.A.C. 7:14A-11 Appendix C.

Consistent with such an approach, the Draft NJPDES permits recognize that the National CSO policy would require maximizing the flows to be treated at the NHSA STP, including the use of a CSO bypass to accomplish that goal. However, the prohibition in N.J.A.C. 7:14A-23.13(m) applies to “untreated or partially treated wastewater to be discharged.” In NHSA’s situation, the blended wastewater would meet the NJPDES permit effluent limitations. As such, the blended effluent would be neither “untreated” nor “partially treated wastewater” as intended by this rule. The plant is designed to treat peak flows and meet permit limits through non-biological peak flow processing, which is otherwise authorized in the NJPDES rules. [25]

96. COMMENT: Section G.4.e.vii authorizes JMEUC to evaluate CSO bypass (per the National CSO Policy) as one of the LTCP alternatives. The Fact Sheet, however, indicates that such option is currently prohibited by state law, so it is not apparent why this option is allowed to be assessed. The Department should determine whether this earlier adopted state rule was intended to restrict options otherwise authorized or mandated by the federal National CSO Policy to protect public health. [9]

97. COMMENT: Regarding the River Road facility, several discharge options presently exist to allow for increased CSO flow processing and avoidance of public exposure to untreated wastewater. To ensure NMC compliance and LTCP implementation in the timeliest fashion, the ability to employ a CSO bypass or simply meet applicable effluent limits for this combined discharge to the Hudson River should be clarified. [25]

98. COMMENT: The City of Elizabeth maximizes the flow to JMEUC. What takes place at JMEUC has a significant impact upon the City in terms of the conveyance capabilities to the Trenton Avenue pump station as we are regulated in how much we can discharge. Therefore, we have a vested interest in blending because it will have an impact on the City of Elizabeth. [8]

99. COMMENT: The Department should consider adding additional detail from the National CSO Policy to help further clarify Part IV.G.4. As stated in the National CSO Policy, “[f]or approval of a CSO related bypass, the long-term CSO control plan, at a minimum, should provide justification for a cut-off point at which the flow will be diverted from the secondary treatment portion of the treatment plant, and provide a benefit-cost analysis demonstrating that conveyance of wet weather flow to the POTW for primary treatment is more beneficial than other CSO abatement alternatives such as storage and pump back for secondary treatment, sewer separation, or satellite treatment” (18693 FR /Vol. 59, No. 75). In the Draft permit Fact Sheet, the Department states that the “National Policy encourages permittees to consider the use of a bypass of secondary treatment in the evaluation of alternatives.” It is more accurate to say “allows” rather than “encourages.” [5] [11]

100.COMMENT: The Fact Sheet also notes that NJ regulations prohibit bypass and states that the Department “recognizes that the rule would need to be modified in order to allow bypasses as part of an approved LTCP.” Under 40 CFR 122.41(m)(4), bypass is prohibited, but the rule provides for enforcement discretion where: the permittee shows that the bypass was unavoidable to prevent loss of life, personal injury or severe property damages; the permittee shows that there was no feasible alternative to the bypass; and the permittee submitted the required notice.

The Fact Sheet states under the *Evaluation of Alternatives* that in order for the Department “to consider a by-pass as a feasible alternative ...” This is inaccurate. The Fact Sheet should state, “in order for bypassing to be considered it must be demonstrated that there are no feasible alternatives to bypass.”

The “no feasible alternative” analysis should be included in the LTCP. The National CSO Policy describes what this analysis should entail in more detail. [5] [11]

RESPONSE 95-100: In a letter to the Department dated October 9, 2014, Kate Anderson, Chief of EPA's Region 2 Clean Water Regulatory Branch, confirmed that blending of primary and secondary treated flows to meet existing effluent limitations may be allowed through a CSO permit if the proposal satisfies the factors described in Part II.C.7 of the CSO Control Policy, 59 Fed. Reg. at 18693-94, and those at 40 C.F.R. § 122.41(m). As stated:

“NJDEP may provide a reopener clause in the reissued permit that would allow the permit to be reopened to add language approving a CSO related bypass [if the permittee] submits information demonstrating that the requirements in 40 CFR § 122.41(m)(4)(i) have been met. If the permit is reopened and modified to include a preapproved bypass, the approval would need to set conditions for when and how an approved bypass would occur.”

If the permittees' no feasible alternatives analysis shows that blending would be appropriate during the term of this permit, and after examination of any adverse effects, the Department will consider a major permit modification to allow a deviation under N.J.A.C. 7:14A-23.2(b) from the prohibition against bypassing any portion of the treatment works at N.J.A.C. 7:14A-23.13(m) for CSO STPs. The Department maintains that this would constitute new information that meets the criteria of N.J.A.C. 7:14A-16.4(b)2, thereby constituting cause for major modification or revocation and renewal of a permit.

Under Part IV.G.4.e.vii of the CSO permit, as part of their LTCP, permittees are required to evaluate alternative wet weather treatment protocols for reducing CSO events by maximizing the use of primary treatment capacity at the STP to meet the National CSO Policy's goal of making the greatest use of using existing plant infrastructure. Specifically, permittees shall also evaluate the feasibility of using the plant's excess primary treatment capacity with disinfection and dechlorination to increase the amount of primary treatment for flows that would otherwise be discharged through CSOs, while still meeting the STP's effluent limitations.

Although the Fact Sheets of the Draft permits state that the rule at N.J.A.C. 7:14A-23.13(m) would need to be modified to allow bypasses as part of an approved LTCP, the Department has reevaluated these rules and have found that an exemption is allowable under N.J.A.C. 7:14A-23.2(b). Such alternative wet weather treatment protocols may only be considered for STPs that receive combined sewer flows to meet the STP's effluent limitations, and may only be granted as a modification to the plant's CSO NJPDES permit. In such cases, the STP permittees may apply to the Department for a permit modification to include specific conditions when blending may be allowed under N.J.A.C. 7:14A-16.4 and -23.2(b).

N.J.A.C. 7:14A-13.12 applies to requests to modify wet weather effluent limitations and is not addressed by the CSO NJPDES permits and requires consideration of additional criteria described in the rule.

No changes have been made to the Final permit(s) as a result of these comments.

101. COMMENT: Clarification is needed on the potentially authorized discharge locations for JMEUC. Several discharge options presently exist to allow for increased CSO flow processing and avoidance of public exposure to untreated wastewater, yet only one of these

points is authorized by the Draft permit. To ensure NMC compliance and LTCP implementation in the timeliest fashion, the ability to employ a CSO bypass to the Elizabeth River should be allowed. [9]

RESPONSE 101: While it is premature to evaluate a CSO control alternative independent of the complete LTCP, it appears that the permittee is requesting that the Department consider a CSO bypass to the Elizabeth River. However, it is unclear as to whether or not this suggested bypass would be routed to a permitted outfall or to an alternative discharge location not currently authorized in the NJPDES CSO permit.

With respect to the issue of blending, please note that blending is intended to be utilized at the existing STP outfall since compliance with all existing NJPDES permit parameters is required. Any alternate discharge location would require authorization through a separate NJPDES permit action, including the development of the appropriate limits as well as a WQMP amendment, and would be subject to other rules and regulations.

No changes have been made to the Final permit(s) as a result of this comment.

102. COMMENT: The preamble statements made by EPA and cited to by the court in *Iowa League of Cities v. EPA*, 711 F.3d 844 (8th Cir. 2103) state that the federal bypass rule's purpose is to "ensure that users properly operate and maintain their treatment facilities . . . [pursuant to applicable] underlying technology-based standards," "by requiring incoming flows to move through the facility as it was designed to be operated" and "[l]ike the more general secondary treatment regulations, the bypass rule does not require the use of any particular treatment method or technology." With the permit effluent limitations establishing the threshold for the level of treatment required, as long as the blended effluent meets the permit limits it would neither fall under the N.J.A.C. 7:14A-23.13(m) prohibition nor the bypass provision. [25]

103. COMMENT: How does the emergency discharge provision of the NJPDES rules and the decision in *Iowa League of Cities v. EPA*, 711 F.3d 844 (8th Cir. 2013) apply at these POTWs for peak flow management, outside the federal/CSO bypass procedures? [9] [25]

104. COMMENT: If NHSA were to combine the existing 002 and 001 discharges to ensure full disinfection and, if necessary, dechlorination, and then discharge the combined flows out the existing outfall, NHSA would be in full compliance with the existing NJPDES limitations. Under *Iowa League of Cities v. EPA* and based upon Department precedent, this does not constitute a bypass under either state or federal law. [25]

105. COMMENT: Further insight is needed as to how the emergency discharge provisions of the NJPDES rules, National CSO Policy and Iowa League case affecting federal bypass provisions applicable to STPs interact with and identify allowable peak flow management approaches. It would seem that there is greater justification to process peak flows given the Iowa League decision. Clarification would save considerable resources in addressing LTCP objectives. [48]

RESPONSE 102-105: EPA’s bypassing rule at 40 C.F.R. § 122.41(m) was upheld in an earlier federal appellate decision in *NRDC v. EPA*, 822 F.2d 104 (D.C. Cir. 1987). EPA maintains that the decision in *Iowa League of Cities v. EPA*, 711 F.3d 844 (8th Cir. 2013) is at odds with the D.C. Circuit’s longstanding ruling on EPA’s bypassing rule and EPA has determined that the *Iowa League of Cities* decision is only applicable in the 8th Circuit. To date, for the remainder of the nation outside the 8th Circuit, intentionally diverting flow around treatment processes will be considered a prohibited bypass unless the conditions of 40 C.F.R. § 122.41(m) are satisfied. This policy was reiterated in a letter dated October 9, 2014, from Kate Anderson, Chief, Clean Water Regulatory Branch, EPA Region 2, responding to a similar request from PVSC. Ms. Anderson’s letter is part of the administrative record.

Moreover, Section 510 of the CWA provides that state rules will supersede less stringent federal regulations. 33 U.S.C.A. § 1370. The Department’s NJPDES rules, which are promulgated under New Jersey’s WPCA, N.J.S.A. 58:10A-1 et seq., may restrict or prohibit bypassing in circumstances that might otherwise be permissible under federal law. Permittees are required to comply with the more stringent of the federal regulations and the Department’s regulations before a bypass may be permitted. Please refer to **RESPONSE 95-100** in Section D of the Response to Comments document.

No changes have been made to the Final permit(s) as a result of these comments.

106. COMMENT: Blending has the potential to provide immediate environmental and public health benefits to the local community, in accordance with the federal National CSO Policy. As necessary, the Department could grant a waiver to N.J.A.C. 7:14A 23.13(m) that addresses facility design to accomplish this goal. We request the Department’s input and evaluation of these issues prior to the finalizing of this Draft permit. [25]

RESPONSE 106: Although the Fact Sheets of the Draft permits state that the rule at N.J.A.C. 7:14A-23.13(m) would need to be modified to allow bypasses as part of an approved LTCP, the Department has reevaluated these rules and has found that an exemption is allowable under N.J.A.C. 7:14A-23.2(b). Such alternative wet weather treatment protocols may only be considered for STPs that receive combined sewer flows to meet the STP’s effluent limitations, and may only be granted as a modification to the CSO NJPDES CSO permit. In such cases, the STP permittees may apply to the Department for a permit modification to include specific conditions when blending may be allowed under N.J.A.C. 7:14A-16.4 and -23.2(b).

Waivers are considered only on a case-by-case basis. The Department will not consider or pre-judge whether a deviation or “waiver” is appropriate without a specific application that provides the information required by N.J.A.C. 7:14A-23.2 and/or N.J.A.C. 7:1B-2. Please also refer to **RESPONSE 95-100** concerning blending of Section D of this Response to Comments document.

No changes have been made to the Final permit(s) as a result of this comment.

107. COMMENT: The seventh bullet in the PVSC NJPDES permit discusses CSO related bypasses of the secondary treatment portion of the STP as a CSO control alternative that can be

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Mail Code 401-02B
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P.O. Box 420
Trenton, NJ 08625-0420

Dear Ms. Patterson:

The purpose of this letter is to provide you with follow-up information concerning three issues that we discussed at the July 15, 2014 NJDEP/EPA Workshop on Combined Sewer Overflows (CSOs): 1) the appropriate criteria for approving a percent removal waiver at wastewater treatment plants that receive combined sewer flows; 2) control of inflow/infiltration (I/I) in the collection system; and 3) the information needed to approve bypasses through NJPDES permits. This letter reflects both EPA Region 2 and EPA Office of Water recommendations.

Percent Removal

Passaic Valley Sewerage Commission (PVSC) has requested a waiver of the 30-day average percent removal requirements for total suspended solids (TSS) and biochemical oxygen demand (BOD) in the federal secondary treatment regulations. PVSC stated it cannot consistently meet the 85% removal requirement because of less concentrated influent that it receives due to deindustrialization and storm water entering the combined sewer collection systems.

Based upon the latest data provided by PVSC, EPA supports waiving the 85% removal requirement during wet weather conditions under 40 CFR 133.103(a). As required by 40 C.F.R. § 133.103(a), the NJDEP must decide, on a case-by-case basis, whether PVSC can attain an alternative percentage removal level during wet weather conditions and specify that level in the permit. EPA anticipates that waiving the 85% removal requirement during wet weather will result in increased combined sewer flows to the treatment plant, thereby reducing the number and volume of CSOs in the collection system. Based on the data we have seen, EPA does not support substituting a lower removal requirement during dry weather conditions because the data submitted by PVSC do not demonstrate that the facility meets all three requirements of 40 C.F.R. § 133.103(e).

EPA suggests that one way that NJDEP can distinguish between wet weather and dry weather conditions is to review the flow and precipitation information for the PVSC wastewater treatment plant to determine appropriate flow conditions that represent wet weather. NJDEP should include this information along with the flow threshold appropriate for waiving the percent removal standard during wet weather in the permit and fact sheet.

Control of I/I

EPA supports NJDEP's inclusion in the draft PVSC permit of requirements to control I/I. EPA recommends NJDEP consider requiring more detailed flow monitoring of individual communities to identify and address areas with excessive infiltration or inflow. As PVSC receives flow from both separate and combined sanitary sewer systems, the NJDEP should consider revising, as necessary, the draft permit conditions to monitor for and reduce excessive infiltration from combined sewer systems and excessive inflow and infiltration from separate sanitary sewer systems. We have attached model NPDES permit language for Municipal Sanitary Sewer Systems, which includes requirements for developing Capacity, Management, Operation and Maintenance (CMOM) Programs that NJDEP may find useful in developing such conditions.

Bypass


The PVSC permit, as are all NPDES permits, is required to include, either expressly or by express reference and incorporation, the regulatory requirements for a bypass in 40 C.F.R. § 122.41(m). Subsection 40 C.F.R. § 122.41(m)(4)(ii) of the bypass provision provides that the NPDES authority may approve an anticipated bypass, after considering its adverse effects, if the NPDES authority determines it will meet the three conditions listed in § 122.41(m)(4)(i). EPA is unaware of information demonstrating that PVSC has met the conditions listed in § 122.41(m)(4)(i). In the absence of such a demonstration, NJDEP cannot approve bypasses.

NJDEP may provide a reopener clause in the reissued permit that would allow the permit to be reopened to add language approving a CSO-related bypass if PVSC submits information demonstrating that the requirements in 40 C.F.R. § 122.41(m)(4)(i) have been met. If the permit is reopened and modified to include a pre-approved bypass, the approval would need to set conditions for when and how an approved bypass would occur.

In order to include a pre-approved bypass in any subsequent permits, the requirements in 40 C.F.R. 122.41(m)(4)(i) would need to be satisfied for each permit. This may be done through the analysis of alternatives in the LTCP. In accordance with the CSO Policy, the study of feasible alternatives in the control plan may provide sufficient support for the permit record and for approval of a CSO-related bypass in the permit itself, and to define the specific parameters for any approved bypass. The CSO Policy contains additional information about this topic at 59 Fed. Reg. 18688, 18693-18694 (April 19, 1994)

The EPA looks forward to continuing to work with the NJDEP to implement all of the requirements of the Clean Water Act and the CSO Control Policy. Please feel free to contact me or Mr. Stan Stephansen of my staff at (212) 637-3776 with any questions, concerns or additional assistance that we can provide.

Sincerely yours,



Kate Anderson, Chief

Clean Water Regulatory Branch

Model NPDES Permit Language for Sanitary Sewer Overflows

Reporting, Record keeping, and Public Notification for Unauthorized Sewage Overflows.

(1) ***Immediate Reporting***

- (A) The permittee shall report to the Director any overflow that may endanger health or the environment from a sanitary sewer or any unauthorized overflow from a combined sewer over which the permittee has ownership or operational control. Information shall be provided orally within twenty-four hours from the time the permittee becomes aware of the circumstances. At a minimum, the permittee shall identify:
- (i) The location of the overflow;
 - (ii) The receiving water (if there is one);
 - (iii) The duration of the overflow; and
 - (iv) The estimated volume of the overflow.
- (B) An *overflow* is any spill, release or diversion of municipal sewage, including:
- (i) An overflow that results in a discharge to waters of United States (other than a combined sewer overflow that is authorized by a permit); and
 - (ii) An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the United States.

(2) ***Written Reports***

- (A) The permittee shall also provide a written report to the Director for any overflow identified under paragraph (1) within 5 days of the time the permittee becomes aware of the circumstances. The written report shall contain a description of:
- (i) The location of the overflow;
 - (ii) The receiving water (if there is one);
 - (iii) An estimate of the volume of the overflow;

- (iv) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);
 - (v) The estimated date and time when the overflow began and stopped or will be stopped;
 - (vi) The cause or suspected cause of the overflow;
 - (vii) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
 - (viii) An estimate of the number of persons who are known to come into contact with wastewater from the overflow; and
 - (ix) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.
- (B) The Director may waive the written report on a case-by-case basis for reports under paragraph (A) of this section if the oral report required by paragraph (1) above has been received within 24 hours.
- (C) DMRs - The permittee shall report any overflow that is not reported under paragraphs (1) or (2)(A) above in the discharge monitoring report required by this permit. The discharge monitoring report shall contain the information listed in paragraph (2)(A) above.
- (3) **Record Keeping** - The permittee must maintain a record of the following information for a period of at least 3 years from the date of the report:
- (A) any report submitted under paragraph (2); and
 - (B) any report, including work orders that are associated with investigation of system problems related to an overflow, that describes the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow, or that documents system performance.

[NOTE: The NPDES authority should establish a process for requiring the permittee or the NPDES authority to notify specified third parties of overflows that may endanger health. Where the permittee is required make such notification, paragraph (4) may be used].

(4) ***Third Party Notice***

- (A) In consultation with relevant state, regional and/or local authorities, the permittee must develop a plan that describes how the permittee will notify, under various overflow (and unanticipated bypass and upset) scenarios, the public, as well as other entities, of overflows that may endanger health. The plan should identify all overflows that would be reported, and the specific information that would be reported to each entity receiving notification. The plan should include a description of lines of communication and the identities of responsible officials.
- (B) The permittee must immediately notify the public, health agencies and other affected entities (e.g. public water systems) of overflows from a sanitary sewer and any unauthorized overflow from a combined sewer that the permittee owns or over which it has operational control that meet the criteria developed in accordance with paragraph (A); or any unanticipated bypass or upset that exceeds any effluent limitation in the permit, in accordance with the notification procedures developed in paragraph (A) of this section.

Municipal Sanitary Sewer Systems - Capacity, Management, Operation and Maintenance (CMOM) Programs.

(1) **General Standards.**

- (A) Discharges from unauthorized locations are prohibited.
 - (B) The permittee must properly manage, operate and maintain, at all times, all parts of the collection system that the permittee owns or over which it has operational control;
 - (C) The permittee must take all feasible steps to stop, and mitigate the impact of, sanitary sewer overflows in portions of the collection system the permittee owns or over which it has operational control.
- (2) **Components of CMOM Program.** The permittee must develop and implement a capacity, management, operation and maintenance (CMOM) program that addresses subparagraphs (D), (E), (F), (G) and, if applicable, (H), to comply with paragraph (1) of this section. The permittee must develop a written summary of its CMOM program that addresses subparagraphs (A) through (G), and, if necessary, subparagraph (H). The written summary, and the program audit under paragraph (2)(I) of this section, must be

available to the public upon request. The written summary addressing subparagraphs (A) through (G), and, if necessary, subparagraph (H), and the program audit under paragraph (2)(I) of this section, must be submitted to the NPDES authority with the application for the next permit renewal. The program does not need to address any element of this section that the permittee believes is not appropriate or applicable for its CMOM program, provided that the permittee's written summary explains why such element is not appropriate or applicable. Except as provided above, the program must include the following components:

- (A) Goals. The written summary must specifically identify the major goals of its CMOM program, consistent with the general standards identified above.
- (B) Organization. The written summary must identify administrative and maintenance personnel positions responsible for implementing measures in its CMOM program, including lines of authority by organization chart or similar document.
- (C) Legal Authority. The written summary must describe the permittee's legal authority, e.g., sewer use ordinances, service agreements or other legally binding documents, to:
 - (i) Control infiltration and connections from inflow sources;
 - (ii) Require that sewers and connections be properly designed and constructed;
 - (iii) Ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals);
 - (iv) Control flows from municipal satellite collection systems;
 - (v) Access all necessary locations and undertake all necessary actions for appropriate emergency response;
 - (vi) Implement the general and specific prohibitions of the national pretreatment program under 40 CFR 403.5; and
 - (vii) Control grease.
- (D) Overflow Emergency Response Plan. The permittee's CMOM program must include an overflow emergency response plan to protect public health from overflows and unanticipated bypasses or upsets that exceed any effluent limitation in the permit. At a minimum the emergency response plan must include mechanisms to:
 - (i) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and any unanticipated bypass or upset that exceeds any effluent limitation in the permit;
 - (ii) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceeds any effluent

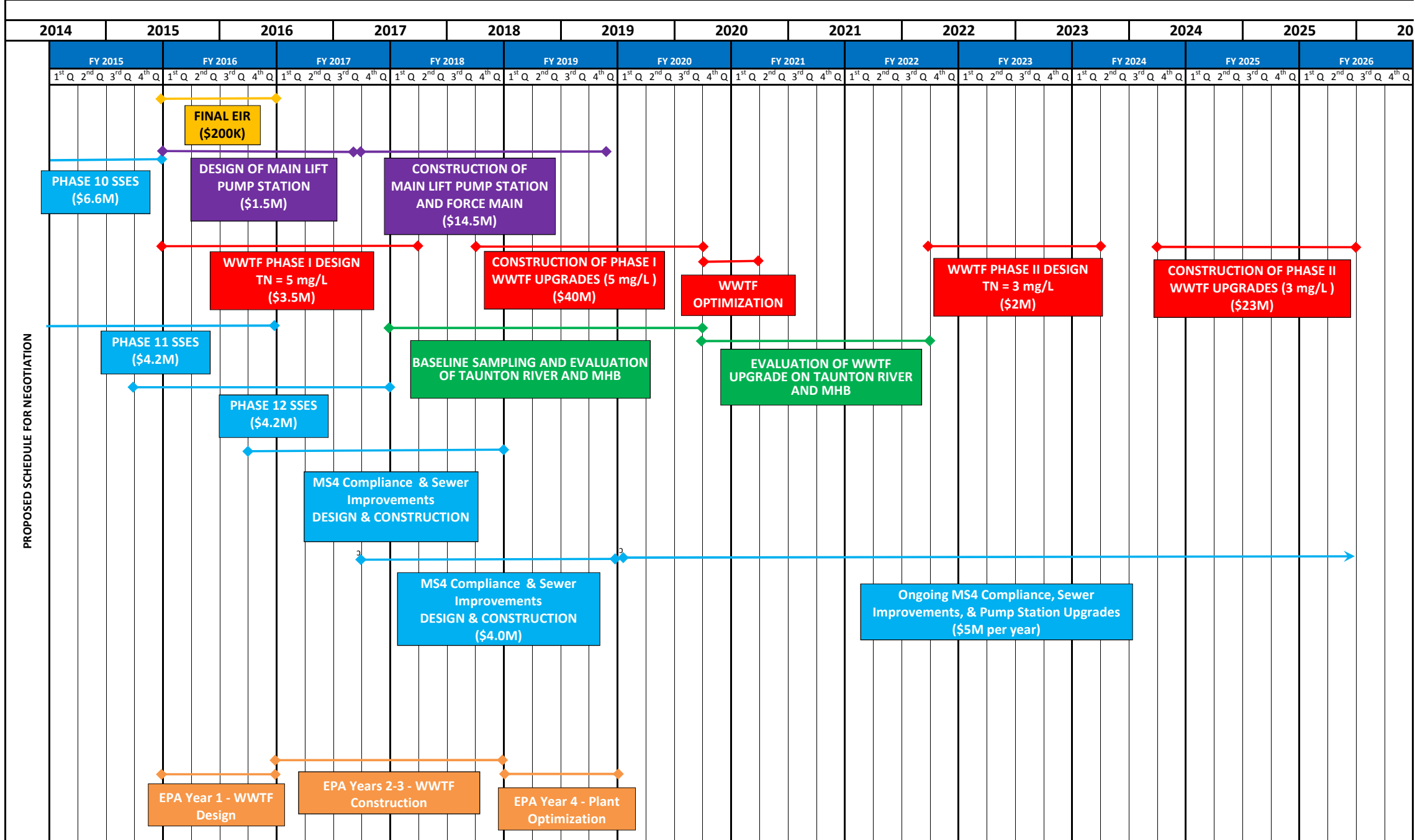
limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

- (iii) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained.
- (E) Measures and Activities. The permittee's CMOM program must address the following elements that are appropriate and applicable to the permittee's system, and the written summary must identify the person or position in its organization responsible for each element:
- (i) Provide adequate maintenance facilities and equipment;
 - (ii) Maintain a map of the collection system;
 - (iii) Manage and use timely, relevant information to establish and prioritize appropriate CMOM activities;
 - (iv) Conduct routine preventive operation and maintenance activities;
 - (v) Assess the current dry and wet weather capacities of the collection system and treatment facilities which the permittee owns or over which it has operational control;
 - (vi) Identify and prioritize structural deficiencies, and identify and implement short-term and long-term rehabilitation actions to address each deficiency;
 - (vii) Provide appropriate training on a regular basis; and
 - (viii) Maintain equipment and replacement parts inventories including identification of critical replacement parts.
- (F) Design and Performance Provisions. The permittee must establish:
- (i) Requirements and standards for the installation of new sewers, pumps and other appurtenances; and rehabilitation and repair projects; and
 - (ii) Procedures and specifications for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.
- (G) Monitoring, Measurement, and Program Modifications. The permittee must:
- (i) Monitor the implementation and, where appropriate, measure the effectiveness of each element of its CMOM program;
 - (ii) Update program elements as appropriate based on monitoring or performance evaluations; and
 - (iii) Modify the summary of its CMOM program as appropriate to keep it updated and accurate.
- (H) System Evaluation and Capacity Assurance Plan. If peak flow conditions are contributing to an unauthorized discharge from the permittee's separate sanitary collection system or to noncompliance at a treatment plant, then the permittee must prepare and implement a plan for system evaluation and capacity assurance. At a minimum the plan must include:

- (i) Evaluation. Steps to evaluate those portions of the collection system which the permittee owns or over which it has operational control which are experiencing or contributing to an unauthorized discharge from its separate sanitary collection system caused by hydraulic deficiency or to noncompliance at a treatment plant. The evaluation must provide estimates of peak flows (including unauthorized flows discharged from the separate sanitary collection system) associated with conditions similar to those causing overflow events, provide estimates of the capacity of key system components, identify hydraulic deficiencies (including components of the system with limiting capacity) and identify the major sources that contribute to the peak flows associated with overflow events.
 - (ii) Capacity Enhancement Measures. Establish short- and long-term actions to address each hydraulic deficiency including prioritization, alternatives analysis, and a schedule.
 - (iii) Plan Updates. The plan must be updated to describe any significant change in proposed actions and/or implementation schedule. The plan must also be updated to reflect available information on the performance of measures that have been implemented.
- (I) CMOM Program Audits. Beginning no later than the second year of the permit term, the permittee must conduct a comprehensive audit, appropriate to the size of the system and the number of overflows evaluating its CMOM program and compliance with this subsection, including its deficiencies and steps to respond to them.
- (J) Communications. The permittee should communicate on a regular basis with interested parties on the implementation and performance of its CMOM program. The communication system should allow interested parties to provide input to the permittee as the CMOM program is developed and implemented.
- (3) The permittee must fully implement all components of the CMOM program as described in (2).

[Note: EPA does not recommend inclusion of model permit condition (2)(H) in the permit for municipalities that are already under an enforceable obligation and schedule to prepare and implement a plan for system evaluation and capacity assurance. In such permits, the model language in (2)(I) and (2)(J) would be renumbered (2)(H) and (2)(I), respectively.]

EPA NPDES Draft Permit
OVERALL PROJECT TIMELINE
Updated 03/12/15



	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
EXIST. DEBT BURDEN:	\$ 4,146,867	\$ 4,121,628	\$ 4,089,183	\$ 4,064,209	\$ 4,038,459	\$ 3,690,822	\$ 3,108,644	\$ 3,089,515	\$ 3,002,147	\$ 2,812,464	\$ 2,809,307
NEW DEBT BURDEN:	\$ 1,180,268	\$ 1,828,967	\$ 3,037,298	\$ 5,789,759	\$ 6,114,288	\$ 6,438,788	\$ 6,763,349	\$ 7,210,195	\$ 7,496,290	\$ 9,188,998	\$ 9,452,033
IMA REVENUE:	\$ -	\$ (16,913)	\$ (271,198)	\$ (271,198)	\$ (809,380)	\$ (809,380)	\$ (809,380)	\$ (809,380)	\$ (809,380)	\$ (809,380)	\$ (809,380)
TAUNTON DEBT BURDEN:	\$ 5,327,135	\$ 5,933,683	\$ 6,855,283	\$ 9,582,770	\$ 9,343,367	\$ 9,320,230	\$ 9,062,613	\$ 9,490,331	\$ 9,689,058	\$ 11,192,082	\$ 11,451,961
SFH Avg Bill (20-yr loan):	\$ 517	\$ 583	\$ 685	\$ 932	\$ 938	\$ 943	\$ 943	\$ 978	\$ 1,015	\$ 1,045	\$ 1,094
% of SFH above 2% MHI	5.3%	6.6%	10.0%	30.2%	30.2%	30.2%	30.2%	30.2%	47.5%	47.5%	47.5%

MHI = \$48,230

Uses and Variances - Evaluating Substantial and Widespread Economic and Social Impacts: Public Sector Entities

Purpose

The purpose of this spreadsheet is to help states, tribes, and stakeholders implement the recommendations in EPA's Interim Economic Guidance for Water Quality Standards, Workbook (1995).

Federal regulations allow the lowering or removal of certain designated uses if the pollution controls needed to attain those uses will result in substantial and widespread economic and social impacts (CFR 40 131.10(g)(6)). The EPA developed guidance (EPA-823-B-95-002 Interim Economic Guidance for Water Quality Standards, Workbook (1995)) to help states, tribes, and stakeholders evaluate the potential for substantial and widespread economic and social impacts (hereafter termed "The Guidance"). The Guidance recommends methods for calculating socioeconomic and financial indicators and ways to evaluate and interpret them. Worksheets are provided in the appendix to facilitate the calculation, evaluation, and interpretation of these recommended indicators.

This spreadsheet supplements The Guidance by guiding the user through the necessary calculation steps to successfully implement The Guidance recommendations. The spreadsheet provides instructions on what information needs to be obtained and how to obtain it, organizes and stores the information in a sensible and relevant format, performs the required calculations on numeric information wherever feasible, and evaluates the results. The spreadsheet also clearly displays the information, methodology, and analytical results in a way that can be used to compile needed documentation when applying for variances or changes in designated uses.

Below are general instructions on how to use this spreadsheet. The worksheet tabs along the bottom of the screen provide access to each sequential step in the analysis that is recommended in the Guidance. In all worksheets, only **cells marked with an asterisk (*)** require input. Worksheets that do not require input refer to information from other cells for the purpose of providing supplementary information and documentation. Information is automatically transferred to the appropriate worksheets for analysis and display of results.

Instructions

1. Enter information about the proposed project in the tab named: "1. Project Information" (only **cells marked with an asterisk (*)** require input).

The most cost-effective approach to meeting water quality standards should be considered in the analysis. The analysis should include assumptions about excess capacity, population growth, and consideration of alternative technologies. An accurate estimate of project costs may be available from the project's design engineers. If site-specific engineering cost estimates are not available, preliminary project cost estimates can sometimes be derived from a comparable project in the State or from the judgment of experienced water pollution control engineers. See Section 2.1.a in the Guidance for more information.

2. Enter information that will be used to calculate the municipal preliminary screener (MPS) value in the tab named: "2. MPS Inputs" (only **cells marked with an asterisk (*)** require input).

The MPS is the average annualized pollution control cost per household within the affected community. The affected community is defined as those who will pay the compliance costs. Current costs of pollution controls must be considered along with the projected annual costs of the proposed pollution control project. The existing cost per household usually can be obtained from municipal records. If project costs were estimated for a prior year, these costs should be adjusted to reflect current year prices using the average annual national Consumer Price Index (CPI) inflation rate for the period available from the Bureau of Labor Statistics. See Section 2.3 in the Guidance for more information.

3. Evaluate the MPS in the tab named: "3. MPS."

The MPS helps determine whether or not the community can clearly afford the pollution control project. The MPS is an estimate of the total annual pollution control costs per household (existing annual pollution control costs per household plus the incremental cost related to the proposed project) as a percentage of median household income. If the MPS is less than 1.0 percent, the project is unlikely to impose a substantial economic hardship on households; do not continue to the secondary analysis. If the MPS exceeds 2.0 percent, then the project may place an unreasonable financial burden on households within the community; continue with the Secondary affordability test to demonstrate substantial economic impacts. If the MPS is between 1.0 and 2.0 percent, the project may or may not impose a substantial economic hardship on households; continuing to the Secondary Test is optional. See Section 2.3 in the Guidance for more information.

4. **If the MPS indicates substantial impacts may occur** (i.e. it exceeds 1.0%), continue with the Secondary Test by entering socioeconomic data for the affected community in the tab named: "4. Secondary Test Inputs" (only **cells marked with an asterisk (*)** require input).

The resulting Secondary Test Score is calculated on tab "5. Secondary Test Score." See Section 2.4 in the Guidance for more information.

5. Evaluate the combined outcome of the MPS and Secondary Test in the tab named: "6. Substantial Impacts Matrix."

If the matrix suggests that substantial economic impacts are unlikely, then do not continue with the widespread analysis. If the matrix indicates that impacts may be or are likely to be substantial, proceed with evaluating whether the impacts are also likely to be widespread.

6. **If the substantial impacts matrix suggests that impacts may be substantial**, determine if the impacts will be widespread in the tab named: "7. Widespread Impact Analysis" (**cells marked with an asterisk (*)** require input).

There are no standard economic tests or benchmarks to evaluate whether or not substantial economic impacts will also have widespread effects. Instead, describe relative changes in socioeconomic conditions such as unemployment, local economic activity, household income, tax revenues, indirect effects on other businesses, and sewer fees. This worksheet helps collect and organize the types of information that can be considered when evaluating impacts on the surrounding community. See Section 4 in the Guidance for additional information.

Explanation of Tabs		
Name	Description	Requires Input?
Summary Checklist	Steps and information required for demonstrating substantial and widespread economic and social impacts of attainment of designated uses (Table 4-1 in the Guidance).	No
Overview	Overview of the steps involved in determining if the costs of the proposed project will likely result in substantial and widespread impacts (Figure 2-1 in the Guidance).	No
1. Project Information	Information regarding the proposed pollution control project and other projects considered. (See Section 2.1.a and Worksheet A in the Guidance.)	Yes
2. MPS Inputs	Numerical data needed to calculate the MPS, which helps to determine whether or not the community can clearly pay for the project without incurring any substantial impacts. (See Section 2.3 in the Guidance.)	Yes
3. MPS	Calculates and evaluates the MPS. (See Section 2.3 and Worksheet D in the Guidance.)	No
4. Secondary Test Inputs	Numerical data needed to calculate the secondary test scores. (See Section 2.4 and Worksheet E in the Guidance.)	Yes
5. Secondary Test Score	Calculates the secondary test score. (See Section 2.4 and Worksheet F in the Guidance.)	No
6. Substantial Impacts Matrix	Determines whether substantial impacts are likely using the MPS and secondary test score.	No
7. Widespread Impact Analysis	Descriptions of estimated change in socioeconomic conditions due to the substantial economic impacts resulting from the proposed pollution control project. This information is used to describe how substantial economic impacts would affect the community. (See Section 4 and Worksheet M in the Guidance.)	Yes
Supplementary Information		
Annualized Project Cost	Calculation of total annualized project costs, based on inputs in other worksheets; provided for informational purposes. (See Section 2.1.b and Worksheet B in the Guidance.)	No
Per-Household Cost	Calculation of total annual pollution control costs per household; provided for informational purposes. (See section 2.2 and Worksheet C in the Guidance.)	No
Potential Data Sources	Additional information on potential sources of data for tab "4. Secondary Test Inputs" (Worksheet E).	No
Example Data Sources	Example data sources for "4. Secondary Test Inputs" (Worksheet E).	No
Changelog	Describes bug fixes and other modifications that have been made since the original spreadsheet was posted to the EPA web site.	No

Comparison to Worksheets in the Guidance
<p>These worksheets provide suggested information and methods to conduct an analysis of potential substantial and widespread economic and social impacts when public sector entities must meet certain water quality standards. The worksheets are not exhaustive of all appropriate economic analyses. Alternative or additional information and tests may be necessary or desirable in certain circumstances.</p> <p>The principles and methods used to evaluate substantial and widespread economic impacts in this spreadsheet are the same principles and methods used in the Guidance. Although the EPA attempted to maintain the same general structure as the Guidance, it adopted some organizational and format modifications to increase clarity and functionality. Whenever possible, see the appropriate pages in the Guidance for assistance on specific topics or calculations. The EPA intends for this spreadsheet to be used in conjunction with the complete Guidance and not as a substitute.</p>

¹The Guidance is available at:
http://water.epa.gov/scitech/swguidance/standards/upload/2007_06_18_standards_econworkbook_complete.pdf

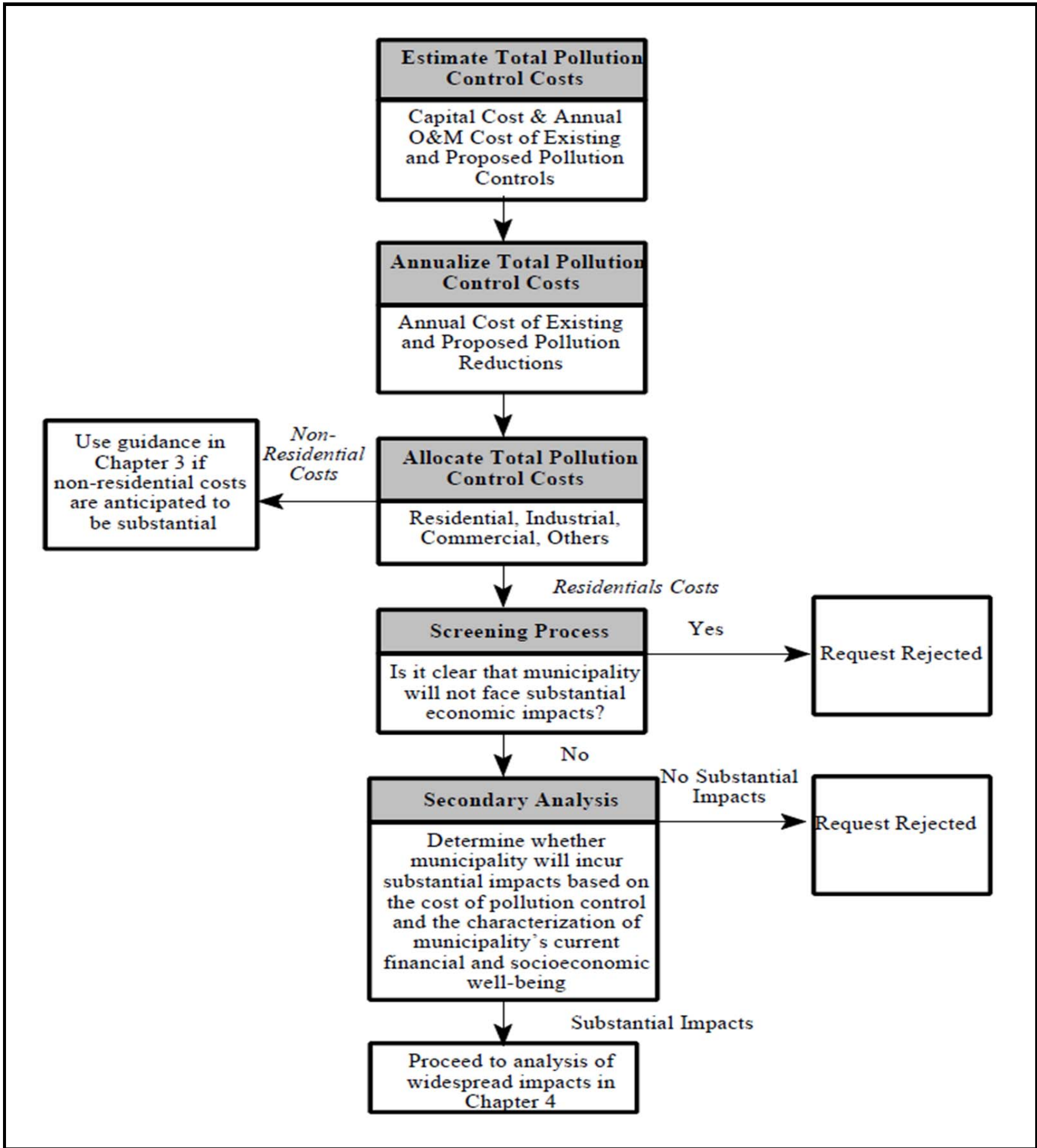
**Demonstration of Substantial and Widespread Economic and Social Impacts of Attainment of Designated Uses (Table 4-1 from the Guidance)
Checklist**

Description: This sheet lists the steps and information required for demonstrating substantial and widespread economic and social impacts of attainment of designated uses. No input is required.

Steps	Information That Will be Required
1. Demonstrate that designated use is a potential use and not an existing use.	Data from State Water Quality Assessment Documents and water quality standards regulations.
2. Demonstrate that entity will incur substantial economic impacts. a. Identify all reasonable pollution reduction options, b. Evaluate costs of all reasonable pollution reduction options, c. Identify lowest cost pollution reduction option that allows entity to meet water quality standards.	Information on end-of-pipe treatment, possible treatment upgrades, additions to existing treatment, and pollution prevention activities including the following: • change in raw materials, • substitution of process chemicals, • change in process, • water recycling, reuse and efficiency, • pretreatment requirements, and • public education Assumptions about water demand, treatment capacity, expansion plans, population growth, and effectiveness of control in reducing pollution for each option. Estimate of project costs from design engineers, costs of comparable projects in the State, or judgement of experienced water pollution control engineers. Information on treatment efficiencies for alternative pollution reduction techniques. Cost estimates for all alternatives.
3. Evaluate entity's financial health: a. determine method of financing, b. annualize pollution reduction project costs, c. allocate project costs, d. apply Municipal Preliminary Screener test, e. Depending on the results of the Municipal Preliminary Screener test, apply Secondary Test.	Information on user fee financing mechanisms such as Revenue Bonds. Information on tax based financing mechanisms such as General Obligation Bonds. Information on appropriate interest rates and period of financing. Information on user groups, wastewater flow by user group, and surcharges on industrial users. Information on average total annual pollution control cost per household and median household income. Information on results of Municipal Preliminary Screener test, overall net debt as a percent of full market value of taxable property, median household income, bond rating, community unemployment rate, property tax collection rate, and property tax revenues as a percent of full market value of taxable property.
4. Determine whether impacts are widespread: a. Evaluate change in socioeconomic conditions that occur as a result of compliance.	Information on changes in median household income, community unemployment rate, overall net debt as a percent of full market value of taxable property, percent of households below the poverty line, impact on community development potential, and impact on community property values resulting from compliance.
5. Evaluate economic benefits of cleaner water.	Information on potential benefits of cleaner water including enhanced recreational opportunities, reduced treatment costs for downstream users, and increased property values.
6. Public comment and debate period.	Be prepared to supply backup information on the application to modify or change a designated use to the public.
7. If substantial and widespread economic and social impacts are demonstrated, determine which pollution reduction option should be implemented.	Information on the cost and efficiency of affordable pollution reduction alternatives.
8. Redesignate uses.	Uses will be determined by the level of "affordable" pollution reduction.
9. Standards will be adopted to protect new uses.	Once uses are established, standards should be revised to protect those uses.
10. Effluent limits and permits will be modified.	Limits will be modified to reflect effluent concentrations associated with the "affordable" pollution reduction technique.
11. Re-evaluate water quality standards in three years.	Per federal regulations, water quality standards must be revised every three years to determine if there is any new information or technology that allows attainment of the full designated uses without causing a substantial and widespread economic and social impact.

Evaluating Substantial and Widespread Impacts: Overview (Figure 2-1 from the Guidance)

Description: This flowchart is an overview of the steps involved in determining if the costs of the proposed project will likely result in substantial and widespread impacts. No input is required.



Pollution Control Project Summary Information (Worksheet A in the Guidance)

Description: This worksheet identifies and documents the pollution control project(s) needed to meet water quality standards. See the Guidance documentation below for more information.

Instructions: Enter information in the **cells marked with an asterisk (*)** about the most cost-effective approach to meet water quality standards. The most accurate estimate of project costs may be available from the discharger's design engineers. If site-specific engineering cost estimates are not available, preliminary project cost estimates may be derived from a comparable project in the State or from the judgment of experienced water pollution control engineers.

Discharge management options to consider include:

- Pollution prevention
- End-of-pipe treatment
- Upgrades or additions to existing treatment.

Types of pollution prevention activities to consider are:

- Public education
- Change in raw materials
- Substitution of process chemicals
- Change in process
- Water recycling and reuse
- Pretreatment requirements.

Whatever the approach, the information should demonstrate that the proposed project is the most appropriate means of meeting water quality standards and fully document project cost estimates. If at least one of the options that meets water quality standards will not have a substantial financial impact, then do not proceed with the analysis.

Current Capacity of the Pollution Control System (MGD)	8.4	*
Design Capacity of the Pollution Control System (MGD)	8.4	*
Current Excess Capacity (%)	0.0%	
Expected Excess Capacity after Completion of Project (%)	0.0%	*
Projected Groundbreaking Date (MM/DD/YYYY)	2017	*
Projected Date of Completion (MM/DD/YYYY)	2023	*

Describe the proposed pollution control project.
 Replacement of Main Lift Pump Station and force main.
 Multi-phase upgrade of WWTF, including sampling and monitoring the Taunton River to assess impacts of upgrades
 Ongoing upgrades and separation of the sewer system
 Renovation/replacement of sewer pump stations
 Drainage improvements to comply with MS4 requirements

Describe the other pollution control options considered, explaining why each option was rejected.
 The selection process for the project is outlined in the Comprehensive Wastewater Management Plan and Environmental Impact Report.

Guidance Documentation		
<i>Component</i>	<i>Section</i>	<i>Page</i>
Verify Project Costs	2.1.a	2-3
Documentation of Other Options Considered	2.1.a	2-3
Annual Cost of Pollution Control (overview)	2.1.b	2-4

Data Needed to Calculate the MPS (Worksheets B and C in the Guidance)

Description: This worksheet contains the information needed to calculate the municipal preliminary screener (MPS). The MPS is the average annualized pollution control cost per household in the affected community. The MPS helps to determine whether or not the community can clearly pay for the project without incurring any substantial impacts. See the Guidance documentation below for additional information.

Instructions: Enter the requested information into the **cells marked with an asterisk (*)**. The affected community is the governmental jurisdiction or jurisdictions responsible for paying compliance costs. Current costs of pollution controls can also be considered in addition to the projected annual costs of the proposed pollution control project. The existing cost per household usually can be obtained from municipal records. If project costs are estimated for a prior year, these costs should be adjusted to reflect current year prices using the average annual national Consumer Price Index (CPI) inflation rate for the period available from the Bureau of Labor Statistics.

Capital Cost		
Capital Cost of Project (\$)		\$84,500,000 *
Other One-Time Costs of Project (list below, if any):		
<i>Description of Cost Element</i>		<i>Cost (\$)</i>
MS4 Capital costs (65%)	*	\$11,700,000 *
Sewer Improvements, Pump Station Upgrades	*	\$41,600,000 *
Sampling and Monitoring Taunton River and Mount Hope Bay for Permit	*	\$3,000,000 *

Capital Costs to be Paid by Grants (\$)	\$0 *
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	MA CWSRF Loan *
Interest Rate for Financing (%)	2.00% *
Time Period of Financing (years)	20 *

Annual costs of operation and maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement; list below.)		
<i>Description of Cost Element</i>		<i>Cost (\$)</i>
Increases to Existing Veolia O&M Contract	*	\$500,000 *
Additional O&M Costs associated with Upgrades	*	\$1,000,000 *
	*	*
Increased Pump Station O&M Costs	*	\$600,000 *
Stormwater (MS4) Compliance Annual Costs	*	\$2,300,000 *
	*	*
Total Annual Cost of Existing Pollution Control (\$)		\$5,900,000 *
Amount of Existing Costs Paid by Households (\$)		\$4,602,000 *
Number of Households (do not use number of hook-ups)		13,984 *

Will households provide revenues for the new pollution control project in the same proportion that they support existing pollution control? (Check a, b or c, below.)		
<input checked="" type="checkbox"/> a) Yes		*
<input type="checkbox"/> b) No, they will pay a different percentage. Enter to right.		*
<input type="checkbox"/> c) No, they will pay based on flow. Answer three questions to right. (Corresponds to Worksheet C, Option A.)	1. Total Usage of Project (e.g., MGD for wastewater treatment)	*
	2. Usage Due to Household Use (MGD of household wastewater)	*
	3. Industrial Surcharges, if any (\$ total per year)	*

Median Household Income (from Census)	\$48,230 *
Current CPI	233.71 *
CPI for the year of the Census	218.01 *
Adjustment Factor [current CPI / CPI for the year of the Census]	1.07
Adjusted Median Household Income [Median Household Income x Adjustment Factor]	\$51,703

Guidance Documentation		
Component	Section	Page
Evaluating Substantial Impacts (overview)	2	2-1
Capital Cost	2.1a	2-2
Annual Cost of Existing Pollution Controls	2.1b	2-3
Financing	2.1b	2-4
Annual Cost of Operations and Maintenance	2.1b	2-4
Median Household Income	2.3	2-7
Adjusting Median Household Income	2.3	2-7

Municipal Preliminary Screener (Worksheet D in the Guidance)

Description: This worksheet calculates and displays the Municipal Preliminary Screener (MPS), which is the total annual pollution control costs per household (existing annual cost per household plus the incremental cost related to the proposed project) as a percentage of median household income.

$$\text{Total Annual Pollution Control Cost per Household} / \text{Adjusted Median Household Income} \times 100$$

The MPS indicates if a public entity would clearly not incur substantial economic impacts as a result of the proposed pollution control project.

Instructions: Evaluate the MPS by noting which cell is highlighted in **orange** and **marked with an asterisk (*)**. If the MPS is less than 1.0 percent of median household income, the EPA does not expect the pollution control project to impose a substantial economic impact on the community; do not continue to the secondary affordability test. If the MPS is greater than 2.0 percent of median household income, then the pollution control project may result in a substantial economic impact to the community; continue to the secondary affordability test. If the MPS is between 1.0 and 2.0 percent of median household income, the community may incur a mid-range economic impact; continuing to the secondary affordability test is optional. See the Guidance documentation below for more information.

A. Calculation of the MPS		
Total Annual Pollution Control Cost per Household [Worksheet C, (11) or Worksheet C: Option A, (10)]	\$1,054.81	(1)
Adjusted Median Household Income	\$51,703	(2)
MPS $[(1) / (2)] \times 100$	2.04%	(3)

B. Evaluation of the MPS		
Note column of cell highlighted in orange and marked with an asterisk (*) below:		
<p>Little Impact Less than 1.0%</p> <p>Indication of no substantial economic impacts</p>	<p>Mid-Range Impact 1.0% - 2.0%</p> <p>-----></p> <p>Proceed to Secondary Test</p>	<p>Large Impact Greater than 2.0% *</p>

Guidance Documentation		
Component	Section	Page
MPS	2.3	2-6
Annual Pollution Control Cost per Household	2.2	2-5
Median Household Income	2.3	2-7
Census	2.3	2-7
Interpreting MPS	2.3	2-7
Determining Need for Secondary Test	2.3	2-7

Data Needed to Calculate the Secondary Test Score (Worksheet E in the Guidance)

Description: This worksheet contains the numerical data necessary to calculate the secondary test score. The secondary test score characterizes the community's current financial and socioeconomic condition. See the Guidance documentation below for additional information.

Instructions: If the MPS indicates substantial impacts may occur (i.e. it exceeds 1.0%), proceed with the secondary test by entering socioeconomic data for the affected community in the **cells marked with an asterisk (*)**. Additional information on potential sources of data are provided in the tab named: "Potential Data Sources," and example data sources are provided in the tab named: "Example Data Sources." If one or more of the six indicators is not developed, provide an explanation as to why the indicator is not appropriate or not available.

A. Socioeconomic Data

Data	Potential Source	Value	
Direct Net Debt (\$)	Community Financial Statements Town, County or State Assessor's Office	\$132,131,469	* (1)
Overlapping Debt (\$)	Community Financial Statements Town, County or State Assessor's Office	\$1,055,504	* (2)
Market Value of Taxable Property (\$)	Community Financial Statements Town, County or State Assessor's Office	\$4,422,983,044	* (3)
Bond Rating (for uninsured bonds)	Standard and Poor's or Moody's	Aa3	* (4)
Community Unemployment Rate (%)	Census of Population Regional Data Centers	5.3%	* (5)
National Unemployment Rate (%)	Bureau of Labor Statistics	5.6%	* (6)
Community Median Household Income (not adjusted for inflation)	Census of Population	\$48,230	(7)
State Median Household Income (for same time period as Community MHI) (\$)	Census of Population	\$66,658	* (8)
Property Tax Collection Rate (%)	Community Financial Statements Town, County or State Assessor's Office	98.1%	* (9)
Property Tax Revenues (\$)	Community Financial Statements Town, County or State Assessor's Office	\$80,717,625	* (10)

If any cell above is left blank, explain why the indicator is not appropriate or not available:

*

Some states have statutory limits on property tax collections and/or rates, or data on full-market value of taxable property are not available. If this is the case, select "yes" below and provide the number of people residing in the affected community.

Are there statutory limits on property tax collections and/or rates in the state, or are data on the full-market value of taxable property not available?

a) No *

b) Yes (enter the number of residents in the affected community below) *

Population (#)	Census of Population	56,055	* (Pop.)
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B. Calculated Indicators (for informational purposes only)

1. Overall Net Debt as a Percent of Full Market Value of Taxable Property

Overall Net Debt [(1) + (2)]	\$133,186,973	(11)
Overall Net Debt as a Percent of Full Market Value of Taxable Property $[(11)/(3)] \times 100$	3.01%	(12)

1a. Overall Net Debt Per Capita (Alternative Indicator)

Overall Net Debt Per Capita $[(11) / (\text{Pop.})] \times 100$	\$2,376	(12 Alt.)
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2. Property Tax Revenues as a Percent of Full Market Value of Taxable Property

Property Tax Revenues as a Percent of Full Market Value of Taxable Property $[(10)/(3)] \times 100$	1.82%	(13)
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Guidance Documentation

Component	Section	Page
Secondary Test (overview)	2.4	2-7
Net and Overlapping Debt	2.4	2-9
Bond Rating	2.4	2-8
Unemployment Rate	2.4	2-9
Median Household Income	2.4	2-10
Property Tax	2.4	2-10
Alternative Indicators	2.4	2-11
Use of Secondary Test	2.4	2-11

Calculation of the Secondary Test Score (Worksheet F in the Guidance)

Description: This worksheet calculates the secondary test score, which characterizes the affected community's current financial and socioeconomic condition. The secondary test score is used in combination with the MPS to evaluate whether or not substantial economic impacts are likely to occur. See the Guidance documentation below for additional information.

Instructions: Verify that the appropriate cell is selected in each row and in the "Score" column to be summed below (highlighted in orange and marked with an asterisk (*)).

Indicator	Secondary Indicators			Score
	Weak ^a	Mid-Range ^b	Strong ^c	
Bond Rating Worksheet T, (4)	Below BBB (S&P) Below Baa (Moody's)	BBB (S&P) Baa (Moody's)	Above BBB (S&P) * Above Baa (Moody's) *	3 *
Overall Net Debt as Percent of Full Market Value of Taxable Property Worksheet T, (12)	Above 5%	2% - 5%	Below 2%	N/A
Overall Net Debt Per Capita ¹ Worksheet T, (12 Alt.)	Greater than \$3,000	\$1,000 - \$3,000 *	Less than \$1,000	2 *
Unemployment ² Worksheet T, (5) & (6)	Above National Average	National Average *	Below National Average	2 *
Median Household Income ³ Worksheet T, (7) & (8)	Below State Median *	State Median	Above State Median	1 *
Property Tax Revenues as a Percent of Full Market Value of Taxable Property ⁴ Worksheet T, (13)	Above 4%	2% - 4%	Below 2%	N/A
Property Tax Collection Rate ⁴ Worksheet T, (9)	< 94%	94% - 98%	> 98% *	3 *
Average of Financial Management Indicators ⁴ Worksheet T, (13) and (9)				N/A
a. Weak is a score of 1 point			SUM	11
b. Mid-Range is a score of 2 points				
c. Strong is a score of 3 points			AVERAGE	2.2

Notes:

- ¹ If the state has statutory limits on property tax collections and/or rates or data on full-market value of taxable property are not available, "Overall Net Debt as Percent of Full Market Value of Taxable Property" is replaced with "Overall Net Debt Per Capita" and "Property Tax Revenues as a Percent of Full-Market Value of Taxable Property" is dropped.
- ² If the community's employment rate is equal to the national average unemployment rate, plus or minus 1%, then the community's unemployment rate is assessed as being equal to the national rate.
- ³ If the community's median household income is equal to the state median, plus or minus 10%, then the community's median household income is assessed as being equal to the state's median household income.
- ⁴ If one of the debt or socioeconomic indicators is not available, the two financial management indicators are averaged and this averaged value is used as a single indicator with the remaining indicators.

Guidance Documentation

Component	Section	Page
Calculating Secondary Test Score	2.4	2-11
Interpreting Secondary Test Score	2.4	2-11
Missing Indicators	2.4	2-12
Determining Need for Widespread Analysis	2.5; Figure 2-1	2-12; 2-14

Conclusion for Community

Description: This matrix evaluates the likelihood of substantial economic impacts due to implementation of the pollution control costs. See the Guidance documentation below for additional information.

Instructions: Evaluate the combined results of the MPS and the secondary test by noting which cell in the Substantial Impacts Matrix below is highlighted in **orange** and **marked with an asterisk (*)**. If the matrix indicates the pollution control project is not likely to impose a substantial economic impact on the community, do not continue to the widespread analysis. If the matrix indicates the pollution control project is likely to impose a substantial economic impact on the community, continue to the widespread analysis. If the matrix indicates the pollution control project may or may not impose a substantial economic impact on the community, continuing to the widespread analysis is optional.

Assessment of Substantial Impacts Matrix (Table 5-2 from the Guidance)

MPS: 2.0%
Secondary Test Score: 2.2

Secondary Test Score	MPS		
	Less than 1.0 Percent	Between 1.0 and 2.0 Percent	Greater than 2.0 Percent
Less than 1.5	?	X	X
Between 1.5 and 2.5	✓	?	X *
Greater than 2.5	✓	✓	?

Key:
 ✓ : Impact is not likely to be substantial
 X : Impact is likely to be substantial
 ? : Impact is unclear

Guidance Documentation		
Component	Section	Page
Using Substantial Impacts Matrix	2.5	2-12
Determining Need for Widespread Analysis	2.5; Figure 2-1	2-12; 2-14

**Qualitative Description of Estimated Change in Socioeconomic Indicators Due to Pollution Control Costs
(Worksheet M in the Guidance)**

Description: This worksheet indicates whether the substantial economic impacts will also be widespread. The EPA considers substantial economic impacts to be widespread if they will have significant adverse impacts on the local community. See the Guidance documentation below for additional information.

Instructions: Enter information in the **cells marked with an asterisk (*)** to determine if the substantial economic impacts would result in widespread adverse economic impacts to the local community. Because there are no standard economic tests or benchmarks that evaluate socioeconomic impacts for the widespread demonstration, describe the relative changes in indicators such as unemployment, the local economy, household income, tax revenues, indirect effects on other businesses, and sewer fees. This worksheet will help collect and organize the types of information that can be used to determine and demonstrate whether substantial economic impacts will also be widespread.

Estimated change in Median Household Income (MHI)	*
Estimated change in the unemployment rate	*
Estimated change in overall net debt as a percent of full market value of taxable property	*
Estimated change in % of households below the poverty line	*
Impact on commercial development potential	*
Impact on property values	*

Guidance Documentation		
<i>Component</i>	<i>Section</i>	<i>Page</i>
Determination of Widespread Impacts	4	4-1
Defining Relevant Geographic Area	4.1	4-1
Criteria for Evaluating Widespread Impacts	4.2	4-2
Secondary Impacts to Community	4.2	4-3
Multiplier Effect	4.4	4-5
Economic Benefits of Clean Water	4.5; Appendix C	4-6; Appendix C

Calculation of Total Annualized Project Costs (Worksheet B in the Guidance)

Description: This worksheet displays the total annualized project costs. This worksheet is for informational purposes only. No input is required.

A. Capital Costs		
Capital Cost of Project	\$84,500,000	
Other One-Time Costs of Project (please list, if any):		
MS4 Capital costs (65%)	\$11,700,000	
Sewer Improvements, Pump Station Upgrades	\$41,600,000	
Sampling and Monitoring Taunton River and Mount Hope Bay for Permit	\$3,000,000	
Total Capital Costs (sum column)	\$140,800,000	(1)
Portion of Capital Costs to be Paid with Grant Monies	\$0	(2)
Capital Costs to be Financed [(1) - (2)]	\$140,800,000	(3)
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	MA CWSRF Loan	
Interest Rate for Financing	2.00%	(i)
Time Period of Financing (in years)	20	(n)
Annualization Factor = $i/((1+i)^n - 1) + i$	0.0612	(4)
Annualized Capital Cost [(3) × (4)]	\$8,610,866	(5)

B. Operating and Maintenance Costs		
Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement; list below).		
Increases to Existing Veolia O&M Contract	\$500,000	
Additional O&M Costs associated with Upgrades	\$1,000,000	
	\$0	
Increased Pump Station O&M Costs	\$600,000	
Stormwater (MS4) Compliance Annual Costs	\$2,300,000	
Total Annual O & M Costs (sum column)	\$4,400,000	(6)

C. Total Annual Cost of Pollution Control Project		
Total Annual Cost of Pollution Control Project [(5) + (6)]	\$13,010,866	(7)

Guidance Documentation		
Component	Section	Page
Capital Cost	2.1.a	2-3
Financing	2.1.b	2-4
Interest Rate for Financing	2.1.b	2-4
Debt	2.1.b	2-4
Total Annual Cost of Pollution Control	2.1.b	2-5
Operating and Maintenance Costs	2.1.b	2-5

Calculation of Total Annual Pollution Control Costs Per Household (Worksheet C)		
Description: This worksheet displays the total annual pollution control costs per household calculated from data entered in other spreadsheets. This worksheet is for informational purposes only. No input is required.		
If the option in the tab named "2. MPS Inputs" indicates that households will provide revenues for the pollution control project in the same or different proportion that they support existing pollution control (choice a or b), then the spreadsheet uses Worksheet C parts A, B, and C. However, if households pay based on flow (choice c), then the spreadsheet uses Worksheet C part A and Worksheet C: Option A .		

A. Current Pollution Control Costs		
Total Annual Cost of Existing Pollution Control	\$5,900,000	(1)
Amount of Existing Costs Paid by Households	\$4,602,000	(2)
Percent of Existing Costs Paid by Households	78.00%	(3)
Number of Households *	13,984	(4)
Annual Cost Per Household [(2)/(4)]	\$329.09	(5)
* Do not use number of hook-ups.		

B. New Pollution Control Costs			
Will households provide revenues for the new pollution control project in the same proportion that they support existing pollution control?			
<input checked="" type="checkbox"/>	a) Yes [fill in percent from (3)]	78.00%	(6a)
<input type="checkbox"/>	b) No, they will pay	0.00%	(6b)
<input type="checkbox"/>	c) No, they will pay based on flow. (Continue on Calculation of Total Annual Pollution Control Costs Per Household Based on Flow.)		
Total Annual Cost of Pollution Control Project [Line (7), Worksheet B]	\$13,010,866		(7)
Proportion of Costs Paid by Households [(6a) or (6b)]	0.78		(8)
Amount to be Paid by Households [(7) × (8)]	\$10,148,475		(9)
Annual Cost per Household [(9)/(4)]	\$725.72		(10)

C. Total Annual Pollution Control Cost per Household		
Total Annual Cost of Pollution Control Project per Household [(5) + (10)]	\$1,054.81	(11)

Calculation of Total Annual Pollution Control Costs Per Household Based on Flow (Worksheet Q: Option A)		
A. Calculating Project Costs Incurred by Households Based on Flow		
Total Usage of Project (e.g., MGD for wastewater treatment)	0.0	(1)
Usage Due to Household Use (MGD of household wastewater)	0.0	(2)
Percent of Usage Due to Household Use [(2)/(1)]	0.00%	(3)
Total Annual Cost of Pollution Control Project	\$13,010,866	(4)
Industrial Surcharges, if any	\$0	(5)
Costs to be Allocated [(4) - (5)]	\$13,010,866	(6)
Amount to be Paid by Households [(3) × (6)]	\$0	(7)
Annual Project Cost per Household [(7) / Worksheet C , (4)]	\$0.00	(8)

C. Total Annual Pollution Control Cost per Household		
Annual Existing Costs per Household [Worksheet C , (5)]	\$329.09	(9)
Total Annual Cost of Pollution Control per Household [(8) + (9)]	\$329.09	(10)

Guidance Documentation		
Component	Section	Page
Defining Affected Community	2.2	2-5
Adjusting Prior Year's Estimates	2.2	2-5
Impact of Cost Distribution in Community	2.2	2-6
Approaches to Calculating Current Costs	2.2	2-6
Total Annual Cost of Pollution Control Project	2.1.a	2-3
Industrial Surcharges	2.2	2-6

Potential Data Sources for Secondary Test Inputs

Description: This worksheet provides potential sources for the socioeconomic data required to perform the calculations in this spreadsheet. This worksheet is for informational purposes only. No input is required.

Indicator	Potential Data Source
Direct Net Debt	Community Financial Statements
Overlapping Debt	Community Financial Statements
Market Value of Property	Community Financial Statements. If community-specific information cannot be found, median property values by state can be found through American Community Survey Reports: http://www.census.gov/prod/2009pubs/acsbr08-6.pdf Combine data with the number of properties in the community.
Bond Rating	Standard and Poor's or Moody's
Community Unemployment Rate	U.S. Department of Labor, Bureau of Labor Statistics: Local Area Unemployment Statistics: http://www.bls.gov/lau/#tables
National Unemployment Rate	U.S. Department of Labor, Bureau of Labor Statistics: Labor Force Statistics from the Current Population Survey: http://data.bls.gov/timeseries/LNS14000000
Community Median Household Income	U.S. Census Bureau: State & County QuickFacts (select state, then county or city within state): http://quickfacts.census.gov/qfd/index.html
State Median Household Income	U.S. Census Bureau: State Median Income: http://www.census.gov/hhes/www/income/data/statemedian/
Property Tax Collection Rate	Community Financial Statements. If community-specific information cannot be found, statewide data can be found at the U.S. Census Bureau's Quarterly Summary of State & Local Taxes: http://www.census.gov/govs/qtax/
Property Tax Revenues	Community Financial Statements. If community-specific information cannot be found, statewide data can be found at the U.S. Census Bureau's Quarterly Summary of State & Local Taxes: http://www.census.gov/govs/qtax/ Scale according to size of community relative to state.

Example Data Sources for Secondary Test Inputs

Description: This worksheet provides two specific examples of where socioeconomic data required to perform the calculations in this spreadsheet may be obtained for two communities. This worksheet is for informational purposes only. No input is required.

Indicator	Example Data Sources for Fairfax County, Virginia	Example Data Sources for Brookings County, South Dakota
Direct Net Debt	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) is available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm It provides detailed financial information for the county's primary government, including debt (page 20).	The Community Financial Statement is not available online; however the financial statements were audited in 2010 for the year ending in December 2009, and the audit report is available online: http://legislativeaudit.sd.gov/Reports/County/Brookings%20County%202009.pdf As such, the 2009 financial data, including debt, from 2009 can be used.
Overlapping Debt	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) is available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm It provides detailed financial information for "component units" such as public schools, park authorities, and others which may be counted as overlapping entities (page 21).	The Community Financial Statement is not available online; however the financial statements were audited in 2010 for the year ending in December 2009, and the audit report is available online: http://legislativeaudit.sd.gov/Reports/County/Brookings%20County%202009.pdf This includes financial data on component units. As such, the 2009 financial data, including debt, from 2009 can be used.
Market Value of Property	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) is available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm It provides detailed financial information for the county, including an additional statistical section which shows the assessed value of all taxable and nontaxable property in the county (page 246).	The Community Financial Statement is not available online; however, the state of South Dakota provides a recapitulation of property tax statistical information, and Brookings County has links to those documents available on its property tax website: http://www.state.sd.us/drr2/prospectax/property/publications.htm (page 60 contains the relevant information on the market value of property, as well as the property tax collection).
Bond Rating	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) is available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm provides the county's credits cores from both Standard and Poor's and Moody's (page XVII).	Standard and Poor's: http://www.standardandpoors.com/ratings/en/us/ Allows a search of government entities (by state under "Public Finance U.S.") to registered users (at no cost) and provides a summary of credit issuances and their associated ratings.
Community Unemployment Rate	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community unemployment rate for Fairfax County, select the topic "People:Income/Earnings (Households)"; narrow the geography to Fairfax County, Virginia; and within the Search results, search for: DP03: Selected Economic Characteristics.	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community unemployment rate for Brookings County, select the topic "People:Income/Earnings (Households)"; narrow the geography to Brookings County, South Dakota; and within the Search results, search for: DP03: Selected Economic Characteristics.
National Unemployment Rate	The Bureau of Labor Statistics provides national unemployment rate: http://data.bls.gov/timeseries/LNS14000000	The Bureau of Labor Statistics provides national unemployment rate: http://data.bls.gov/timeseries/LNS14000000
Community Median Household Income	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community median household income for Fairfax County, select the topic "People:Income/Earnings (Households)"; narrow the geography to Fairfax County, Virginia; and within the Search results, search for: DP03: Selected Economic Characteristics.	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community median household income for Brookings County, select the topic "People:Income/Earnings (Households)"; narrow the geography to Brookings County, South Dakota; and within the Search results, search for: DP03: Selected Economic Characteristics.
State Median Household Income	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community median household income for Virginia, select the topic "People:Income/Earnings (Households)"; narrow the geography to Virginia; and within the Search results, search for: DP03: Selected Economic Characteristics.	The American Factfinder: http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml Allows the user to find specific census data sets. To identify the community median household income for South Dakota, select the topic "People:Income/Earnings (Households)"; narrow the geography to South Dakota; and within the Search results, search for: DP03: Selected Economic Characteristics.
Property Tax Collection Rate	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) is available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm and provides the county's property tax collection rate on page 247.	The Community Financial Statement is not available online; however the state of South Dakota provides a recapitulation of property tax statistical information, and Brookings County has links to those documents available on its property tax website: http://www.state.sd.us/drr2/prospectax/property/publications.htm (page 60 contains the relevant information on the market value of property, as well as the property tax collection).
Property Tax Revenues	Fairfax County's 2011 Comprehensive Annual Financial Report (CAFR) available from the county's Finance website: http://www.fairfaxcounty.gov/finance/cafr.htm and provides the county's property tax revenue data (page 8).	The Community Financial Statement is not available online; however the state of South Dakota provides a recapitulation of property tax statistical information, and Brookings County has links to those documents available on its property tax website: http://www.state.sd.us/drr2/prospectax/property/publications.htm (page 60 contains the relevant information on the market value of property, as well as the property tax collection).

Changelog

Description: This worksheet describes bug fixes and other modifications that have been made since the original spreadsheet was posted to the EPA web site.

June 2013

On "2. MPS Inputs" and "4. Secondary Test Input" tabs, made minor formatting changes for consistency (bold outline for instruction boxes, and number format in cells F32 and F33)

On "5. Secondary Test Score" and "7. Widespread Impact Analysis," corrected minor formatting issues (cell borders)

Unlocked cell B17 (description of missing data) in "4. Secondary Test Inputs"

Fixed minor formatting issues for printer compatibility on several tabs

Fixed two typos in cells B20 and B21 in "Purpose and Instructions"