



Minnesota Pollution Control Agency

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April 26, 2017

Mr. Craig Clark, City Administrator
City of Austin
500 Fourth Avenue NE
Austin, MN 55912-7197

RE: Minnesota Management and Budget Report on City of Austin Wastewater Treatment Plant Costs

Dear Mr. Clark:

Thank you for your March 2017 letter regarding the report on the potential costs of water quality standards and rules (cost report) recently completed by Barr Engineering under contract with Minnesota Management and Budget (MMB). I am aware of the report, and the inclusion of potential cost estimates for the City of Austin's wastewater treatment plant (WWTP).

Before addressing the cost estimates, I want to first sincerely thank you and all those at the City of Austin for your partnership and support in efforts to keep our state's waters safe and clean for future generations. The work that cities have done and continue to do is fundamental in improving our state's water quality and providing safe and clean water to citizens no matter where they live. Maintenance and investment in infrastructure by your city and the state have also produced measurable improvements in our water quality.

I also fully appreciate the costs faced by communities to upgrade wastewater treatment facilities due to new standards and maintenance needs. Indeed, this understanding has led to the Governor's bonding proposal for \$167 million in funding to the Public Facilities Authority for water and wastewater infrastructure grants and loans. As I am sure you know, funding alone is not enough. We also need to explore every opportunity to minimize costs and ensure that the steps we are collectively taking to address water quality problems are an effective use of public and private funds. I want to stress that the Minnesota Pollution Control Agency (MPCA) remains committed to working with each and every city to craft a permitting approach that is cost effective, tailored to the city's needs, and reaches our shared clean water goals.

Let me now respond to the specific concerns you raised about the potential costs to Austin for meeting current and new water quality standards. As you noted in your letter, the recently completed cost study indicated that Austin *could* see expenses of more than \$77 million to upgrade its current WWTP to meet current and potential standards. I emphasize the word "could," because while the costs documented in the cost report reflect the anticipated costs of constructing a new treatment facility, there are several provisions in place or underway designed to avoid or reduce those potential costs considerably.

Nearly 75 percent of the capital costs – more than \$57 million – identified in the cost report involve chloride treatment. The chloride standard is not a new standard; it was adopted into Minnesota Rules in 1990 to protect aquatic insects from chloride toxicity. However, the treatment technology currently available to remove chloride from wastewater is cost-prohibitive for most municipalities, including the City of Austin. To address this economic and technological reality, I have convened a work group of municipal representatives, consultants and agency staff to develop an approach in response to this conclusion. That group presented their recommendations to the MPCA Advisory Committee on April 18, 2017. I welcome those recommendations, and am committed to implementing an approach that facilitates environmental progress and innovation while recognizing current economic constraints. More information about chloride and WWTPs is available at <https://www.pca.state.mn.us/chloride-and-water-quality>.

Of the remaining potential capital costs identified in the cost study to upgrade the Austin WWTP, a significant portion would be due to a change in treatment process needed to achieve nitrate treatment, if required. It is important to point out that the MPCA has not yet proposed a nitrate standard that would be applicable to the Austin WWTP, so any cost estimates associated with nitrate treatment are purely hypothetical. However, I commend you for recognizing that a new nitrate water quality standard may be developed in the future and for working to understand the potential implications for your city.

Finally, the cost report also estimates significant costs associated with phosphorus treatment. Unlike the majority of other WWTPs in Minnesota, the Austin WWTP currently is not required to remove phosphorus from its discharge. The average phosphorus concentrations discharged from the WWTP are slightly more than four parts per million (mg/L). The cost report assumes that phosphorus discharges will need to be reduced to 0.28 mg/L to meet the river eutrophication standards. However, that assumption is by no means a given.

A limit will only be required if needed to avoid causing or contributing to an impairment of the Cedar River for river eutrophication standards, or if needed to meet water quality standards established for downstream waters (please note that the state of Iowa is implementing a 1 mg/L phosphorus treatment requirement). In the case of the Cedar River, that determination will not be made until additional monitoring is complete. Additionally, the limit may not be as low as assumed in the cost study. MPCA staff have developed some preliminary estimates of what total phosphorus limits might be needed for the Austin WWTP if the Cedar River were found to exceed the river eutrophication standard after additional monitoring. Those estimates indicate a calendar month average total phosphorus (TP) effluent limit of 1.3 mg/L, which would apply from June to September. This concentration limit is designed to achieve a long-term summer average of 0.63 mg/L of TP discharged from the WWTP. Such a limit would likely be accompanied with permit language noting that the monthly average limit of 1.3 mg/L could be lowered if a long-term summer average of 0.63 mg/L TP was not achieved.

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The above preliminary TP effluent limit estimates for the Austin WWTP align with MPCA's track record so far in implementing the river eutrophication standards. Since the adoption of the standards in 2014, MPCA has issued 27 permits with RES-based limits. This amounts to nearly 25% of the municipal wastewater permits we estimate will need RES-based limits to protect rivers and streams from the impacts of excess nutrients. Of those 27 permits, only five have required facility upgrades; in no case have we established an RES-based limit that equates to a phosphorus concentration of less than 0.5 mg/L. While we expect that a few wastewater facilities may need more stringent limits, our experience thus far indicates that this situation will not be common. With all that said, we recognize that when facility upgrades are needed, they are a big deal to Minnesota communities, regardless of what is driving the costs. I am committed to finding creative and flexible approaches to meet our mutual water quality goals at the least cost. We continue to explore all the tools at our disposal including water quality trading, compliance schedules, variances and innovation, and we welcome your input and partnership in that effort.

Thank you again for your letter. I appreciate this opportunity to discuss the reality of the wastewater and water infrastructure costs facing Minnesota municipalities in general, and to address your specific concerns about the City of Austin's WWTP costs in particular. I hope this response has provided a more complete picture of the likelihood of such costs being realized, and examples of steps MPCA is taking to help address cost concerns. For my part, and at the MPCA, we value your partnership in this important endeavor, and we stand ready to work with you to find the right solutions. Please do not hesitate to contact Wendy Turri, MPCA Municipal Wastewater Section Manager, at 507-206-2651 or wendy.turri@state.mn.us at any time to share your input or ideas, or arrange a meeting for further discussion.

Sincerely,



John Linc Stine
Commissioner

JLS:cbg