

1 **MINUTES OF THE REGULAR MEETING OF**
2 **THE MINNEHAHA CREEK WATERSHED DISTRICT**
3 **BOARD OF MANAGERS**

4
5 **March 12, 2020**
6

7 **CALL TO ORDER**

8 The regular meeting of the Minnehaha Creek Watershed District Board of Managers was called
9 to order by President Sherry White at 7:02 p.m. on March 12, 2020, at the District offices, 15320
10 Minnetonka Boulevard, Minnetonka, Minnesota.
11

12 **MANAGERS PRESENT**

13 Sherry White, Richard Miller, Arun Hejmadi, Kurt Rogness.
14

15 **MANAGERS ABSENT**

16 William Olson, Jessica Loftus, Eugene Maxwell.
17

18 **DISTRICT STAFF AND CONSULTANTS PRESENT**

19 James Wisker, Administrator; Brian Beck, Research & Monitoring Program Manager; Tiffany
20 Schaufler, Project and Land Manager; Cole Thompson, Permitting Technician; Chris Meehan,
21 Consulting Engineer; Michael Welch, Counsel.
22

23 **MATTERS FROM THE FLOOR**

24 None.
25

26 **APPROVAL OF AGENDA**

27 Manager White added a discussion item on planning for the COVID-19 virus. ***Manager Rogness***
28 ***moved and Manager Miller seconded approval of the agenda. Upon vote, the motion carried 4-***
29 ***0.*** James Wisker stated that he would like Brian Beck to present a report to the managers on
30 MCWD's real-time sensor network update that was on the Operations and Programs Committee
31 agenda tonight. The managers concurred adding the item to the agenda.
32

33 **CONSENT AGENDA**

34 ***Manager Miller moved and Manager Hejmadi seconded approval of the consent agenda,***
35 ***consisting of:***
36

37 ***Resolution 20-019, Approval to Continue Joint Funding Agreement with the USGS for***
38 ***Gauging Stations and Technical Assistance in 2020 and 2021:***
39

40 ***NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek***
41 ***Watershed District Board of Managers authorizes the Administrator to extend a***
42 ***joint funding agreement with the USGS for services from October 1, 2019***
43 ***through September 30, 2021, with a total cost not to exceed \$49,444 annually;***

44
45 ***Resolution 20-020, Authorization to Execute a Grant Agreement for Wassermann Internal***
46 ***Load Management Project:***

47
48 ***NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek***
49 ***Watershed District Board of Managers authorizes the District Administrator to***
50 ***execute a grant agreement with the Board of Water and Soil Resources for the***
51 ***Wassermann internal Load Management project; and***

52
53 ***the minutes of the February 27, 2020, meeting of the managers. Upon vote, the motion carried***
54 ***4-0.***

55
56 **REGULAR AGENDA**

57 **Board, Committee and Task Force Reports**

58 President White stated that she has no president's report and that the Operations and
59 Programs Committee did not meet this evening so there's no OPC report. Manager Miller
60 reported from the Citizens Advisory Committee, noting that the group heard from
61 Minnesota State Climatologist Kenny Blumenthal. The CAC had an extensive and
62 terribly interesting discussion. He encouraged staff to make the recording that was made
63 available. He said that Mr. Blumenthal stuck to facts, and a number of those were
64 interesting, namely, that the warming trend is not so much indicated by hot days but by
65 warmer nights. Mr. Wisker said that the recording will be sent to CAC members and
66 managers, but is not going to be uploaded to the district's website yet.

67
68 **PERMITS REQUIRING A VARIANCE OR DISCUSSION**

69 **Permit 20-035: City of Minnetonka, 14550 Minnetonka Boulevard**

70 Cole Thompson presented background on and staff's analysis of an application from the City of
71 Minnetonka for a permit for work to upgrade the city's fire and police station with an addition.
72 He stated that the project site is 1.5 miles southeast of the Gray's Bay dam, and that MCWD has
73 an agreement with the city whereby the city exercises sole regulatory authority for stormwater
74 management and erosion control, leaving the district only to implement its Wetland Protection
75 Rule. He said the reconstruction of impervious surface would trigger the MCWD stormwater
76 requirements, therefore the wetland-buffer requirements are triggered. He said both wetlands
77 implicated are rated Manage 2, which requires a 30-foot buffer. He described two different pinch
78 points on the site where the city cannot provide the required minimum buffer width of 15 feet,
79 leaving the project short a total in four areas from the applicable minimum buffer width. He
80 stated that the city is partially making up for this shortfall by creating 16,609 square feet of total
81 buffer area in other parts of the project beyond what is required under the rule and providing
82 stormwater management for 0.11 acres that would otherwise not be required. He said a condition
83 of the permit is an update of the programmatic maintenance framework in place between the city
84 and district with the new site plan buffer areas. ***Manager Miller moved and Manager Rogness***
85 ***seconded approval of the variance from the district's minimum buffer width.*** Manager Miller

86 stated that the project as presented seems straightforward but he wonders about the equation
87 whereby the district can measure an effort to make up from a shortfall in buffer. Chris Meehan
88 answered, noting that there really is no formula for off-setting buffer ecological services, but
89 additional water-quality performance is a reasonable measure.

90

91 President White acknowledged Will Manchester from the City of Minnetonka, who was in
92 attendance and noted that he was glad to answer any questions but otherwise had no additional
93 information to provide. *Upon vote, the motion carried 4-0. Manager Miller moved and*
94 *Manager Rogness seconded approval of permit 20-035. Upon vote, the motion carried 4-0.*

95

96 The managers recognized Bob Cutshall, a manager at the Nine Mile Creek Watershed District in
97 attendance. Manager Cutshall said he was visiting just to see how another district conducts its
98 meeting. The managers welcomed Mr. Cutshall.

99

100 **BOARD DISCUSSION ITEMS**

101 **Real-Time Sensor Network Update**

102 Brian Beck and Tiffany Schaufler came forward to provide the managers with a presentation on
103 updates under way to MCWD's real-time water-level sensor network. Mr. Beck stated that the
104 idea of the network is to measure water volumes going into and coming out of Lake Minnetonka
105 to determine where flow will go once it leaves Gray's Bay dam, then to assess potential impacts.
106 He stated that the real-time data MCWD has are very useful, but the question staff is turning to is
107 how to be predictive. He said that the first step in this effort is installation of additional water-
108 level sensors. More broadly, the goal of the update is – using what flexibility MCWD has under
109 the operating agreement for the dam – to squeeze every inch of available capacity in the lake to
110 minimize flooding downstream. Mr. Wisker added that the upgrade will allow better
111 communications with watershed cities so they can deploy resources such as emergency resources
112 such as sand bags most efficiently and effectively.

113

114 In response to a question from Manager Miller, Mr. Beck stated that watershed cities will soon
115 have access to the data collected but the predictive information is not yet available. Mr. Wisker
116 added that long-term, the idea is to determine vulnerable areas and work on improving climate
117 resilience. He stated that also the district will be able to identify best possible locations for
118 projects not only for flood mitigation but water-quality improvement as well.

119

120 In response to a question from Manager Miller, Ms. Schaufler added that right now MCWD can
121 only make predictions where it is currently collecting data on water levels. But the upgrade will
122 expand from 20 data points to 52,000, collected every two weeks. Mr. Wisker added that right
123 now staff are proving out the system for dam operation, and from there will be moving toward
124 being able to be more predictive for other areas in the watershed. He stated that critical to this is
125 the capacity in the dam operating manual that allows MCWD to respond to the data it collects in
126 combination with weather forecasts. Mr. Beck stated that critical to the increased capacity is a
127 machine-learning advancements that have been made public by Google. In response, Manager
128 Hejmadi asked whether there are other machine-learning algorithms available. Mr. Beck stated

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129 that there are other algorithms available but almost all of them are based on the same
130 mathematical approach. In response to further questions from Manager Hejmadi, Mr. Beck stated
131 that the difficulty with other approaches to optimizing the district's data to make predictions is
132 that physical models, such as the district's XP-SWMM model, are very slow and cannot quickly
133 complete calculations.

134
135 Mr. Beck continued, noting that the second-most important element of the present work is
136 improvement of MCWD's physical base model. He stated that the district's hydraulics model
137 (XP-SWMM) was built in 2003, and such physics-based modeling software has improved
138 dramatically. He stated that modern physics based model software is capable of much faster
139 calculations, which allow more detailed assessment of areas for flooding inundation.

140
141 Mr. Wisker added that the State of Minnesota has a great deal of data that would help make the
142 system, when optimized, readily transferrable to other watersheds. He said this replicability is
143 critical. In response to a question from Manager Miller, Mr. Beck noted that a high percentage of
144 the runoff in the watershed goes into Minnehaha Creek, but he cannot say precisely how much.
145 Mr. Wisker said staff are meeting with technical advisors tomorrow to review and critique
146 MCWD's approach to optimizing the sensor network. In response to a further question from
147 Manager Hejmadi, Mr. Beck stated that while traditionally the high-powered computing
148 available at university research labs would be important to such work, a shift of the operation of
149 the underlying software from computer processing units to graphics processing units means that
150 staff can run the software on relatively inexpensive workstation computers. Staff and the
151 engineer noted that similar predictive work is under way at the Iowa Flood Forecasting Center
152 and in Boston, but much of the work elsewhere is focused on ocean levels. The managers
153 expressed their excitement about this work and encouraged Mr. Beck and Ms. Schaufler to carry
154 on.

155
156 Mr. Wisker stated that he is pursuing options for funding the work.

157
158 Manager Miller noted that at the second meeting in April he would like the managers to consider
159 a resolution on 325 Blake Road he provided tonight that directs staff to hold off on pursuit of
160 redevelopment of the property until progress can be made to ensure the partnership with the city
161 is productive.

162
163 Administrator's Report

164 Mr. Wisker stated that the sole focus of his report this evening is planning and preparation for
165 maintaining operations during the COVID-19 pandemic. He said plans are coming together and
166 the office is moving work to take place remotely. He said a third of the staff will be working at
167 home or otherwise off-site immediately, and that in the next few days staff will be testing web-
168 based platforms and other remote-meeting options to minimize contact to help slow the spread of
169 the disease. For meetings, he stated that MCWD will be canceling and limiting activities, and
170 that he will be meeting with west metro city managers to talk about best practices. Michael
171 Welch added that under the circumstances of pandemic, state law allows MCWD to conduct

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172 board meetings by telephone or video conferencing, which likely will be necessary in coming
173 weeks.

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175 **Adjournment**

176 There being no further business, the meeting of the Board of Managers adjourned at 8:30 p.m.

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178 Respectfully submitted,

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180

181

182 Kurt Rogness, Secretary

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DRAFT