



Existing Site

March, 2015

Wastewater Treatment Facility

City of Blue Earth



Legend

Existing Structures

Year Constructed	Color
1960's	Red
1986	Yellow
1999	Green
2009	Blue

0 50 Feet

Source: Faribault County



BOLTON & MENK, INC.

Consulting Engineers & Surveyors

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VIA EMAIL AND U.S. MAIL

September 8, 2014

Jamie Holland, Public Works Director
City of Blue Earth
125 W. 6th St.
Blue Earth, MN 56013

RE: Wastewater Treatment Facility Improvement Needs / Capital Improvements Plan
Blue Earth, Minnesota

Dear Mr. Holland,

Based on my site visit to the wastewater treatment facility on July 29, 2014, and Bolton & Menk's previous work at the wastewater treatment facility, I have developed a preliminary list of facility improvements at the wastewater treatment facility. This facility was originally constructed in 1963 with miscellaneous upgrades over the years to aeration basins, biosolids treatment, and other equipment upgrades. Since the facility is over 50 years old (treatment plants are designed to last 20 years with concrete structures typically lasting 40-50 years), a number of systems are long overdue for a significant upgrade as the facility has surpassed its useful life. Timely improvements will help minimize equipment breakdown and avoid discharge violations in the future.

The wastewater improvements we discussed are summarized below with preliminary cost estimates to assist the city in the early planning stages. These costs account for current treatment capacity and typical city growth, significant expansion of the service area is not accounted for with these costs.

Preliminary Cost Opinion of Blue Earth's WWTF Upcoming Needs*	
1. Operations building influent wet well and main pump station	\$1,600,000
2. Primary clarifier mechanisms	200,000
3. Aeration basin blowers/piping/valves with building area	400,000
4. Bar screen/pretreatment	350,000
5. Grit removal	175,000
6. Final clarifier mechanisms/ventilation/equipment	225,000
7. Scum pumping	25,000
8. SCADA, electrical and control improvements	400,000
9. Biosolids (misc. small items)	100,000
10. HVAC upgrades	50,000
	Subtotal = \$3,525,000
	25% Contingencies/Admin./Engineering/Legal = \$850,000
	Preliminary Project Total = \$4,375,000
* It should be noted that these costs are preliminary and more detailed information is required to better evaluate the needs and cost opinion.	

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Because of the significant costs that could be associated with the next improvements, I would recommend that Bolton & Menk begin work on a detailed Facility Plan to provide the city with a comprehensive report regarding the City's wastewater treatment infrastructure. This document would provide sound logical discussion regarding the need for the improvements, evaluation of alternatives (including better defining of costs for each alternate), and the recommended course of action. This document is also the first step to obtain low interest loans and grants from the State of Minnesota. Depending on future permit limits and ranking of this potential project by the Minnesota Pollution Control Agency (MPCA), this project could qualify for State funding. To pursue Clean Water Revolving Fund low interest loans and Point Source Implementation Grants, the Facility Plan will need to be completed.

For the Facility Plan work, Bolton & Menk, Inc. is pleased to present this proposal for professional engineering services. This proposal will define our scope of work and provide you with an estimate of the cost of these services. Bolton & Menk, Inc. brings a wide variety of expertise and will provide Blue Earth with a quality, common sense document to make cost-effective improvements to last another 20-50 years.

PROJECT DESCRIPTION

This proposal is to provide engineering services to prepare and present a wastewater Facility Plan following the MPCA requirements. This report will help the City determine its needs and most suitable alternatives for the next 20 years of wastewater treatment. In preparation of a significant upgrades to the facility, it is anticipated the City may receive more stringent effluent limits from the MPCA.

Bolton & Menk's experience is unmatched in the upper Midwest and will provide Blue Earth with a cost effective solution to their wastewater needs, as well as an operator friendly facility built for the future.

SCOPE OF WORK – FACILITY PLAN

1.0 Meetings

- 1.1 Bolton & Menk, Inc. (BMI) would propose to meet with Blue Earth for a kick-off meeting to review the site again, gather data, and discuss Blue Earth's preferences and goals. As part of this meeting, or during a separate meeting, Bolton & Menk would also suggest meeting with area industries to gain a better understanding of their potential needs and projected growth.
- 1.2 BMI would attend a meeting with the City of Blue Earth to review the completed report and discuss recommendations.
- 1.3 BMI would attend a public hearing for presentation of the Facility Plan to Blue Earth's Council and residents as required by MPCA.

2.0 Report

- 2.1 Our team will prepare a Facility Plan that will comply with all MPCA requirements for facility plans including:
 1. Review of historical flow and loading data and projections of future flow and loadings. Future flow and loading considerations would include: City of Blue Earth growth, industries, and other possible areas the City could serve in the future. This review of the service area will help the City make a sound decision for treatment now and for the future.



2. An evaluation of the existing system and any deficiencies.
3. Review of treatment alternatives to address current needs and proposed changes (including future regulations and any additional flows and/or loadings).
4. Provide estimated operational and construction costs.
5. Provide discussion on financing alternatives.
6. Provide environmental review worksheet to MPCA.
7. Assist city in submitting the report to MPCA for CWRP financing and any grant opportunities thru the Minnesota Public Facilities Authority.

3.0 Fees

3.1 The following is a summary of the fees for the work described above. These fees would be billed hourly and shall not exceed the amount shown.

Meetings and Reviews	\$5,000
Report / Facility Plan Development	\$21,750
Environmental Assessments and MPCA Correspondence	\$3,250
Report Finalization	\$2,500
Total Proposed Fee =	\$32,500

4.0 Proposed Schedule

4.1 Our team would propose the following schedule for this work; however, this could be modified to meet an alternate schedule as desired by the City. It should be noted that Facility Plans are due to the MPCA on March 1 for funding, and if the 2015 date is to be met, prompt action would be needed to expedite this schedule. Based on my understanding, the report itself may be budgeted for in 2015, so submittal for funding is not required until March 1, 2016, or another date if State funding is not pursued.

January 2015	Kick-off meeting
July 2015	Draft report
August 2015	Review report with City
Fall 2015	Finalize report
November 2015	Public hearing
Winter 2015/2016	Submit Facility Plan and funding letters no later than March 1, 2016

This schedule is most likely longer than required; however, it allows for some time to receive the preliminary effluent limit review request from the MPCA (this can take six months or more).



City of Blue Earth
September 8, 2014
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Thank you again for using Bolton & Menk, Inc. for your engineering needs. Please feel free to contact me if you have any questions or if you require any additional information.

Sincerely,

BOLTON & MENK, INC.

A handwritten signature in black ink, appearing to read 'Kristopher J. Swanson', written over a horizontal line.

Kristopher J. Swanson, P.E.
Principal Engineer

KJS:bj

cc: Wes Brown, Bolton & Menk, Inc.
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