

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

February 7, 2008

CALL TO ORDER

The regular meeting of the Minnehaha Creek Watershed District Board of Managers was called to order by President James Calkins at 7:10 p.m. at the District office, 18202 Minnetonka Boulevard, Deephaven, Minnesota.

MANAGERS PRESENT

James Calkins, Pamela Blixt, Lee Keeley, Jeffrey Casale, Mike Klingelhutz, Brian Shekleton.

MANAGERS ABSENT

Richard Miller.

OTHERS PRESENT

Michael Wyatt, District Environmental Planner; Steve Christopher, District Technician; Renae Clark, District Projects Manager; Udai Singh, District Water Quality Specialist; Michael Panzer, District Consulting Engineer; Michael Welch, Assistant District Counsel.

MATTERS FROM THE FLOOR

None.

APPROVAL OF AGENDA

Mr. Wyatt requested the addition of Item 12.4, the 2008 Minnesota Association of Watershed Districts Legislative Breakfast and Day at the Capitol. Manager Shekleton noted that he will present Item 11.3, Resolution 08-008. *Manager Calkins moved, seconded by Manager Keeley, to approve the Agenda as amended. Upon vote, the motion carried.*

CONSENT AGENDA

Manager Klingelhutz moved, seconded by Manager Calkins, to approve the Consent Agenda, consisting of the minutes of the January 3, 2008, meeting of the Board of Managers. Upon vote, the motion carried.

REGULAR AGENDA

Technology Committee Report

Manager Shekleton gave the report, describing the committee's discussion of the need for a detailed analysis of District technical operations to identify areas where greater efficiency could be achieved. He said the committee has reviewed the proposal from PRC Consulting for such an analysis and later in the agenda will recommend that the District accept the proposal and enter a contract.

Board Action on Violations Committee Recommendations:

John Eiden; 330 Big Island, Orono #08-018

The Board considered an after-the-fact Rule F Shoreline and Streambank Improvement application for 330 Big Island, Orono, and associated violation of District Rules. Manager Calkins reviewed the information presented and findings of the proceeding before the Violations Committee held prior to the Board meeting. Manager Calkins stated that staff received indications of a violation on January 24, 2008, and conducted an initial inspection of riprap installed on approximately 70 feet of shoreline on January 25, 2008. Manager Calkins stated that staff found the riprap had been placed in violation of both the District Rule F requirement that the finished slope of a riprap shoreline may not be steeper than 3:1, horizontal to vertical, under normal conditions, and may not be steeper than 2:1 for steeper slopes. Manager Calkins stated that staff indicated that the riprap would have to be analyzed under the requirements for a retaining wall, and the applicant had not demonstrated that there is no adequate stabilization alternative or submitted a variance application, as required to permit a retaining wall under the District Rules.

Manager Calkins stated that on January 28, 2008, Mr. John Eiden, the property owner and applicant, met with District staff Steve Christopher, James Wisker and Natalie White to discuss options for resolving the violation. Mr. Eiden submitted a Rule F application the same day. Manager Calkins reported that Mr. Eiden indicated to staff that conditions at the property did not allow a 3:1 slope and that such a slope would not offer sufficient lakeshore protection. Mr. Eiden chose to meet with the District Violations Committee to request approval of the project as constructed.

Manager Calkins said the Violations Committee found that that the riprap did not merit a variance under the rules, but noted Mr. Panzer's observation that Mr. Eiden's riprap had been placed on the ice, which may allow it to settle into a slope of less than 2:1 in the spring. The committee expressed willingness to defer action on the matter to see if the riprap settles into a complying slope.

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Mr. Eiden presented to the Board, describing the history of his property and his maintenance of the shoreline since he bought the property in 1996. He noted that he spends several days each year pulling the existing red rock riprap out of the water and throwing it back onto the shore to maintain the stability of the shoreline. He brought the boulders for the new riprap wall to the site this winter, and was informed by a neighbor that he needed a permit and should get the boulders off the ice. Mr. Eiden stated that he placed the boulders on six inches of ice with snow behind them in the location where staff had inspected them in late January. Mr. Eiden said that his intention was to let the boulders settle back into place as the snow melted, then in the spring set them tight and fill in behind and around them. He argued that the project was necessary because of the large boats that travel at high speeds just off shore, creating huge wakes.

Manager Calkins stated that he understands Mr. Eiden's desire to stabilize his shoreline in a cost-effective way, but he added that the District has shoreline protection rule and regulates the slope of riprap installations. He said that Mr. Eiden is accepting the risk that the District will find him in violation. Mr. Eiden indicated that he understands the situation and is planning to move the rock into such a configuration as to bring them into compliance with the District Rule.

Manager Shekleton asked whether Mr. Eiden could be advised as to how to restructure his shoreline to comply with District Rules. Mr. Eiden indicated that he understands how to bring it into compliance himself. He said the membrane under the existing rocks has been in place for 10 years and is stable.

In response to a question from Manager Shekleton, Mr. Panzer stated that the face of the wall is very close to 2:1, which could allow staff to issue a permit when the rocks settle.

Manager Casale confirmed that under the District Rules the applicant must submit the documents in the compliance-order recommendation from staff in the materials before the Board; namely, an 11 x 17 site plan/survey certified by a registered engineer or surveyor, a cross section detailing the proposed riprap, a surety in the form of a letter of credit or performance bond in the amount of \$5,000 or \$100 per lineal foot, and a detailed erosion control and site stabilization plan. Mr. Christopher confirmed that these elements of the application are missing, and added that a variance application has not been submitted, therefore the District has not received a complete application upon which it must act. In response to questions from the Managers about the deadline for acting on an application, Mr. Welch indicated that once Mr. Eiden's application is complete, the District would have 60 days under Section 15.99 to act on a permit, though the District may unilaterally extend the deadline by 60 days, though an applicant can agree to an extension beyond that. Manager Calkins asked Mr. Eiden if he would be willing to extend the review period to see if his riprap settles into a complying slope. Mr. Eiden indicated he is willing to go along with anything that will work for the District. ***Manager Keeley moved, seconded by Manager Shekleton, to defer action on the violation and***

allow Mr. Eiden to complete his application. Upon vote, the motion carried. Manager Klingelhutz noted that Mr. Eiden should appreciate the patience that the Board has shown him with his noncomplying project. Mr. Eiden said he appreciated the Board's time.

Manager Calkins said he wants any further determination on a permit for the project to come before the Board for review.

Award of Big Island Bid for Riprap

Ms. Clark presented the Request for Board Action, a resolution to approve a contract for the placement of 2,220 feet of riprap as part of the Big Island Restoration Project. Ms. Clark reviewed the history of the project, and said that the District had solicited bids for the additional riprap placement in early January. She said the District received one bid, from Jim Smith and Concept Landscaping, that offered two materials alternatives. Ms. Clark directed the Board's attention to the two alternate bids, one using quarried granite riprap at \$187,000 and the other using quarried granite with a fieldstone riprap overlay at \$176,000. Ms. Clark explained that the fieldstone provided a flatter surface above the waterline. At Manager Casale's request, Ms. Clark handed out the figures that accompanied the bid, showing the two different options. Manager Blixt asked why there was a difference in the price between the two materials. Mr. Smith explained that the fieldstone can be placed more quickly. ***Manager Blixt moved, seconded by Manager Keeley, to approve Resolution 08-009, alternate bid number two for the quarried granite with fieldstone overlay.***

Manager Casale asked whether the project was outside of scope of the District's capital improvement project. Ms. Clark said staff had explained at previous meetings that the proposed riprap is part of an expansion of the Big Island Restoration Project under the design-build approach. Ms. Clark stated that the process involves some uncertainties as the design is modified along the way, and that costs and approvals from the City of Orono affect how the project develops. She acknowledged that the approach is more challenging for the Board.

Manager Casale expressed concern about the project setting a tone for future District projects, and wondered whether the installation can be live staked or otherwise naturalized. Mr. Panzer said such options remained viable. In response to Manager Klingelhutz's comparison of the price bid here with earlier riprap work done on the project at \$65 per linear foot, Ms. Clark noted that Minnetonka Portable Dredging, which did the earlier work, did not provide a bid on this project. Mr. Smith said that the higher price has to do with the greater degree of labor intensity in the design of the project. Mr. Panzer added that the specs on this round are different. Mr. Smith handed out a picture of the standard fieldstone riprap installation, and noted that his firm would also bury 24-inch toe boulders as part of the installation. Mr. Panzer confirmed with Mr. Smith that the bid price included burying the 24-inch toe boulder.

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Manager Calkins stated that the illustration provided by Mr. Smith was not the kind of riprap installation he thinks the District wants to promote, and the Board needs to know what the plan is to cover the riprap rather than having a flat, smooth surface exposed. The Managers discussed the presumptions going into the bidding of the project, noting that some of them understood that the intent was to achieve a more natural look. Ms. Clark said that the proposed cross-section that the Board had viewed at a previous meeting (vertically reinforced soil system or VRSS) was extremely expensive, and she acknowledged that the project as proposed does not present a naturalized look.

The Managers further discussed the condition of the Big Island bluffs and the urgency of the need to stabilize the area. In response to a question from Manager Calkins, Mr. Panzer acknowledged that he had indicated at a prior meeting that the area was not likely to deteriorate dramatically in the near future if no action were taken.

In response to Manager Shekleton's question about the partnership with Orono, Mr. Wyatt explained that the project was proceeding the way it was for several reasons: one, expediency, to stabilize the area as soon as possible. Two, the project as proposed is in line with the City of Orono's expectations. Third, he noted that the overall cost of the project; the original bid was for \$100,000 and has now been roughly doubled. He stated that the VRSS application discussed costs roughly \$1,000 per linear foot, so that installation in this location would cost more than \$2 million. He stated that the project can be completed more cost effectively, but there are associated compromises. Mr. Wyatt stated that he believes the area will get worse if not stabilized now and that the design is one that the District can live with and build on, and the project as proposed preserves the relationship with the City of Orono.

Manager Keeley noted the importance of the Big Island Restoration Project, but said she cannot consider putting \$2 million into the shoreline stabilization. Mr. Smith stated that his firm can install a more rustic looking, large rock for what he called "the Lake Superior look," without a change in cost. Manager Calkins said he agreed with Manager Keeley, and added that the installation should be *really* rustic and that vegetation such as woodbine and shrubs should be considered to naturalize the look. He suggested that such direction be added to the motion. Ms. Clark stated that for the naturalizing work beyond the rustic look proposed by Mr. Smith, the resolution would have to be amended. ***Manager Blixt amended her motion to include the addition of a resolution stating, "Be it resolved that the contractor shall install the riprap in a manner that achieves a rustic, naturalistic appearance, and the Board of Managers authorizes staff to investigate and report on options and costs for further naturalizing the riprap and bluff." Manager Keeley accepted the amendment. Upon vote, the motion carried, 5-1 (Manager Klingelhut voting against).***

In response to Manager Calkins, Mr. Smith confirmed that the more rustic look is within the scope of work as bid. Manager Klingelhutz stated that he believes too much has been added to the wetland restoration project on Big Island.

Contract With PRCC Consulting to Complete Process Flow Chart

Manager Shekelton presented the proposal to the Board. He stated that the analysis proposed will be like analyzing an engine: When the check engine light goes on, a mechanic can determine what exactly is going on inside the engine, beyond simply noting that something is wrong. He said the result will be a comprehensive analysis of District workflows.

Manager Casale added that the proposal was for complete process flow analysis, documenting interactions both within the District operation and with outside entities, identifying bottlenecks and synergies as well. He stated that the report will allow the District to improve its performance in areas of, say, permitting times. Manager Klingelhutz asked whether this project is an expansion of analysis done several months ago by the same firm. Manager Casale explained that the prior analysis was more of a big picture overview of technology issues. He noted the process completed by staff members James Wisker and Nat Kale, wherein they refined and improved their processes, and said that that same process will be undertaken for the entire organization. He stated that this work is not redundant to what had been done for the District before. ***Manager Shekelton moved, seconded by Manager Casale, to authorize the Administrator to enter a contract for an amount up to \$25,000 for completion of the process work flow analysis by PRC Consulting Inc.***

In reaction to a question from Manager Keeley, the Board further discussed the necessity of the additional analysis. Manager Casale argued that the proposed professional analysis would be more efficient and cost effective than a staff-conducted process. Manager Calkins asked Mr. Panzer if his organization would consider undertaking such a project and whether he believes the proposal before the Board is a reasonable cost for the work proposed. Mr. Panzer cited similar past efforts undertaken by Wenck and said that the proposal seemed to present a fair price for the work proposed.

Upon vote, the motion carried.

DISCUSSION ITEMS

Rulemaking Update

Mr. Wyatt requested that the Rulemaking Update be tabled. Manager Casale mentioned a second February Rulemaking Task Force meeting on Tuesday, February 26, and encouraged managers to attend.

Review of 30 Percent Plans for the Minnehaha Creek Gorge

Mr. Wyatt presented the 30 percent design for Minnehaha Gorge, focusing on the Veteran's Home property. He stated that Mr. Panzer will walk through the basic components of the design and noted that Mr. Panzer completed the design roughly a month ahead of schedule. Mr. Wyatt added that in a recent meeting with District staff, representatives from the Minneapolis Veteran's Home and the Minneapolis Park and Recreation Board had expressed approval of the design so far. He stated that the principal issue to be addressed is the erosion caused by runoff coming off the bluff on which the Veteran's Home is located because it is so much higher than the creek.

Mr. Panzer presented the design, which provides a layer of information beyond prior sketches reviewed by the Board. He added that the review with the Veteran's Home and Park Board representatives had been conducted to ensure that the project was on the right track before the District spent money on more detailed designs.

Mr. Panzer passed out large-format illustrations and showed animated Powerpoint slides to show designs organized around the six locations where discharge comes off the Veteran's Home property. Mr. Panzer pointed out that the overall project goal is to reduce the volume of water coming off the bluff by 70 percent to reduce phosphorus loading to the creek by 90 percent and sediment to almost zero. Infiltration galleries and various treatment trains will be used to reduce runoff volume. He added that since existing information is questionable, utility locations in the area will have to be verified in subsequent development of the designs.

Mr. Panzer focused in turn on plans for each discharge point, explaining how stormwater management features – rain gardens, infiltration galleries (some with porous pavers over the top), reconstructed gabions and other structures, vertically reinforced soil systems, bioswales and rock vanes – would be installed to achieve the project goals. He fielded questions from the Managers, explaining that the road in the north parking area will have to be removed and the District is working with the MPRB to preserve as many of the oak trees in the area as possible. He added that the District also was working with the MPRB to ensure that the parking area works in concert with the stormwater plan. In response to a question from Manager Blixt, Mr. Panzer and Mr. Wyatt noted that the location of a bus stop used by Veteran's Home employees had not been determined yet. Mr. Panzer explained that the plans for the area around the power plant call for the replacement of part of an access road with a bioswale that will discharge to the creek. In response to a question from Manager Casale, Mr. Wyatt noted that the fire department will allow removal of the road but that the design will have to provide for a new turnaround.

Manager Blixt confirmed with Mr. Panzer that the rain gardens proposed for the Building 16 discharge area were not in the existing wetlands. Mr. Panzer explained that there

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would be two rock vanes constructed in the creek in this area, and in response to a question from Manager Calkins, explained how rock vanes reduce erosion and scour. In response to Manager Keeley, Mr. Panzer explained that the project would not significantly reduce flow to the creek, but rather restore a more natural hydrology.

Mr. Panzer said a detailed cost estimate had yet to be developed for construction of the project, but roughly \$1.8 million was expected in the feasibility study. Mr. Wyatt added that the Veteran's Home expenditure is set at not-to-exceed \$345,000. He added that the District has levied \$1.1 to \$1.2 million, for a project total of \$1.5 to 1.6 million. He added that part of the funding is bonding money that requires a local match so the District will be leveraging any additional funds and in-kind resources it can acquire. He stated that additional partners would allow expansion of the project. It was noted that it will be important to get the MPRB to shoulder the cost of the new road in the area.

In response to a question from Manager Casale, Mr. Wyatt explained that a long-term maintenance agreement will be executed with the Veteran's Home as part of the project. Mr. Panzer explained that maintenance consisted mostly of keeping the sediment traps clean and conducting vegetation management. He stated that maintenance down in the gorge area itself has not been discussed yet. Manager Calkins asked whether the annual cost of maintenance had been determined yet. Mr. Wyatt explained that the Department of Administration, which is running the Veteran's Home, would contract with an outside firm to provide maintenance.

Mr. Wyatt noted that the next step in the project would be to develop the 60 percent design, for which the District will survey storm sewer elevations and test the infiltration capacity in areas where infiltration galleries are to be located. In response to the Managers' positive feedback on the design, Mr. Wyatt indicated that though there are problems on the site and concern about maintenance, the Veteran's Home staff realizes that the District is solving some major problems for them. Mr. Wyatt said the 60 percent design will be the last chance to make significant changes because the 100 percent design is the one that will be let out for bid.

Manager Blixt clarified that staff had been working with MPRB staff, not the Board itself, and urged District staff to be clear in that regard. Acknowledging the point, Mr. Wyatt added that the MPRB will have to be a party to the agreement for the project, since the project involves crossing MPRB property. He noted that so far staff has been quite supportive, as has been staff at the Department of Administration at the State. The Managers again expressed their approval of the design.

Hydro Data Report

Dr. Singh presented a summary of the District staff's hydro data work and an overview of accomplishments for the year. He noted that the annual report hydro data is not yet

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complete, but that he will be offering highlights. He recognized staff involved in the work, particularly Yvette Christianson and Jason Carlson, who contributed greatly to the District's monitoring and survey work during the year.

Dr. Singh reviewed the District's stream monitoring, noting that 11 sites on the creek as well as 31 other sites throughout the District were monitored for flow and water quality. He said that addition of the Flow Tracker to the District's arsenal had been a huge help in the data-collection process. Water quality samples collected were analyzed for total phosphorus, soluble reduced phosphorus, total suspended solids and total nitrogen, as well as *e. coli* and chlorides from select locations. He said the District collected continuous water level data at four locations on the creek and five in the upper watershed. In response to Manager Blixt, Dr. Singh said that the District still uses the United States Geological Survey water level data from Lake Hiawatha, and that the gauging station at 30th Avenue is a Wetland Outlet Monitoring Program station. He noted that the District does not use the data in its report but it does use the information.

Dr. Singh stated that the District has eight precipitation-gauging stations and two citizen precipitation recorders. He said the District needs two more citizens – one in the Chain of Lakes and another in the Powderhorn area of Minneapolis. The Managers discussed possibilities for establishing citizen gauging in these areas, noting that the District pays citizens \$120 for the work.

Dr. Singh reported that the District and partners monitored water quality on 36 lakes and maintained 26 sampling locations on Lake Minnetonka alone. He mentioned one location in the Metropolitan Council's Citizen Assisted Monitoring Program, and the MPRB's monitoring of nine lakes in Minneapolis. Fourteen limited-access lakes were monitored as well. He said that dissolved oxygen, temperature, pH, and conductivity are monitored for Lake Minnetonka, and analysis is conducted of total phosphorus, soluble reduced phosphorus, total dissolved phosphorus, total nitrogen, total dissolved nitrogen, NO₃/NO₂, NH₄ and chlorophyll-a. Secchi disc measurements are taken as well. Eleven upper watershed lakes and the limited-access lakes were monitored for somewhat fewer parameters. Samples for phytoplankton and zooplankton analysis were also collected monthly for each of the 11 upper watershed lakes and Halstead, Jennings and Stubbs bays on Lake Minnetonka.

Dr Singh noted that while the report is still on the way, he is able to share the grades compiled for the lakes. He said that lake grade trends are a particular point of interest for the media, which is driving development of protocol to address lake water-quality trends. He stated that there is no overall trend at this point, but rather generally minor changes.

Dr. Singh highlighted other projects such as the District's telemetry work at Gray's Bay Dam, allowing real time data to appear on the District web site, and the ongoing lake bathymetry project with Shane Missahgi from the University of Minnesota, under which

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three-dimensional mapping of 30 to 40 percent of Lake Minnetonka had been completed so far. Dr. Singh discussed the ongoing stopwatch-and-bucket flow sampling at Camp Coldwater Spring. He also noted District staff's management of the Gleason Lake Water Quality Improvement Project's fish and microinvertebrate index of biological integrity component. He cited the move of the precipitation gauge from Long Lake City Hall to the Public Works building, and the continuing diatom study on several lakes.

He discussed the District's continuing partnership with the U.S. Army Corps of Engineers to develop greater familiarity with the XP SWMM model. He stated that Hennepin County had a new River Watch staff member in place, Mary Karius, who is working with eight schools. Dr. Singh reviewed the training that staff had undergone during the course of the year, and the 2008 work plans and goals. Highlights of the latter included formatting the hydro data report to make it easier to use on the web, conducting a meeting on water quality monitoring and reporting methodology for calculating total loads, establishing a relationship with a new lab offering quicker turn around and availability on weekends, ongoing work on the bathymetry project, revision of the water quality manual, and the establishment of a weather station. He stated that the hydro data report will be available in a month or month in a half.

The Board thanked Dr. Singh for his report and noted how busy he and his staff had been in the past year.

Minnesota Association of Watershed Districts Day at the Capitol

Mr. Wyatt requested a Manager or two to attend the MAWD Legislative Breakfast and Day at the Capitol on March 13. Manager Calkins said he would attend the breakfast, and Manager Blixt said she would attend the dinner.

ADJOURNMENT

There being no further business, the regular meeting of the Minnehaha Creek Watershed District Board of Managers was adjourned at 10:50 p.m.

Respectfully submitted,

Lee Keeley, Secretary