



# RICE CREEK WATERSHED DISTRICT

4325 Pheasant Ridge Dr. NE #611 • Blaine, MN 55449-4539  
Phone: 763-398-3070 • Fax: 763-398-3088  
www.ricecreek.org

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## RCWD BOARD OF MANAGERS AGENDA

Wednesday, January 12, 2011, 9 a.m.

Shoreview City Hall Council Chambers  
4600 North Victoria Street, Shoreview, Minnesota

### Agenda

- 1
- 2 **CALL TO ORDER**
- 3 **ROLL CALL**
- 4 **Present:** President Patricia Preiner, 2<sup>nd</sup> Vice President John Waller, Treasurer Rick Mastell,
- 5 Secretary Harley Ogata
- 6 **Absent:** 1<sup>st</sup> Vice President Barbara Haake (with prior notice)
- 7 **Staff Present:** Administrator Phil Belfiori, Permit Coordinator/Wetland Specialist Nick Tomczik,
- 8 Office Manager Theresa Stasica, District Public Drainage Inspector Tom Schmidt
- 9 **Consultants:** District Engineer Mark Deutschman from Houston Engineering, Inc. (HEI); District
- 10 Attorney from Smith Partners
- 11 **Visitors:**
- 12 **SETTING OF THE AGENDA**
- 13 **APPROVAL OF NOVEMBER 29, 2010 WORKSHOP, DECEMBER 6, 2010**
- 14 **WORKSHOP; DECEMBER 8, 2010 REGULAR BOARD MINUTES; DECEMBER 27,**
- 15 **2010 SPECIAL BOARD MEETING MINUTES**
- 16

17 **OPEN MIKE - LIMIT 12 MINUTES**

18 *Any RCWD resident may address the Board in his or her individual capacity, for up to three minutes, on any matter not on*  
19 *the agenda. Speakers are requested to come to the podium, state their name and address for the record. Additional*  
20 *comments may be solicited and accepted in writing. Generally, the Board of Managers will not take official action on items*  
21 *discussed at this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on an*  
22 *upcoming agenda.*

23 **ITEMS REQUIRING BOARD ACTION**

- 24 1. Consider City of Willernie Local Stormwater Management Plan Approval
- 25 2. Consider Permit Amendment 06-098 Lake Johanna Woods
- 26 3. Consider Potential Lange Property Acquisition
- 27 4. Consider Retention of Engineering services pool
- 28 5. Consider Task Order Approval for District-wide Modeling Phase III (final phase) of District-
- 29 wide Modeling Contract
- 30 6. Consider 2011 RCWD Board meeting/workshop calendar
- 31 7. Consider Water Quality BMP Cost-Share Applications
- 32 a. Gena & Kyle Larson – Lakeshore Restoration
- 33 b. Pamela Deters – Lakeshore Restoration
- 34 8. Consider Check Register dated 1/12/2011, in the amount of \$107,545.74 prepared by HLB
- 35 Tautges Redpath

36 **ITEMS FOR DISCUSSION AND INFORMATION**

- 37 1. District Wide Modeling Project Update
- 38 2. Manager’s Update

39 **CLOSED EXECUTIVE SESSION: JD2 DNR/MIRON LITIGATION**

40 **ADJOURNMENT**

**APPROVAL OF  
NOVEMBER 29, 2010 WORKSHOP,  
DECEMBER 6, 2010 WORKSHOP;  
DECEMBER 8, 2010 REGULAR BOARD  
MINUTES;  
DECEMBER 27, 2010 SPECIAL BOARD  
MEETING MINUTES**

# DRAFT

## RCWD BOARD OF MANAGERS WORKSHOP

Monday, November 29, 2010

Rice Creek Watershed District  
4325 Pheasant Ridge Drive NE Suite 611, Blaine, Minnesota

1 The Board convened the meeting at 3:30 p.m.

2 Attendance: –Board members, Patricia Preiner, Harley Ogata, Barbara Haake, and Rick Mastell.

3 Absent: John Waller

4 Others: Administrator Phil Belfiori, District Drainage Inspector Tom Schmidt, Office Manager Theresa  
5 Stasica, District Engineer Mark Deutschman, Engineer Brent Johnson, District Counsel Louis Smith,  
6 District Drainage Attorney John Kolb, Fran and Mary Ann Miron.

7 Proposed Removal or Modification of Washington County Judicial Ditch 2 Sheetpile Weir

8 Administrator Phil Belfiori provided an Introduction and overview of goals for workshop and stated that  
9 this workshop is a Study session to explore technical and legal issues and options and that no action will be  
10 taken today.

11  
12 District Engineer Mark Deutschman and Engineer Brent Johnson presented a summary of the technical  
13 comment responses from the hearing record, an overview of draft Plans and Specs for Removal and  
14 Modification of the temporary weir, input on the probable cost from contractors, , the draft Engineers  
15 Opinion of Probable Cost, the probable Work schedule, and information related to variables in timetable  
16 that might affect the duration and cost of the work as identified in “Request of quotes and specification for  
17 Rice Lake Temporary Weir Project” dated November 26, 2010 by Houston Engineering.

18  
19 District Counsel Louis Smith and District Drainage Attorney John Kolb presented permitting requirements  
20 for the proposed removal or modification of Washington County Judicial Ditch 2 sheetpile weir including  
21 discussion related to the Army Corps of Engineers, DNR Public Waters, MPCA and City of Hugo. Legal  
22 counsel presented an overview of RCWD goals and options related to the findings, conclusions and order  
23 to remove/modify the weir.

24  
25 The Board commenced the closed executive session to discuss the JD2 DNR/Miron litigation with legal  
26 counsel at approximately 6:30 pm. No Board action was taken.

27  
28 The Board reconvened the open session at approximately 6:50pm. Louis Smith stated he would be in  
29 contact with the Miron's attorney. The meeting was adjourned at approximately 6:55 pm.

## RCWD BOARD OF MANAGERS WORKSHOP

Monday, December 6, 2010

Rice Creek Watershed District Office  
4325 Pheasant Ridge Dr NE, Suite 611, Blaine, Minnesota

1 The Board convened the meeting at 2:30 p.m.

2 Attendance: –Board members, Patricia Preiner, Harley Ogata, Barbara Haake, John Waller and Rick Mastell.

3 Absent: None

4 Others: Administrator Phil Belfiori, District Drainage Inspector Tom Schmidt, District Engineer Mark Deutschman,  
5 District Counsel Louis Smith, District Drainage Attorney John Kolb (portion of meeting), Fran and Mary Ann Miron,  
6 Permit Coordinator Nick Tomczik (portion of meeting), Water Resource Specialist Kyle Axtell (portion of meeting).

### 7 **Items for Discussion**

#### 8 **Century Farms**

9 District Engineer Deutschman District Engineer updated the Board on the initial possible drainage alternatives for  
10 Century Farms North development area.

#### 11 **Proposed Removal or Modification of Washington County Judicial Ditch 2 Sheet pile Weir**

12 District Engineer Mark Deutschman, District Counsel Louis Smith and District Drainage Attorney John  
13 Kolb updated the Board on the draft Plans and Specs for Removal and Modification of the temporary weir,  
14 the probable cost from contractors, the draft Engineers Opinion of Probable Cost, the probable Work  
15 schedule, information related to variables in timetable that might affect the duration and cost of the work as  
16 identified in “Request of quotes and specification for Rice Lake Temporary Weir Project” dated November  
17 26, 2010 by Houston Engineering, permitting requirements for the proposed removal or modification of the  
18 sheet pile weir and RCWD goals and options related to the findings, conclusions and order to  
19 remove/modify the weir.

#### 20 **Department of Natural Resources Potential Land Acquisition Update**

21 District Drainage Attorney John Kolb and Administrator Belfiori updated the Board on the RCWD appraisals for the  
22 Houle and Lamprey Pass parcels.

#### 23 **Update on 12/1/2010 Houle Wetland Banking Technical Evaluation Panel (TEP)**

24 District Engineer Mark Deutschman and Permit Coordinator Nick Tomczik updated the Board on the recent  
25 TEP meeting on the proposed Wetland Banking application for the Houle property.

#### 26 **Anoka County Ditch 10-22-32 Cost allocation table options**

27 District Drainage Attorney John Kolb and District Engineer Deutschman updated the Board on recent landowner  
28 meetings and discussed allocation of charges.

#### 29 **Oasis Pond Update**

30 Drainage Inspector Tom Schmidt updated the Board on the Oasis Pond project.

#### 31 **Lange Property Update**

32 Administrator Belfiori and District Engineer Deutschman provided an update regarding the potential acquisition of  
33 the Lange Parcel in the City of Shoreview

34 **Final certification of 2011 Budget and Levy**

35 Administrator Belfiori provided an update to the Board on the Final certification of 2011 budget and levy that would  
36 be presented for a decision at the December 8, 2011 Board meeting.

37 **Citizen Advisory Committee membership discussion**

38 Water Resource Specialist Kyle Axtell updated the Board on the proposed advertisement for CAC membership that  
39 would be considered for action at the December 8, 2011 Board Meeting.

40 **Wetland Mitigation**

41 President Preiner updated the Board on the upcoming drainage system repair and maintenance meeting tentatively  
42 scheduled for January 10, 2011.

43 **Evaluation of 2011/2012 Solicitation of Interest Notice for Professional Services**

44 Administrator Belfiori updated the Board on the Subcommittee recommendations related to selection of Professional  
45 services firms. The Board members requested that staff move forward as identified in the subcommittee  
46 recommendations.

47 Meeting was adjourned at approximately 6:20 pm.

# DRAFT

For Consideration of Approval at the January 12, 2011 Board Meeting.  
Use these minutes only for reference until that time.

## SPECIAL MEETING OF THE RCWD BOARD OF MANAGERS

Wednesday, December 29, 2010

Rice Creek Watershed District Conference Room  
4325 Pheasant Ridge Drive NE, Suite 611, Blaine, Minnesota

### Minutes

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#### **ROLL CALL**

Present: President Patricia Preiner, 2<sup>nd</sup> Vice-Pres. John Waller, Secretary Harley Ogata, and Treasurer Rick Mastell.

Absent: 1<sup>st</sup> Vice-Pres. Barbara Haake (with prior notice)

Staff Present: Administrator Phil Belfiori, Public Drainage Inspector Tom Schmidt, Office Manager Theresa Stasica

Consultants: District Engineer Mark Deutschman, Houston Engineering, Inc. (HEI); District Attorney Louis Smith, Smith Partners; District Drainage Attorney John Kolb, Rinke Noonan

Visitors: Bryan Lueth, Perry Wagamon

#### **CALL TO ORDER**

President Preiner called the meeting to order, a quorum being present, at 3:30 p.m.

#### **SETTING OF THE AGENDA**

President Preiner asked for any additions.

District Administrator Belfiori requested adding the following 2 items under Items for Board Action:

Item 1: Consider 10 a.m. starting time for 1/10/2011 Board Workshop

Item 2: Consider potential Video Webcast

***Motion by Manager Mastell, seconded by Manager Waller, to adopt the agenda as amended. Motion carried 4-0.***

#### **ITEMS REQUIRING BOARD ACTION**

1. Consider 10 a.m. starting time for 1/10/2011 Board Workshop  
District Administrator Belfiori polled the Board on if they would like to start the workshop at 10 a.m. following the Board's meeting with government officials regarding drainage system repair and maintenance. After Board discussion the consensus was to leave the starting time at 3:30 p.m.
2. Consider potential Video Webcast  
District Administrator Belfiori stated as a follow-up on the request made by Manager Haake, staff did research of options for Web Streaming of the upcoming Board meetings. He summarized his findings. After discussion the Board by consensus agreed not to pursue web streaming of Board meetings at this time due to the cost and the lack of public interest.

# DRAFT

- 37 3. Consider Partial Payment #1 for Oasis Pond to Peterson Companies  
38 District Administrator Belfiori informed the Board that on December 16th, 2010 the District received a memo  
39 from Houston Engineering (HEI) stating that the contractor had submitted to the District a request for partial  
40 payment for work completed on the Oasis Pond Project. In its memo, HEI informed the District that the  
41 contractor has completed dredging and stockpiling activities and is in the process of hauling the dredged material  
42 to the landfill. The contractor has completed the hauling and disposal of 608 tons of sediment, which is  
43 approximately 1/3 of the project total. Also included in the request is payment for additional erosion and  
44 sediment control measures required after MPCA and DNR inspection that were approved in Change Order #1.  
45 Staff and District Engineer are recommending partial payment to Peterson Contracting Inc. for the Oasis Pond  
46 Project in the amount of \$73,229.71.  
47

48 ***Motion by Manager Mastell, seconded by Manager Ogata, to approve partial payment #1 in the amount of***  
49 ***\$73,229.71 to Peterson Contracting Inc. for the Oasis Pond Project.. Motion carried 4-0.***  
50

51 District Engineer Deutschman informed the Board that they, the District Engineer, had signed off on the work  
52 completed to this point and recommended partial payment.  
53

- 54 4. Discussion on agenda and attendee list for the January 10th drainage system repair and maintenance meeting  
55 President Preiner stated the purpose of this meeting was to discuss with legislators and stakeholders the various  
56 policies used by the RCWD as described within our Watershed Management Plan to repair their public drainage  
57 systems and the cost that could be incurred. She continued to report that District Engineer Deutschman and  
58 District Drainage Attorney Kolb will be working on a presentation which will cover these issues. Manager Mastell  
59 stated that because ditch repair has been lacking for years, ditches have formed wetlands and when the District  
60 wants to clean these ditches, the created wetlands are disturbed which would bring on the additional costs of  
61 mitigation. President Preiner asked managers to personally contact their legislators and invite them to the  
62 meeting.

- 63 5. Proposed Removal or Modification of Washington County Judicial Ditch 2 (JD2) Sheetpile Weir – Status Update  
64 District Engineer Deutschman reviewed quotes for removal/modification of the weir with the Board from BVF Inc.,  
65 Cobalt Construction, and Scandia Trucking.

66 President Preiner passed out an article title “Drama at Rice Lake Continues” from the DNR Outdoor News  
67 magazine. The Board discussed how the article was from only one point of view and that important information  
68 and history of the event were missing. Manager Ogata would look into different avenues to address the issue and  
69 report back to the Board.

- 70 6. Closed Executive Session: JD2 DNR/Miron Litigation  
71 President Preiner closed the regular meeting at 4:12 p.m. so the Board could meet with District Counsel regarding  
72 JD2 DNR/Miron litigation.  
73

74 The meeting was re-opened at 5:18 p.m.  
75

76 ***Motion by Manager Ogata, seconded by Manager Mastell, to authorize the Administrator and District***  
77 ***Engineer to discuss technical issues related to weir options with the DNR. Motion carried 3-0.***  
78

**DRAFT**

79 ***Motion by Manager Ogata, seconded by Manager Mastell, the District appeal the DNR's restoration order***  
80 ***dated December 13, 2010 through Counsel Tom Scott. Motion carried 3-0.***

81  
82 ***Motion by Manager Mastell, seconded by Manager Preiner, to accept Scandia Trucking's quote for removal or***  
83 ***modification of the weir. Motion carried 3-0.***

84  
85 **ADJOURNMENT**

86 ***Motion by Manager Mastell, seconded by Manager Preiner, to adjourn the meeting at 5:20 p.m. Motion carried 4-0.***

# DRAFT

For Consideration of Approval at the January 12, 2010 Board Meeting.  
Use these minutes only for reference until that time.

## REGULAR MEETING OF THE RCWD BOARD OF MANAGERS

Wednesday, December 8, 2010

Shoreview City Hall Council Chambers  
4600 North Victoria Street, Shoreview, Minnesota

### Minutes

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#### **ROLL CALL**

Present: President Patricia Preiner, 1<sup>st</sup> Vice-Pres. Barbara Haake, 2<sup>nd</sup> Vice-Pres. John Waller, Secretary Harley Ogata, and Treasurer Rick Mastell.

Absent: None

Staff Present: Administrator Phil Belfiori, Permit Coordinator/Wetland Specialist Nick Tomczik, Office Manager Theresa Stasica, District Public Drainage Inspector Tom Schmidt

Consultants: Mark Deutschman and Brent Johnson, Houston Engineering, Inc. (HEI); District Attorney from Smith Partners

Visitors: Perry Wagamon, Steve Wagamon, Bryan Lueth, Fran and Mary Ann Miron

#### **CALL TO ORDER**

President Preiner called the meeting to order, a quorum being present, at 9:00 a.m.

#### **SETTING OF THE AGENDA**

President Preiner asked for any additions.

District Administrator Belfiori added number 15, add Consider Resolution and Letter for potential Purchase and Houle and Lamprey Pass parcels. Number 3 to include and Interview of Echart Lambertss and move to number 16. Update on Lee Stevens issue and permit applications be moved down to bottom of items requiring action as number 14.

***Motion by Manager Mastell, seconded by Manager Haake, to adopt the agenda as amended.  
Motion carried 5-0.***

#### **READING OF THE MINUTES AND THEIR APPROVAL**

***Minutes of the November 8, 2010, Workshop Meeting. Motion by Manager Mastell, seconded by Manager Ogata, to approve the minutes as presented. Motion carried 5-0.***

#### **Minutes of the November 8, 2010 Public Hearing meeting.**

Manager Haake requested the following changes:

Line 134: the sentence should read: He stated it was important to clarify where the channel was and where the ditch is.

Manager Waller requested the following changes:

40 Lines 162 and 163, the north section line of section 21.

41

42 **Motion by Manager Haake, seconded by Manager Ogata, to approve the minutes as amended. Motion carried 3-0.**  
43 **(Managers Mastell and Waller abstained).**

44

45 **Minutes of the November 10, 2010, Board of Managers Meeting. Motion by Manager Mastell, seconded by Manager**  
46 **Ogata, to approve the minutes as presented. Motion carried 5-0.**

47

48 **OPEN MIKE – LIMIT 12 MINUTES.** Any RCWD resident may address the Board in his or her individual capacity, for up to  
49 three minutes, on any matter not on the agenda. Speakers are requested to come to the podium, state their name and address for the  
50 record. Additional comments may be solicited and accepted in writing. Generally, the Board of Managers will not take official action on  
51 items discussed at this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on an upcoming  
52 agenda.

53 Tony Schwab, 14262 Gardenway North, Hugo and resident of Victor Gardens, stated he was here to update the Board on  
54 the Victor Gardens above ground water problem. With the help and cost-sharing with the City of Hugo, Rice Creek  
55 Watershed District staff and engineers, they finally had a plan together and it was completed at the end of November. He  
56 indicated excessive water was being pumped out away from their homes by underground piping. The project worked very  
57 well. He thanked the Managers for letting them get this issue solved. He indicated this was a long project with a lot of  
58 work. He invited the Managers out in the spring to look at the project.

59

60 Manager Waller indicated one of the reasons this project was so successful was because the residents worked together,  
61 worked with the engineers, and got the project implemented.

62

63 **ADDITIONAL ITEMS REQUIRING BOARD ACTION**

64 **1. Consider Resolution to Adopt Findings, Conclusions and Order to Remove or Modify Washington County**  
65 **Judicial Ditch 2 Sheetpile Weir**

66 Manager Waller left the dias.

67

68 District Engineer Deutschman summarized where they were at on the Judicial Ditch 2 Sheetpile Weir by either  
69 cutting the weir down or removing it in its entirety. He stated the engineers had not been directed at looking at  
70 the other issues regarding the repair of JD2, including the pipeline downstream of the weir or other blockages. He  
71 indicated all of the efforts have been focused on the weir itself and what to do with the weir. He recapped the  
72 technical analysis the engineers have completed including the memoranda completed this year, which are the  
73 basis for several conclusions. He noted the weir serves no drainage function. He indicated the weir breached in  
74 April 2005 and the rate of decline of the lake in 2005 compared to this year was much less than it was in 2005. He  
75 stated the engineers looked at the reasons why that occurred and the engineers concluded that the muck, bog etc,  
76 that were essentially in a portion of the excavated ditch in Rice Lake now blocked surface outflow and serve as the  
77 primary control of the water level in Rice Lake; i.e. it is no longer the weir that controls the water levels. He  
78 indicated there were five different blockages that influenced how the water left Rice Lake. He believed those  
79 blockages were what controlled the water levels and not the weir. He stated the conditions in Rice Lake are very  
80 similar to the way they were in 2003 and 2004; pre-human recent activities including maintenance of the drainage  
81 system by the District downstream of the weir and vegetation management in Rice Lake upstream of the weir. He  
82 stated either option of modifying the weir or removing it would have the same result; i.e., no longer raise water  
83 level in the area upstream of the current weir. He stated he did not believe removing or modifying the weir would  
84 have an effect on the level of Rice Lake, compared to the way things were in 2003. He summarized the design  
85 criteria that the engineers used to modify the weir. He stated the end result would be the same whether they  
86 modified it or removed it.

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District Engineer Deutschman explained one possible cause the lake went down was because there was some type of blockage in the channel that eroded, because of the combined actions of vegetative management in Rice Lake and maintenance performed by the RCWD. He stated he wanted something hard in the channel at the current weir location so that would not occur again, or the risk of occurrence would be very small. He noted this was called a grade control feature, which could be something other than the rock. He stated the weir could be cut which would serve the same function as a grade control feature, but the engineers were proposing rock. He stated the reason the grade control was necessary was to minimize the possibility of future head cutting. He believed there needed to be some hard feature there in order to make that assurance to the DNR. He further stated that the estimated channel velocity during the lowering 2005 were relatively low and do not support the concept of a blockage being eroded away.

District Engineer Deutschman stated the engineers have taken into consideration “what if” possibilities also; i.e., if they have to cease work in the middle of the project. He stated the engineers were proposing two options including modifying the weir through cutting or complete removal of the weir.

District Engineer Deutschman indicated he is proposing having a rip rap blanket at the location of the current weir, which would be ten feet on the upstream side and downstream side of the center of the weir, for a total width of 20 feet. The width is about 55-feet. He stated this was not a bank stabilizing measure, but a grade control function. It is long enough to repair the breach that occurred in April of this year. He proposed the finished elevation be 918, which was the current elevation of the channel and above the official profile of JD2, which was at or about 916. He stated whether the District cut it or fully removed it, they needed some hard feature to stabilize the grade of the channel and he proposed rock rip-rap.

District Engineer Deutschman pointed out the area where the weir would be cut and how they would put down the rock rip-rap. He stated he was concerned about the potential for unauthorized tampering to the blanket resulting in a lower the channel elevation following installation. He indicated there would still be some weir below ground and some in the bank area, but they would take out the majority of the weir if it is modified by cutting. Effectively, that weir, if it was cut, would not impound any water on the upstream side.

District Engineer Deutschman stated the engineers could cut the weir to 918 or 916 and not put the rock in also. He indicated his concern with cutting it to 916 was that it would be below the current channel bottom elevation by about 2-feet, and this lower elevation could migrate upstream toward Rice Lake and essentially the District would be back to where they were in 2005 when the lake lowered if it cut through the cattail bog.

Manager Ogata asked for an explanation of head-cutting. District Engineer Deutschman responded head-cutting simply means that the lower elevation of the channel moves or migrates because of erosion and that a hard feature like the rip-rap or a portion of the weir left across the channel helps prevent this. He stated the cattail bog in the excavated portion of JD 2 and the lake again control the water level and he doesn’t want a lower channel elevation to move upstream and cut through these features.

President Preiner asked how long it would take for the channel at the weir location to fill to 918 if they cut if to 916. District Engineer Deutschman responded he did not know, but he expected it could be fairly rapid (less than a year). He indicated if there was a 100 year event, that velocity might be high enough to cause movement of the accumulated material. He stated this was flow rate dependent and he could not guarantee it would head-cut or fill-in. He stated it was a typical engineering practice to stabilize a stream channel.

134 President Preiner asked how hard it would be to put rock in at a later time. District Engineer Deutschman  
135 responded the District could put the rock in at a later time but the cost would be in remobilizing to the site and  
136 there is no ability to ensure specific unit costs for the materials from the Contractor.

137  
138 Manager Haake stated if the District proceeded with 916, would it be something that would open a “can of  
139 worms” again because the DNR was involved and there were court decisions. She asked what would happen to  
140 the District legally. District Attorney Smith responded he believed it would depend on the circumstances, but the  
141 District could take some guidance from what had happened in 2005 when there was head-cutting and it impacted  
142 the elevations of Rice Lake. He believed this was why the engineer was looking for stabilization of the bottom.

143  
144 District Engineer Deutschman responded he knew the Managers were concerned about the cost of the rip-rap  
145 blanket, so they could cut the weir to 918, and let the remnant of the weir serve as the grade stabilization feature.  
146 It would still be necessary to repair the breach around the west side if the weir is cut-down, or the water flowing  
147 around the weir could further erode the bank.

148  
149 Manager Haake stated if the District did this, they would need to do it the full 55 length. District Engineer  
150 Deutschman responded that was correct as it could continue to erode around.

151  
152 Manager Ogata stated if the District monitored this (i.e., erosion and head-cutting) without the rock rip-rap  
153 blanket being put in, was it technically feasible if a problem was identified to come back and put in the rip-rap  
154 blanket. Would a large portion of material and sediment have to be dug out? District Engineer Deutschman  
155 responded it was technically feasible to monitor and then come and install the blanket if a problem is noticed, but  
156 there might need to be some excavation in order to get the rip-rap blanket in.

157  
158 Manager Mastell asked if a geo grid could be put in by itself. District Engineer Deutschman responded the geo grid  
159 was a material to be placed under the rock along with a filter fabric. The geo grid structurally supports the rock  
160 and the filter keeps dirt from moving from below into the rock. He did not believe the geo grid would stay there  
161 without the rock and would not provide the grade control function needed.

162  
163 District Engineer Deutschman covered the technical aspects of the comments responses. He indicated he went  
164 through all of the various technical comments and provided responses which had been provided to the Managers.  
165 He stated there were three key technical things. One being the DNRs concern about the effect upon Rice Lake  
166 water levels. He stated that compared to pre-human activities (i.e., pre-vegetation management and maintenance  
167 by RCWD of the downstream channel) he did not anticipate a change in lake level. He noted there was some  
168 concurrence from the DNR that the cattails were essentially the water level control now for Rice Lake. He stated  
169 he believed the DNR likes the certainty represented by the weir. He stated the DNR had concern about the effect  
170 upon 4-6 acres public waters with the modification or removal of the weir. He noted the DNR did not indicate  
171 what effect was specifically of concern, but that he did not expect adverse effect to the wetlands between the  
172 current cattail bog controlling the lake and the current weir location. The reason is that these areas are now  
173 sustained by subsurface flow under the bog material and the changes to the weir will not effect this flow  
174 condition. He noted that he personally stood on this bog material this fall in October during his inspection and  
175 noted this type of flow condition. The DNR comments indicated that a public waters permit is needed from them.  
176 District Engineer Deutschman stated that the need for a permit from the DNR is likely based on whether the  
177 project affects the course, current or cross-section of a public water, including JD 2 and Rice Lake. He stated that  
178 based on the technical analysis completed that compared to the 2003-2005 timeframe, there is no reason to  
179 believe that Rice Lake will be lower. The project does not change the course, current or cross section of Hardwood  
180 Creek, which is the public drainage system. He noted legal counsel had prepared letters to the agencies addressing  
181 this. He stated there was no need for an EAW, if the basis is changing the course, current or cross-section of a

182 public water. Again, the Engineer's analysis suggests this not expected to occur. Even the DNR comment letter  
183 recognized that the cattail bog now controls the elevation Rice Lake.

184  
185 President Preiner noted the handwritten notes in the response to comments within the agenda packet were  
186 District Drainage Attorney John Kolb's notes.

187  
188 District Engineer Deutschman stated the District had gone out for quotes to three contractors for both removal  
189 and modification of the weir. No quote was received from BVF. Quotes were received from Cobalt and Scandia  
190 Trucking. He reviewed the quotes received with the Managers. He stated what was received on quotes may not  
191 reflect the actual cost due the difficult site location. He stated the quotes assume the contractor would come in  
192 off of 157<sup>th</sup>. He noted there could be a situation where the engineer needed to direct work in the field and past  
193 work with the District has some influence also on the recommended contractor. A consideration of which  
194 contractor is preferred includes the unit cost of the erosion control measures, that may need to be installed  
195 should a stop work order be issued by the DNR. He indicated Scandia Trucking had worked with the District  
196 previously and worked well with the District. He stated the District had no experience with Cobalt and that this  
197 may be a challenging project for the first project. Quote costs were similar for Cobalt and Scandia Trucking. He  
198 stated staff would prefer Scandia Trucking since the costs are similar and they know the site. He noted in term of  
199 schedule, there would be a performance bond and contractor insurance, which would take approximately a week  
200 to review before construction could begin, but this could be expedited if the Managers wanted.

201  
202 District Attorney Smith stated concerning the permitting requirements, he reviewed the proposed activities and  
203 evaluated the permitting requirement. He believed the two that bore the most focus was the Army Corp of  
204 Engineers and the DNR. With respect to the Army Corp of Engineers, he did not see that it was the action  
205 concerning the weir itself, but rather the question of the rip-rap material that was being proposed. His assessment  
206 was that while the extent of that was really the key issue, there is an exception for drainage maintenance activity  
207 that he believed the stabilization rock measure met. He did not believe it was anything other than what the  
208 engineer described as best practices. He indicated that could be an issue for the Army Corp of Engineers, but it  
209 was his assessment that the permit would not be required. With respect to the DNR, would the weir impact the  
210 public waters. He stated from a legal perspective, there was no clear judicial precedent that really related to the  
211 facts.

212  
213 District Attorney Smith stated there were three different ways the Court could look at the situation. One being  
214 considering whether or not it impacts Rice Lake as compared to the pre 2005 condition before there was  
215 vegetation removal by the DNR and ditch maintenance activities by the District. The Engineer's analysis was that  
216 they are not impacting Rice Lake compared to the 2003-2005 situation. Second, the Court could focus on the weir  
217 in its current condition and whether or not any change would lead to any measurable impact. Finally, the court  
218 could consider any impact with removing the weir compared to a repaired weir scenario. He indicated there was  
219 no order establishing any obligation for ongoing maintenance of the weir.

220  
221 District Attorney Smith stated there was one MN Supreme Court case that might offer some guidance and that  
222 was the Court's definition of what public waters was and when a permit was needed. He summarized that the  
223 Court said the focus should be on impacts that are more than trivial and in some way impact the public interest.

224  
225 District Attorney Smith stated if some modification of the weir occurs and Rice Lake went down by a few  
226 hundred's of an inch, that would likely not be on anything significant as a public interest. He stated for example  
227 the DNR's main interest in Rice Lake seems to be habitat, so the question is whether removal of the weir would  
228 impact habitat. He stated Rice Lake went up and down for many other reasons. Given all of those reasons and  
229 focusing on what was significant for the public waters, it appeared it was important for the Board to focus on how

230 did the removal or modification of the weir affect public waters when compared to the Rice Lake habitat in pre-  
231 2005 conditions. He repeated that no DNR permit or EAW was required where the activity was not impacting  
232 public waters.

233  
234 District Attorney Smith reviewed the draft Findings of Fact for the Manager. He noted the Managers were free to  
235 discard the Findings, change the Findings, or modify the Findings as the Managers wanted.

236  
237 Manager Haake asked if the work was done here. She asked if a Resolution would be passed today or in January.

238  
239 District Attorney Smith responded his view was that there was a full record presented and the options they were  
240 talking about the Board could decide on without further staff work. He noted the Managers may wish to amend  
241 the language.

242  
243 President Preiner asked for reclarification of 916, 918, and 920. District Engineer Deutschman responded 916 was  
244 the profile, 918 was the current bottom, 920 was where the DNR did not want the lake below.

245  
246 Manager Haake asked if the DNR liked 920.4 or 920.5, or just 920, they have all seen Rice Lake and the lines around  
247 the DNR property. Why wouldn't the DNR put whatever they wanted to keep it at 920 on their property rather  
248 than putting in another place where the District had to maintain it. District Engineer Deutschman responded he  
249 was not comfortable answering for the DNR, but the site access was very difficult.

250  
251 Manager Haake asked if a weir was placed in another area that affected property owners and not on DNR  
252 property, wouldn't there be some monetary remedy from the DNR affecting those property owners as well as  
253 owning the weir. District Attorney Smith responded this was referred to in the Findings if the DNR wishes to  
254 manage Rice Lake to a certain elevation, to do so it was appropriate to figure out what kind of structure was  
255 consistent with what they wanted.

256  
257 Manager Haake asked why there was such a legal issue and problem when common sense dictated the way it  
258 should be done.

259  
260 District Engineer Deutschman stated to the Board that they had just received a third quote regarding removal or  
261 modification of the weir. He advised the Managers hold off on a contractor decision at this time.

262  
263 ***Motion by Manager Mastell, seconded by Manager Ogata, to approve Resolution 2010-38 with the Findings as***  
264 ***stated.***

265  
266 John Waller, speaking as a private property owner, pointed out one of the phrases used in today's decision was the  
267 pre-2005 conditions that existed for quite a long time dating from when the ditch began in 1909. So when the  
268 Managers talked about pre-2005 conditions, they were talking about the 1940', 1950's, and 1960's. He stated the  
269 lake was not designated as public waters until the inventory in 1966. He stated this lake was not a meandering  
270 lake. The lake was platted lands. He noted the cross section of the lake was changed in 1973 and made larger. He  
271 stated with respect to head-cutting, if they were worried about it, he suggested the structure be put in its proper  
272 and appropriate place where excavation ended (60 feet beyond the property line of Miron's). He believed the pre-  
273 2005 condition would establish itself. He stated the final thing was in the Order, paragraph 8, regarding the  
274 confirmation. He stated they were waiting to hear from the DNR and the Army Corp of Engineers. He believed  
275 the way this was structured is a dead-end as the DNR had not responded. He did not believe the Managers could  
276 take any action at this time.

277

278 District Engineer Deutschman stated the change in the open water area in Rice Lake overtime was a consideration  
279 and when he was referring to pre-2005 conditions, he was talking about the cattails and not the open water area.  
280

281 Fran Miron, 15250 Homestead Avenue North, Hugo, stated there was a long history with JD2 and the Rice Creek  
282 Watershed District. Initially, back in the 1970's the assessed are of the drainage area was expanded when  
283 Evergreen Hills development was put in. That expansion occurred and there was a special law passed by the  
284 legislature that allowed that area to drain to Rice Lake and the Watershed District has utilized that special law for  
285 a while and that was one of the reasons this ditch system was identified as a trunk system. He stated the RWCD  
286 has provided drainage though the system for development and the ditch had been identified to drain  
287 approximately 60 percent of Hugo. He indicated it seems ironic that they could provide drainage for the urban  
288 lands, but not provide drainage for the agricultural lands that were at the end of the drainage system. He  
289 indicated there was a high spot in a ditch that created wetlands and inundation non farm fields that the District  
290 had little concern about. He stated he had first come before the Board in 1985 to get these issues addressed. He  
291 noted the OHW was established in 1991 and he believed that represents a lack of due diligence on the part of  
292 RCWD to protect his rights. He stated he did not ask permission to maintain the ditch as the RCWD did. He  
293 stated the responsibility was really should be taken more seriously by the RCWD than it has been. He believed  
294 they had identified that there was a cost to provide drainage, but one of the things they had failed to recognize is  
295 that there is a cost to not providing drainage. Although they have not been able to get the question before the  
296 Court, it might be the right decision at some time to get the question before the Court, is this a compensable  
297 taking. He stated the engineer described the channel stabilization of 20 foot by 55 feet, which has been proposed  
298 to be a channel stabilization. He suggested there were other structures within the ditch that served as channel  
299 stabilization. He summarized which culverts had concrete bottoms at the official profile, which served to prevent  
300 erosion or the channel scouring as talked about and maintained it at the official profile and not the artificial  
301 profile. He did not believe there was public benefit or cost of providing stabilization at 919. He stated the  
302 stabilization being proposed was another impoundment structure as a particular elevation that became  
303 permanent in the ditch. He stated in reality this was a footing for something that would become much more  
304 permanent in the future. He believed there were questions that could be raised in the future. He believed rather  
305 than moving forward why not ask these questions of the Court. He asked if the District had the authority to move  
306 the weir or did not DNR have the authority and be responsible for the cost. He asked if the Court would view the  
307 rock structure as just replacing the existing structure. He stated the District's attorney had not suggested they ask  
308 for the Court's opinion. He noted there might be some risk associated with this. He believed the cost the DNR  
309 was concerned about in creating a dam on their own property versus the expenditure of both public and private  
310 dollars, more funds have been spent than if they had done this right in the first place. He believed the proper  
311 place for the channel stabilization would be at the section line on the DNR property at an elevation of 919.2,  
312 which was the official profile of the ditch.  
313

314 District Engineer Deutschman noted the plans had not shown a change in the elevation with the rip rap blanket.  
315 In terms of maintenance profile, there was no maintenance profile at the weir, since it had never been established  
316 at this location. This was not an impoundment and it was not a rock weir. Its sole purpose was grade stabilization.  
317

318 President Preiner inquired about the issue of Court clarification. District Attorney Smith advised that kind of  
319 review be based on the decision that Board makes first based on their authority.  
320

321 Manager Ogata stated it appeared there would be something received from the Army Corp. of Engineers. He asked  
322 how the District would address the DNR's ignoring the permitting issue. District Attorney Smith responded in  
323 communication with the DNR the Board needed to be specific about the timetable. If there was no response, the  
324 Board would need to evaluation their next step and look at alternative means, if necessary.  
325

326 Manager Ogata stated he was not interested in waiting around for the DNR. District Attorney Smith believed it  
327 would be prudent to give the DNR a reasonable time to respond and be clear on the timeline.  
328

329 Manager Ogata stated if the District was not going to add the rock, then he believed the weir needed to be cut  
330 instead of removed to provide some type of prevention for head-cutting.  
331

332 Manager Ogata stated if the District was not going to fill in with rock, it seemed to him that there should be two  
333 conditions: The District would need to get permission from the Miron's to access the weir location through their  
334 property and the Miron's would have to authorize the District to stabilize the area in case there was a head  
335 cutting event in the future and to pre-authorize the District's access in the event there was a head cutting  
336 problem. He stated he did not want this issue to be brought up again. He stated the District would need to  
337 monitor this closely. He stated he would only approve this with those two conditions.  
338

339 Manager Haake stated she preferred doing as the Engineer had suggested, which was to put in the stabilization  
340 pad, rocks, cut down to the 916 and have the rocks put up to 918. She wanted to give the engineer the argument  
341 that the District as just stabilizing the bank and were doing it in a way that they were not doing anything  
342 differently than they would have done. She noted entering onto the property, it did state they would be talking to  
343 Miron's regarding the access point. She asked if there was a way for the cost to be brought back to the Managers if  
344 it got close to the \$100,000.00. District Engineer Deutschman noted the District had requested quotes and the  
345 remainder above the quotes was the \$100,000 number he picked out. He stated it was impossible to tell what  
346 difficulties they would encounter. He indicated the engineering fees were not a part of the \$100,000.00.  
347

348 Manager Mastell indicated there could always be an emergency Board meeting called to address the cost.  
349

350 Manager Haake stated she did not believe the DNR would come to the table and if this was something that would  
351 show the District's intentions, she would go with the Resolution.  
352

353 Manager Mastell amended the motion to state: Remove the weir and do the rock mat at 916, finish at 918, and if  
354 the price went over \$50,000 there would need to be a quorum of the Managers for the overage on cost.  
355

356 President Preiner stated she would prefer the weir be cut with no stabilization.  
357

358 Manager Haake stated the removal to her also included the cutting.  
359

360 President Preiner stated she would like the cut to be made at 916.  
361

362 Manager Mastell stated he would agree to the weir being cut at 918 and if there was a petition in the future to  
363 clean it out, then it could be cut to 916.  
364

365 Manager Ogata stated it seemed more reasonable to cut the weir to the profile and closely monitor this for head-  
366 cutting. He believed the weir should be removed and put the rock back stabilizing it to 918 or cut it to 916 and  
367 don't do anything. He believed this would bring it back to the pre-present human activities.  
368

369 Manager Haake believed it should be cut at 918 because that was the maintenance profile. She noted the official  
370 profile was 916. She indicated later on it could be cut to 916, if necessary in the future.  
371

372 Fran Miron stated he would be open to conversations regarding those issues, but he would want to consult with  
373 his attorney first as he did not want to give up any land rights associated with this. He stated he would be willing  
374 to be engaged in conversation with the Board or the Administrator regarding this.

375  
376 Manager Ogata proposed having two contingencies: Cut the weir down to 916 and if there was not a reasonable  
377 compromise with Miron then the District remove the weir, put in the rock at 918 and be done with it.

378  
379 Manager Haake asked the engineers their opinion as to going down to 916. District Engineer Deutschman  
380 responded in terms of technical feasibility, either one can be done. This was a risk management decision as the  
381 Board's decision. However, there was still some risk if it head-cuts that it would still need to be fixed. He believed  
382 the DNR may view the two elevations differently. He noted the elevation could be in another location as well, but  
383 he preferred it at this location. He noted there was no maintenance elevation, it was just the current bottom of  
384 the ditch at 918.

385  
386 District Engineer Deutschman stated in terms of monitoring this, someone would need to go out weekly and look.  
387 He noted they would not have a lot of time to respond if there was head-cutting.

388  
389 Manager Ogata asked for a friendly amendment to resolution 2010-38, Order item A., after the first sentence  
390 insert:

391 If a reasonable arrangement can be made with Fran and Mary Ann Miron to access the weir through their property  
392 to modify the weir, the weir will be cut to 916 feet with no grade stabilization. This arrangement will be by contract  
393 and include any necessary inspections and subsequent modifications necessary to control head cutting solely at the  
394 determination of the District's Engineer. If an agreement cannot be reached with the Miron by December 24, 2010,  
395 then the sheetpile weir shall be removed in accordance with the Engineer's plans and specifications. The  
396 Administrator...

397  
398 Manager Mastell agreed to the addition.

399  
400 **Amended Motion carried 4-0 (Manager Waller absent for the vote).**

401  
402 **ROLL CALL:**

403 **Manager Haake – Aye**

404 **Manager Mastell – Aye**

405 **Manager Ogata – Aye**

406 **Manager Waller – Absent for vote**

407 **President Preiner – Aye**

408  
409 **Motion carried 4-0.**

410  
411 Manager Mastell requested staff email the Board the revised resolution

412  
413 Manager Waller returned to the dias.

414  
415 **2. Consider Final Certification of 2011 Tax Levy and Budget**

416 District Administrator Belfiori noted no further changes had been made to the 2011 Tax Levy and Budget.

417  
418 **Motion by Manager Mastell, seconded by Manager Waller, to approve Resolution 2010-34.**

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Manager Haake read the BE IT RESOLVED clause noting that Hennepin needed to be added to the list of counties.  
District Administrator Belfiori noted the levy was a zero change from 2010.

**ROLL CALL:**

- Manager Waller – Aye**
- Manager Haake – Aye**
- Manager Ogata – Aye**
- Manager Mastell – Aye**
- President Preiner – Aye**
- Motion carried 5-0.**

**4. Consider Citizens Advisory Committee membership**

District Administrator Belfiori noted there were some vacancies on the Advisory Committee. He indicated staff would emphasis getting more membership from the agricultural community and Hennepin County.

**Motion by Manager Haake, seconded by Manager Waller, to authorize staff to solicit applications on the RCWD Citizens Advisory Committee in accordance with MN Statute 103D. 331 with emphasis on the agricultural community and Hennepin County. Motion carried 5-0.**

**5. Consider District’s Flexible Benefit Plan amendment**

District Administrator Belfiori summarized the plan amendments which are the change in the definition of “over the counter” drugs and “child”.

**Motion by Manager Haake, seconded by Manager Waller, to offer Rice Creek Watershed Districts Flexible Benefit Plan Amendments Certification of Adoption Resolution. Motion carried 5-0.**

**6. Consider City of Saint Anthony 2009 USWR Grant Agreement Amendment**

Water Resource Specialist Axtell informed the Board that they had been contacted by the City of Saint Anthony who requested an amendment to their existing cost share grant agreement. He noted the agreement was approved in 2009 for an alum treatment facility. He stated the District’s grant responsibility was \$50,000.00. To date, the City of Saint Anthony had not been successful in obtaining the federal or state funds and were requesting additional time to get funds for the project. He noted this project was very important to Silver Lake and the money had been allocated in the District’s budget. He stated staff supported the amendment with the caveat if Saint Anthony did not come up with the funding by June 2013 there would be no further extension and the money would revert back to the fund.

**Motion by Manager Waller, seconded by Manager Haake, to amend the 2009 Urban Remediation Program cost-share agreement between the Rice Creek Watershed District and the City of Saint Anthony by changing its expiration date to 48 months from the agreement’s effective date and by adding a clause stating that no further extensions will be allowed. Motion carried 4-0-1 (Manager Ogata was not present at the time of the vote.)**

**7. Consider City of New Brighton USWR Request**

Water Resource Specialist Axtell stated the City of New Brighton was proposing to install salt data collectors on their trucks to track and monitor salt usage throughout the City. He indicated this project fell into the category of

466 “unique application” in that it did not clearly mesh with the intent of the USWR Cost-Share Program. He  
 467 indicated staff has had a hard time justifying support for this proposal as the project did not specifically propose to  
 468 reduce chloride loading to targeted waterbodies and the District not having any established policy for promoting  
 469 chloride reduction projects. He noted given the lack of staff support, the application was not forwarded to the  
 470 District Engineer for review and also had not been forwarded to the RCWD Advisory committee. He  
 471 recommended the Board deny the funding.

472  
 473 ***Motion by Manager Waller, seconded by Manager Ogata, to deny RCWD Urban Stormwater Remediation***  
 474 ***Program funding for the City of New Brighton’s Public Works Salt Data Collectors and further directs staff to***  
 475 ***issue a written correspondence to the applicant as proposed. Motion carried 5-0.***  
 476

477 **8. Consider 2011 Urban Stormwater Remediation Cost-Share Program Authorization**

478 Water Resource Specialist Axtell stated there were no major changes being proposed for the 2011 Urban  
 479 Stormwater Remediation Cost-Share Program. He noted based on the proposed 2011 budget, there would be  
 480 approximately \$175,000 available for new project implementation in 2011.

481  
 482 ***Motion by Manager Haake, seconded by Manager Waller, to approve the Urban Stormwater Remediation***  
 483 ***Cost-Chare Program guidance as presented and authorize staff to initiate the 2011 Urban Stormwater***  
 484 ***Remediation Cost-Share Program and to notify known potential applicants of funding availability by***  
 485 ***publishing a Request for Proposals. Motion carried 5-0.***  
 486

487 **9. Consider 2011 Water Quality BMP Cost-Share Program Authorization**

488 Water Resource Specialist Axtell stated the 2011 Water Quality BMP Cost-Share Program had no major changes  
 489 from the 2010 program. He noted the service agreements will each be capped at \$10,000.00.

490  
 491 ***Motion by Manager Waller, seconded by Manager Mastell, to approve the Water Quality BMP Cost-Share***  
 492 ***Program guidance as presented and authorize staff to promote and implement the 2011 Water Quality BMP***  
 493 ***Cost-Share Program. Motion carried 5-0.***  
 494

495 **10. Consider Authorization for President to Execute Long Lake Inlet Task Order for Final Plans and**  
 496 **Specifications**

497 District Administrator Belfiori stated the Board adopted Resolution 2010-26 granting the petition, confirming the  
 498 engineers report and ordering the Rice Creek/Long Lake Inlet Improvement Project. He indicated this was a task  
 499 order from Houston Engineering to complete the construction bids, bid documents, and construction  
 500 management/observation services for the project in the amount of \$69,300. He recommended the Task Order be  
 501 approved.

502  
 503 District Engineer Deutschman clarified per Board discussion regarding mechanical and hydraulic dredging we have  
 504 provided both options in the construction documents. The Take Order is a little higher than quoted because soil  
 505 testing has been added. Also, Houston Engineering per discussion with staff, are providing 75% of the construction  
 506 observation services which is normally more than we do.

507  
 508 President Preiner stated she would like to have staff do as much of this as possible pending Staff availability.

509  
 510 ***Motion by Manager Waller, seconded by Manager Mastell, to approve Houston Engineering Task Order 2010-***  
 511 ***022 for professional services to complete the Rice Creek/Long Lake Inlet Basic Water Management Project***  
 512 ***Feasibility Study and authorize the Board President to execute the document. Motion carried 5-0.***

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**11. Consider City of Hugo East Side Natural Resource Inventory (NRI) Project**

District Administrator Belfiori stated this was an agreement for a grant not to exceed \$9,000 to partner with the City of Hugo to look at east side development in Hugo to look at land use, natural resource, and water resources.

***Motion by Manager Waller, seconded by Manager Ogata, to approve the Intergovernmental Agreement between Rice Creek Watershed District and the City of Hugo to undertake a Natural Resources Management and Land Use Model for the eastern portion of Hugo called the Eastern Hugo Natural Resource Model and authorize the Board President to execute the Agreement.***

Manager Waller requested to be involved and included in all of the meetings held regarding this issue.

Manager Haake recommended other communities in the District should be informed of the available cost-share funding when they pursue NRI's.

District Engineer Deutschman stated that District GIS resources exist to assist in the efforts.

***Motion carried 5-0.***

**12. Consider December 22, 2010 Check Register – Resolution authorizing Treasurer approval**

***Motion by Manager Ogata, seconded by Manager Waller, to approve Resolution 2010-32, Authorization for Payment of December 2010 Check Register in an amount not to exceed \$300,000.***

**ROLL CALL:**

***Manager Waller – Aye***

***Manager Haake – Aye***

***Manager Ogata – Aye***

***Manager Mastell – Aye***

***President Preiner – Aye***

***Motion carried 5-0.***

**13. Consider Check Register dated 12/8/10, in the amount of \$23,606.02, prepared by HLB Tautges Redpath.**

***Motion by Manager Mastell, seconded by Manager Waller, to approve check register dated 12/8/10, in the amount of \$23,606.02, prepared by HLB Tautges Redpath. Motion carried 5-0.***

**14. Consider offers to purchase the Houle Wildlife Management Area for and a portion of the Lamprey Pass Wildlife Management Area**

District Administrator Belfiori summarized the two letters that would be sent to the DNR for the purpose of incorporating into the Department's internal technical review along with the District's appraisals of the properties. Resolution 2010-33 was passed out to the Board which would authorize offers to purchase the Houle Wildlife Management Area for \$58,700 and a portion of the Lamprey Pass Wildlife Management Area for \$38,400 based on the District's appraisals of the properties to the DNR.

***Motion by Manager Haake, seconded by Manager Waller, to approve Resolution 2010-33 authorizing offers to purchase the Houle Wildlife Management Area for and a portion of the Lamprey Pass Wildlife Management Area in conjunction with the repair of Anoka-Washington Judicial Ditch 4.***

560 **ROLL CALL:**  
 561 **Manager Waller – Aye**  
 562 **Manager Haake – Aye**  
 563 **Manager Ogata – Aye**  
 564 **Manager Mastell – Aye**  
 565 **President Preiner – Aye**  
 566 **Motion carried 5-0.**

567  
 568 **PERMIT APPLICATIONS REQUIRING BOARD ACTION**

569 The following applications have been reviewed by the District Engineer and Staff and will be acted upon without discussion  
 570 in accordance with the Engineer’s Recommendation unless a Manager or the Applicant or another interested person  
 571 requests opportunity for discussion:  
 572

573 **CONSENT AGENDA**

574 <b>No.</b>	574 <b>Applicant</b>	574 <b>Location</b>	574 <b>Plan Type</b>	574 <b>*Recommendation</b>
575 10-078	575 Presbyterian Homes	575 Arden Hills	575 Final Side Design	575 CAPROC 6 items

576 District Permit Coordinator/Wetland Specialist Tomczik introduced the permit. District Engineer Johnson added the  
 577 following words to Page 25, number 4 at the end of the sentence: and the District Engineer concurs.  
 578

579 <b>No.</b>	579 <b>Applicant</b>	579 <b>Location</b>	579 <b>Plan Type</b>	579 <b>*Recommendation</b>
580 10-081	580 TAS Properties, LLC	580 White Bear 581 Township	580 After the Fact Final 580 Site Drainage Plan	580 CAPROC 7 items

582 District Engineer Johnson asked for an additional CAPROC item on page 28 item 8 to read: Applicant shall provide  
 583 documentation in a form acceptable to the District from the township authorizing the use of the pond and recognizing  
 584 the maintenance obligation.  
 585

586 He noted a gravel parking lot was paved without notifying the District and this was rectifying that pavement.  
 587

588 <b>No.</b>	588 <b>Applicant</b>	588 <b>Location</b>	588 <b>Plan Type</b>	588 <b>*Recommendation</b>
589 10-087	589 MnDOT	589 White Bear Lake,	589 Street & Utility Plans	589 CAPROC 2 items

590  
 591 Manager Haake asked if they knew the official profile of the culverts. District Engineer Johnson responded they did have  
 592 information and the culverts would be constructed to match the design standards.  
 593

594 **Motion by Manager Mastell, seconded by Manager Haake, to Approve Conditional Pending Receipt Of Changes**  
 595 **(CAPROC) Permit Applications 10-078, 10-081, and 10-087 as noted in the above Table of Contents in accordance with**  
 596 **the District Engineer’s Findings and Recommendations, as contained in the Engineer’s Report dated November 30, 2010**  
 597 **and December 1, 2010. Motion carried 5-0.**  
 598

599 **ITEMS FOR DISCUSSION AND INFORMATION**

600 **1. City of Lino Lakes Special Area Management Plan (SAMP) Update**  
 601 Jason Naber from Emmons & Olivier Resources (EOR) gave a presentation to the Board regarding the Lino Lakes  
 602 SAMP which EOR, City of Lino Lakes and RCWD have been working jointly on with the ACOE.  
 603  
 604

- 605 **2. Lee Stevens Permit Application Update**
- 606 District Permit Coordinator/Wetland Specialist Nick Tomczik informed the Board that Mr. Stevens had been
- 607 served a legal complaint with a 12/20/2010 deadline for response.
- 608
- 609 **3. Engineer’s Update and Timeline**
- 610 District Engineer Deutschman review several projects with the Board.
- 611
- 612 **4. Staff Reports**
- 613 Review. No Board action required.
- 614
- 615 **5. January Calendar**
- 616 There were no comments on the January Calendar.
- 617
- 618 **6. Manager’s Update**
- 619 Manager Waller complimented staff on the Victor Gardens tour.
- 620 Manager Haake commented that the MAWD annual convention was very successful.
- 621 Manager Mastell commented that he was working with President Preiner on a legislature meeting re: District
- 622 drainage issues. They will keep the managers informed.
- 623 Manager Waller announced that Manager Haake had been re-elected as MAWD president. Congratulations.
- 624

**ADDITIONAL ITEMS REQUIRING BOARD ACTION (continued)**

- 625
- 626 **15. Consider 2011/2012 Solicitation of Interest Notice for Professional Services**
- 627 District Administrator Belfiori reviewed subcommittee findings for the accounting and engineering services. It was
- 628 the subcommittee’s recommendation to retain the District’s current accountant and engineering firms and
- 629 interview the attorney firms. They would also send out letters to the engineering pool members to retain their
- 630 services. The engineering pool item will be brought back to a later meeting. He passed out resolution 2010-36 for
- 631 retention of engineering services.
- 632

***Motion by Manager Mastell, seconded by Manager Waller, to approve Resolution 2010-36 RETENTION of ENGINEERING SERVICES-BE IT FURTHER RESOLVED that the Board of Managers elects to extend the services agreement for engineering services with Houston Engineering, Inc. for an additional two-year period.***

Manager Haake questioned if there is time to negotiate on rates. President Preiner replied that rates were reviewed at the subcommittee meeting. District Administrator Belfiori replied that the new rates were pursuant to rates submitted in their proposal.

**ROLL CALL:**  
***Manager Waller – Aye***  
***Manager Haake – Aye***  
***Manager Ogata – Aye***  
***Manager Mastell – Aye***  
***President Preiner – Aye***  
***Motion carried 5-0.***

District Administrator Belfiori stated the subcommittee’s recommendation was to retain the District’s current accountant firm. He pointed out that only one accounting proposal was received.

651

652 **Motion by Manager Mastell, seconded by Manager Ogata, to approve Resolution 2010-35 RETENTION of**  
653 **ACCOUNTING SERVICES-BE IT FURTHER RESOLVED that the Board of Managers elects to extend the services**  
654 **agreement for accounting services with HLB Tautges Redpath for an additional two-year period.**

655  
656 Manager Haake questioned again if there is time to negotiate on rates. Office Manager Stasica replied the per  
657 month rate remains the same as 2010 but the contract states it is subject to annual review.  
658

659 **ROLL CALL:**  
660 **Manager Waller – Aye**  
661 **Manager Haake – Aye**  
662 **Manager Ogata – Aye**  
663 **Manager Mastell – Aye**  
664 **President Preiner – Aye**  
665 **Motion carried 5-0.**

666  
667 **Recess to interview legal firm Eckberg Lammers, Manager Mastell left the meeting due to a prior appointment.**  
668

669 **The meeting reconvened at 1:04 p.m.**  
670

671 **Motion by Manager Ogata, seconded by Manager Haake, to approve Resolution 2010-37 RETENTION of LEGAL**  
672 **SERVICES-BE IT FURTHER RESOLVED that the Board of Managers elects to extend the services agreement for**  
673 **legal services with Smith Partners and Rinke Noonan for an additional two-year period, and with the**  
674 **additional language under BE IT FURTHER RESOLVED it will read: “BE IT FURTHER RESOLVED that the**  
675 **Administrator is authorized to enter into an extension of the existing agreement with Smith Partners and Rinke**  
676 **Noonan in accordance with the terms of the proposal received and such other terms as are not inconsistent**  
677 **therewith and consistent with current delineation of duties between the firms which will be clarified further in**  
678 **discussions with firms.”**

679 Manager Waller was not in agreement with the motion. The Board was given an opportunity for hourly billing  
680 and task orders through Eckberg Lammers instead of a monthly retainer. This firm believed in conflict resolution  
681 not litigation. He did not believe the District needed specialist in Water Law.

682 President Preiner replied that work will be clearly delineated between the firms.

683  
684 **ROLL CALL:**  
685 **Manager Waller – Nay**  
686 **Manager Haake – Aye**  
687 **Manager Ogata – Aye**  
688 **Manager Mastell – Absent**  
689 **President Preiner – Aye**  
690 **Motion carried 3-1.**

691  
692 **ADJOURNMENT**

693 **Motion by Manager Ogata, seconded by Manager Waller, to adjourn the meeting at 1:12 p.m. Motion carried 4-0.**

## **ITEMS REQUIRING BOARD ACTION**

1. Consider City of Willernie Local Stormwater Management Plan Approval

**MEMORANDUM**  
**Rice Creek Watershed District**

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**Date:** December 30, 2010  
**To:** RCWD Board of Managers  
**From:** Kyle Axtell, Water Resource Specialist  
**Subject:** Willernie – Local Surface Water Management Plan Approval

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**Background / Discussion**

On November 1, 2010 the Rice Creek Watershed District (District) received the City of Willernie’s Local Surface Water Management Plan (Plan) for its review, comment, and approval. Due to the limited nature of the requirements for Willernie’s Plan, District staff directly assisted the City with its revisions, which were completed in a revised plan received November 3, 2010. In its review, District staff recognizes that the City is a fully built-out small community and all of its current and future development will be limited to redevelopment projects.

The City passed Resolution 2010-03 on December 15, 2010 that reaffirms the District’s authority to regulate development within the City through its Rules and also implement the Wetland Conservation Act. The resolution officially adopts the District’s Watershed Management Plan and Rules. The City’s Local Surface Water Management Plan (along with Resolution 2010-03) is consistent with the District’s 2010 Watershed Management Plan and provides a basic description of the surface water regulatory framework within the City, specifically its relationship with the RCWD.

The Metropolitan Council, on November 19, 2010, completed its review of the Plan and concluded that it was consistent with the Council’s Water Resource Management Plan Policy.

**Recommendation**

Based on staff review of the draft Plan along with the changes made to reflect the District’s comments and passage of Willernie Resolution 2010-03 the Plan has been determined to be consistent with the District’s Watershed Management Plan and associated Rules. Staff recommends that the Board of Managers approve the City of Willernie’s Local Surface Water Management Plan as submitted to the District on November 3, 2010.

Proposed action: Manager \_\_\_\_\_ moves to offer resolution 2011-\_\_\_ and its adoption, seconded by Manager \_\_\_\_\_.

Attachments: City of Willernie Resolution 2010-03  
RCWD Draft Resolution 2011-01

**RESOLUTION 2011-01**

**RICE CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**RESOLUTION TO APPROVE CITY OF WILLERNIE  
LOCAL SURFACE WATER MANAGEMENT PLAN**

Manager \_\_\_\_\_ offered the following Resolution and moved its adoption, seconded by Manager \_\_\_\_\_,

WHEREAS on June 9, 2010, the RCWD adopted a new Watershed Management Plan (WMP) under Minnesota Statutes 103B.231, which details the existing physical environment, land use and development in the watershed and establishes a plan to manage water resources and regulate water resource use to improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D;

WHEREAS the WMP incorporates the Rules adopted by the RCWD to improve water quality, prevent flooding and otherwise achieve the goals of Minnesota Statutes Chapters 103B and 103D; and

WHEREAS after submission of an initial draft and a process of RCWD review and comment, on November 3, 2010 the City of Willernie (City) submitted its local surface water management plan under Minnesota Statutes 103B.235 for formal RCWD review and approval; and

WHEREAS the Metropolitan Council received a copy of the local plan and provided comments on that plan to the RCWD in accordance with Minnesota Statutes 103B.235, and the RCWD finds that the City has adequately addressed those comments; and

WHEREAS the RCWD has determined that the local plan, as revised, meets the requirements for approval set forth in the WMP, except that the local plan does not provide for the adoption of official controls or implementation of inspection and administrative procedures necessary to insure that the full regulatory standards of the RCWD are met, as required by the WMP in order for the City to assume sole regulatory authority; and

WHEREAS the City does not wish to assume sole regulatory authority but, instead, has passed Resolution 2010-03 that adopts RCWD's WMP and Rules and authorizes the RCWD to act as the sole regulatory authority for its Rules and the Wetland Conservation Act within the City, within the meaning of Minnesota Statute 103B.211, subd. 1(a)(3) and Minnesota Rule 8420.0200, respectively; and

WHEREAS the RCWD's approval of the local plan rests on the City's agreement that the RCWD will continue to exercise its present regulatory authority; and

WHEREAS the RCWD and the City understand that the RCWD would deem a future withdrawal of the City's authorization without an RCWD determination that the City's official Controls meet WMP standards to constitute a failure to adopt the implementation program of the local plan as specified in Minnesota Statutes 103B.211, subdivision 1(a)(3)(i); and

WHEREAS the RCWD and the City recognize and agree that the City at a later time may amend its plan in order to assume sole regulatory authority, subject to RCWD approval;

THEREFORE BE IT RESOLVED that the RCWD Board of Managers hereby approves the City of Willernie local surface water management plan, as submitted on November 3, 2010.

The question was on the adoption of the Resolution and there were \_\_\_ yeas and \_\_\_ nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>
WALLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HAAKE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OGATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MASTELL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PREINER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the Chair declared the Resolution \_\_\_\_\_.

\_\_\_\_\_  
Harley Ogata, Secretary

Dated January 12, 2011

\* \* \* \* \*

I, Harley Ogata, Secretary of the Rice Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 12th day of January, 2011.

\_\_\_\_\_  
Harley Ogata, Secretary

## **ITEMS REQUIRING BOARD ACTION**

2. Consider Permit Amendment 06-098 Lake  
Johanna Woods

**MEMORANDUM**  
**Rice Creek Watershed District**

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**To:** Board of Managers

**Date:** December 21, 2010

**From:** Nick Tomczik

**Subject:** Lake Johanna Woods 06-098 Amendment

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**Background / Discussion**

The City of Arden Hills has applied to amend permit 06-098 Lake Johanna Woods. The application amendment is for an additional 580 sq ft of wetland impact on site for development of residential lots. The application has been noticed to and the comment period closed for the Technical Evaluation Panel (TEP). The applicant identifies that the onsite wetland replacement exceeds the initial requirements and is large enough to address the additional wetland impact. The onsite replacement area is in the monitoring period.

The decision on wetland replacement plans rests with the RCWD Board; it has not been delegated to the RCWD Administrator. Houston Engineering has considered the additional wetland impact and determined that the additional wetland impact and replacement will not compromise the previous engineering review or comments and District staff supports the proposed amendment.

**Recommendation**

At this time staff recommends Board approval of amending permit 06-098 Lake Johanna Woods.

Proposed Motion: Manager \_\_\_\_\_ moves to approve amendment to permit 06-098 Lake Johanna Woods for an additional 580 sq ft of wetland impact.

## **ITEMS REQUIRING BOARD ACTION**

3. Consider Potential Lange Property Acquisition

**MEMORANDUM**  
**Rice Creek Watershed District**

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**To:** Board of Managers **Date:** January 4, 2011  
**From:** Phil Belfiori  
**Subject:** Request from City of Shoreview regarding Louis Lange Property, Shoreview MN

---

**Introduction**

Purpose of this memo is to provide an update on the Lange Property issue since the last RCWD Board Workshop discussion on the issue on December 6, 2010.

**Background / Discussion**

At their December workshop, the Shoreview City Council unanimously supported the joint purchase of the Lange Property and directed staff to make a formal request to RCWD (see attached letter from the City of Shoreview dated January 3, 2011) for partnership. The attached letter from the City Shoreview requests that RCWD pursue the development of an inter-governmental joint powers agreement for a 3-way partnership arrangement where RCWD would pay approximately 1/3<sup>rd</sup> of the proposed purchase price (\$105,500) via easement acquisition from Ramsey County and then the County would purchase the property from Mr. Lange for the total estimated market value of \$316,500.

**Options for Board Consideration**

**Option #1.** Board agrees to participate as requested by the City in the attached letter. If pursued it is recommended that the Board consider funding this acquisition by utilizing the fund balance for the district Lakes and Streams fund. At this time, staff is recommending that the Board pursue Option #1.

- **Potential benefits:** Would result in resolution of long-standing and complex intergovernmental issue through a shared partnership project. Provides a location to pursue the potential development of a wetland enhancement or water quality BMP project upstream of Valentine Lake (which in an impaired waterbody) and within a completely urbanized /“built-out” portion of the District where finding the available undeveloped and open land area for a treatment or wetland project is not likely to present itself again.
- **Potential drawbacks:** Perceived high cost of establishing a project

**Option #2.** Board agrees to participate as requested by the City in the attached letter, but at a proposed purchase price of less than 1/3<sup>rd</sup> of the proposed purchase price (Less than \$105,500), if Board prefers this approach, staff would suggest 50% of request amount or (\$52,250) based in part on the estimated higher cost to build a project if funding is ever made available.

## MEMORANDUM

### Rice Creek Watershed District

- **Potential benefits:** Provides for RCWD funding level based on the likelihood of receiving less than optimal water quality/quantity benefits if and when project on site is developed.
- **Potential drawbacks:** Would not be consistent with attached request from City and may eliminate future ability to create a partnership approach to addressing situation and access to site future a future project in this subwatershed.

**Options #3.** Choose to not participate at this time as requested by the City in attached letter.

- **Potential benefits:** Would allow Board additional time to consider status of issue and options to address.
- **Potential drawbacks:** Would not be consistent with attached request from City and may eliminate future ability to create a partnership approach to addressing situation.

At this time staff is requesting that the Board of Managers discuss this item in light of the attached request from the City of Shoreview. This issue is on the January 12, 2011 Board Meeting agenda for Board Action.

**Attachment:** January 3, 2011 letter from City of Shoreview

City Council:  
Sandy Martin, *Mayor*  
Blake Huffman  
Terry Quigley  
Ady Wickstrom  
Ben Withhart



City of Shoreview  
4600 Victoria Street North  
Shoreview, MN 55126  
651-490-4600 phone  
651-490-4699 fax  
[www.shoreviewmn.gov](http://www.shoreviewmn.gov)

---

January 3, 2011

Mr. Phil Belfiori  
Administrator  
Rice Creek Watershed District  
4325 Pheasant Ridge Drive  
Suite 611  
Blaine, MN 55449-4539

---

Re: Potential Joint Agency Purchase of Lange Property

Dear Administrator Belfiori:

The City of Shoreview is seeking further consideration by the Rice Creek Watershed District Board of Managers to partner with the City and Ramsey County in the joint purchase of vacant land owned by Mr. Louis Lange.

The subject property is located on Lexington Avenue, north of County Road E and the CP Rail/Soo Line railroad tracks, and south of the Island Lake single-family residential neighborhood. The property is also just west of the Ramsey County open space area of Island Lake and the County owns a thirty-foot wide strip of land immediately north of the site that includes an improved trail. The property is 4.5 acres in size and has about 550 feet of frontage on Lexington Avenue. The property has always been undeveloped and includes a 2.4 acre wetland that potentially limits maximum private development.

As you know, officials from the City of Shoreview, Ramsey County and Rice Creek Watershed District have had considerable discussions about the history and potential development of the property for a number of years and within the past six months have outlined the framework of a potential three-agency agreement that could lead to the purchase of the property for the public interest.

The City, County and RCWD were approached by Mr. Lange and a representative about his interest in selling the property to the three agencies. The Ramsey County Parks and Recreation Director Greg Mack, former RCWD Administrator Doug Thomas and myself met several times to discuss the property and concluded there was interest in preserving the property for the public benefit by incorporating the parcel into the adjacent County parkland/open space of Island Lake, if a fair purchase price could be established. Mr. Lange was informed of this interest and asked to present an "offer of

sale” in an amount not to exceed the Taxable Market Value of \$276,000 established by the County Assessor.

Subsequent to this communication, Mr. Lange by letter submitted an “offer of sale” in the amount of \$613,300 based on the 2005 Taxable Market Value. After further discussions with both the County and RCWD staff, the City informed Mr. Lange that based on this higher sale price there was no purpose or support for engaging in further negotiations.

More recently, Mr. Lange informed the City that he reconsidered his offer of sale and tendered a new sale price of \$316,500. This value is consistent with Ramsey County’s established full Estimated Market Value of the property as they gave a property tax exemption of \$40,500 in recognition of the wetlands (Taxable Value of \$276,000).

The revised offer of sale at \$316,500 was discussed in a joint meeting of the respective lead staff of the three agencies and we concluded it was a more reasonable offer that could be presented to our respective boards for consideration, based upon previous discussions of the parties.

Staff from the three agencies has outlined general terms of a three-party agreement that would be executed stipulating the interests and requirements of the County, City and RCWD. The concept would be for Ramsey County to actually acquire and own the Lange property, with the Rice Creek Watershed District being conveyed an easement for the wetland areas, and all three entities maintaining certain rights for future stormwater and trail improvements. It was also noted there may be potential value of wetland credits that could be shared among the three units of government.

In reviewing the proposal at their December workshop meeting, the Shoreview City Council unanimously supported the joint purchase of the Lange property, noting the benefits of securing the property for public ownership, park and trail use, and potential for environmental improvements that could be initiated similar to other recent partnerships between the City of Shoreview and the Rice Creek Watershed District. Furthermore, the City Council also believes the purchase would eliminate any potential legal claims or exposure risks towards the three public agencies that have been alleged by the property owner.

On behalf of the City Council, the City of Shoreview is respectfully requesting the Rice Creek Watershed District Board of Managers agree to participate in the joint purchase of the Lange property as has been outlined.

Sincerely,



Tom Simonson  
Assistant City Manager  
and Community Development Director

## **ITEMS REQUIRING BOARD ACTION**

4. Consider Retention of Engineering services pool

**MEMORANDUM**  
**Rice Creek Watershed District**

---

**To:** Board of Managers  
**From:** Phil Belfiori  
**Subject:** Retention of Engineering Services Pool

---

**Date: January 6, 2011**

**Background / Discussion**

As directed by the Board, staff has requested and received new billing rates (attached) from the firms in the RCWD Engineering Services Pool which includes: Barr Engineering Company, EOR, G-Cubed, HDR, SRF Consulting, Wenck Associates Inc., and WSB & Associates

Pursuant to the Board's Professional Services Subcommittee recommendation and subsequent Board direction, staff recommends approval of the attached resolution for retention of engineering services pool. If approved, the resolution would authorize the Administrator to enter into an extension of the existing agreements with each of the firms listed above and incorporate the attached 2011 fee schedules.

**Attached:**

- Resolution 2011 -02 regarding retention of Engineering Services Pool
- New billing rate tables for the firms in the RCWD Engineering services pool

**RESOLUTION 2011-02**

**RICE CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**RETENTION of ENGINEERING SERVICES POOL**

Manager \_\_\_\_\_ offered the following resolution and moved its adoption,  
seconded by Manager \_\_\_\_\_:

**WHEREAS** Minnesota Statutes Section 103B.227 requires that at least every two years the District solicit proposals for professional services before retaining the services of a consultant or extending a services agreement, and the District has solicited and reviewed proposals in accordance with the statute;

**WHEREAS**, in addition to retaining the District Engineer, the Board of Managers has also elected to maintain a pool of engineering firms available to provide consulting services for selected projects based on specific task orders;

**THEREFORE BE IT RESOLVED** that the Board of Managers elects to extend the services agreement for engineering services the following firms to serve as the engineering pool for an additional two-year period:

- Barr Engineering Company
- Emmons & Olivier Resources, Inc.
- G-Cubed Engineering
- HDR Engineering, Inc.
- SRF Consulting Group
- WSB and Associates
- Wenck Associates, Inc.

**BE IT FURTHER RESOLVED** that the Administrator is authorized to enter into an extension of the existing agreement with each of the firms listed above. in accordance with the terms of the proposal received and such other terms as are not inconsistent therewith.

On the adoption of the Resolution and there were \_\_\_ yeas and \_\_\_ nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>
WALLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HAAKE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OGATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MASTELL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PREINER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the Chair declared the Resolution \_\_\_\_\_.

\_\_\_\_\_  
Harley Ogata, Secretary

Dated: January 12, 2011

\* \* \* \* \*

I, Harley Ogata, Secretary of the Rice Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 12th day of January, 2011.

---

Harley Ogata, Secretary



# Fee Schedule—2011

Rev. 01/01/11

Description	Rate* (U.S. dollars)
Principal .....	\$120-220
Consultant/Advisor .....	\$155-220
Engineer/Scientist/Specialist III.....	\$125-150
Engineer/Scientist/Specialist II.....	\$95-120
Engineer/Scientist/Specialist I.....	\$65-90
Technician III.....	\$125-150
Technician II.....	\$95-120
Technician I.....	\$50-90
Support Personnel II .....	\$95-170
Support Personnel I .....	\$50-90

Rates for litigation support services will include a 30% surcharge.

A ten percent (10%) markup will be added to subcontracts for professional support and construction services to cover overhead and insurance surcharge expenses.

Invoices are payable within 30 days of the date of the invoice. Any amount not paid within 30 days shall bear interest from the date 10 days after the date of the invoice at a rate equal to the lesser of 18 percent per annum or the highest rate allowed by applicable law.

Reimbursable expenses including, but not limited to, the actual and reasonable costs of transportation, meals, lodging, parking costs, postage, and shipping charges will be billed at actual cost. Materials and supplies charges, printing charges, and equipment rental charges will be billed in accordance with Barr's standard rate schedules. Mileage will be billed at the IRS-allowable rate.

Principal category includes consultants, advisors, engineers, scientists, and specialists who are officers of the company.

Consultant/Advisor category includes experienced personnel in a variety of fields. These professionals typically have advanced background in their areas of practice and include engineers, engineering specialists, scientists, related technical professionals, and professionals in complementary service areas such as communications and public affairs.

Engineer/Scientist/Specialist categories include registered professionals and professionals in training (e.g. engineers, geologists, and landscape architects), and graduates of engineering and science degree programs.

Technician category includes CADD operators, construction observers, cost estimators, data management technicians, designers, drafters, interns, safety technicians, surveyors, and water, air, and waste samplers.

Support Personnel category includes information management, project accounting, report production, word processing, and other project support personnel.

\*Rates do not include sales tax on services that may be required in some jurisdictions.

## EOR 2011-2012 HOURLY FEE SCHEDULE

<u>Classification</u>	<u>Hourly Rate (*)</u>
Professional 1 .....	\$86.00
Professional 2 .....	\$102.00
Professional 3 .....	\$125.00
Professional 4 .....	\$138.00
Technician 1 .....	\$61.00
Technician 2 .....	\$71.00
Technician 3 .....	\$80.00
Principal Partner .....	\$170.00
Support Staff .....	\$51.00

**Professionals:**

Includes licensed and nonlicensed engineers, landscape architects, geologists, scientists, surveyors, field professionals, and geospatial professionals with bachelor's or advanced degrees.

**Technicians:**

Work requires a combination of basic scientific knowledge and manual skills which can be obtained thorough two years of post high school education, such as is offered in technical schools, community colleges, or through equivalent on-the-job training.

**Principal Partners:**

Officers and departmental managers at the highest level of EOR staff classification performing technical and quality control supervision.

**Support Staff:**

Non-manual clerical work performed by office administrators, administrative assistants, bookkeepers, messengers, office helpers, and clerks.

**Additional Notes:**

- *Reimbursable expenses (Reproduction, Printing, Duplicating, Mileage at current government rates, DGPS equipment, field supplies, use/rental of special equipment, telephone calls, stakes, etc.) will be billed at cost.*
- *Subcontracted services will be billed at cost plus 15% to cover overhead expenses.*
- *Expert witness trial and deposition testimony will be billed at the above hourly rates times 1.5.*
- *Payment is due upon receipt of invoice. If the invoice is not paid within thirty (30) days after invoice date, Client will also pay a finance charge thereon of 1.5 percent or the maximum rate allowed by law, whichever is less, for each month thereafter or portion thereof that an invoice remains unpaid.*

(\*) Rates reviewed and adjusted on an annual basis.

# *G-Cubed Inc.*

## *Engineering, Surveying, & Planning*

14070 Hwy 52 SE Chatfield, MN 55923

Phone: 507-867-1666

Fax: 507-867-1665

January 1, 2011

### **Re: Fee Schedule**

Our fee schedule is as follows:

- 3 man Survey Crew with 2 GPS controllers \$260/hr
- 2 man Survey Crew \$191/hr
- 1 man Survey Crew \$159/hr
- Soil Boring Rig \$143/hr
- Administrative Engineer \$159/hr
- Principal Engineer \$133/hr
- Principal Land Surveyor \$133/hr
- Design Engineer \$106/hr
- Engineering Specialist \$101/hr
- Engineering Aide \$77/hr
- Administrative \$53/hr
- Printing / Plotting Services
  - | <u>Size</u> | <u>B&amp;W</u> | <u>Color</u> |
|-------------|----------------|--------------|
| 8.5"x11"    | \$0.10/sheet   | \$0.50/sheet |
| 8.5"x14"    | \$0.15/sheet   | \$1.00/sheet |
| 11"x17"     | \$0.20/sheet   | \$2.00/sheet |
| Plot        | \$1.40/s.f.    | \$2.00/s.f.  |
  - Trimming/Folding = \$25.00/hour
- Travel Expenses
  - Hotels are billed per submitted invoice. Meals are invoiced at \$8.00, \$11.00, and \$20.00 for breakfast, lunch, and dinner respectively.

We do not bill any charges for mileage or equipment rental. Application fees paid by G-Cubed Inc. on behalf of the client will be invoiced to the client, subject to carrying fees for unpaid invoices.

Feel free to contact us if you have any questions or need additional information.

Sincerely,



Geoffrey G. Griffin PE LS

**2011 Rate Schedule**

Classification	2011 Rate Range
Project Principal	\$187 - \$258
Principal Scientist/Planner/Engineer	\$167 - \$231
Project Manager (Level I to IV)	\$114 - \$251
<b><u>Senior Scientist/Planner/Engineer/Architect</u></b>	
Level IV	\$213 - \$251
Level III	\$172 - \$213
Level II	\$150 - \$187
Level I	\$135 - \$161
<b><u>Project Scientist/Planner/Engineer/Architect</u></b>	
Level V	\$135 - \$156
Level IV	\$130 - \$150
Level III	\$124 - \$144
Level II	\$109 - \$134
Level I	\$94 - \$124
<b><u>Scientist/Planner/Engineer/Architect</u></b>	
Level IV	\$94 - \$134
Level III	\$84 - \$112
Level II	\$73 - \$102
Level I	\$63 - \$91
<b><u>Designer/Technician/Inspectors</u></b>	
Level VII	\$130 - \$171
Level VI	\$114 - \$150
Level V	\$105 - \$130
Level IV	\$92 - \$117
Level III	\$83 - \$107
Level II	\$68 - \$91
Level I	\$53 - \$80
<b><u>Drafting/CADD</u></b>	
Level V	\$108 - \$129
Level IV	\$71 - \$98
Level III	\$65 - \$88
Level II	\$56 - \$72
Level I	\$47 - \$62
<b><u>Project Support/Clerical</u></b>	
Project Support Specialist	\$73 - \$97
Clerical Level III	\$65 - \$88
Clerical Level II	\$56 - \$80
Clerical Level I	\$46 - \$70

**Direct Expenses**

<b>Computers/Technology Charges:</b> Billed per labor hour	\$3.70/hour
<b>Special Equipment Charges:</b> GPS	\$100/day
<b>Travel Costs:</b> Mileage   Auto Rental, Lodging, Meals, Fuel, Airline Tickets, Taxi, Parking	IRS Allowable   At Cost
<b>Outside Expenses:</b> Including but not limited to: photographs, printing, duplicating, color copies, plotting, binding, plan reproduction, express mail, couriers, telephone, project specific materials, equipment rental, and maps.	At Cost + 5%
<b>Sub-Consultants</b>	At Cost +5%

Rates Effective Through 12/31/11 and will increase by 3% for services in 2012

**SRF CONSULTING GROUP, INC.  
RANGE OF HOURLY BILLING RATES  
2011 THROUGH 2012**

	2011	2012
<b>PRINCIPAL</b>	\$168 - \$191	\$168 - \$194
<b>SENIOR ASSOCIATE</b>	\$144 - \$180	\$144 - \$183
<b>ASSOCIATE</b>	\$119- \$158	\$119- \$161
<b>SENIOR PROFESSIONAL</b>		
Design Review Engineer	\$120 - \$158	\$120 - \$161
MIS Specialist	\$108 - \$144	\$110 - \$146
Engineer	\$ 92 - \$140	\$ 93 - \$142
Landscape Architect	\$ 92 - \$140	\$ 93 - \$142
Planner	\$ 92 - \$140	\$ 93 - \$142
<b>PROFESSIONAL</b>		
Engineer	\$ 70 - \$110	\$ 71 - \$112
Hydrologist	\$ 70 - \$110	\$ 71 - \$112
Landscape Architect	\$ 70 - \$110	\$ 71 - \$112
Planner	\$ 70 - \$110	\$ 71 - \$112
<b>TECHNICAL</b>		
Safety Specialist	\$119 - \$158	\$121 - \$161
Engineering Specialist	\$100 - \$126	\$102 - \$128
Right-of-Way Specialist, Senior	\$ 78 - \$116	\$ 79 - \$118
Right-of-Way Specialist	\$ 59 - \$ 97	\$ 59 - \$ 98
CADD/Field Technician, Principal	\$ 92 - \$124	\$ 93 - \$126
CADD/Field Technician, Senior	\$ 78 - \$110	\$ 79 - \$112
CADD/Field Technician	\$ 59 - \$ 92	\$ 59 - \$ 93
Survey Technician, Principal	\$100 - \$124	\$102 - \$126
Survey Technician, Senior	\$ 78 - \$110	\$ 79 - \$112
Survey/Traffic Technician	\$ 49 - \$ 83	\$ 49 - \$ 84
<b>PRODUCTION</b>		
WEB Designer, Principal	\$ 92 - \$124	\$ 93 - \$126
Graphics Technician, Principal	\$100 - \$124	\$102 - \$126
Graphics Technician, Senior	\$ 78 - \$110	\$ 79 - \$112
Graphics Technician	\$ 59 - \$ 92	\$ 59 - \$ 93
Sr. Editor	\$ 93 - \$115	\$ 94 - \$117
Editor	\$ 78 - \$110	\$ 78 - \$112
Administrative Assistant	\$ 67 - \$ 88	\$ 67 - \$ 89
Clerical	\$ 50 - \$ 80	\$ 51 - \$ 81

The Range of Hourly Rates schedule is subject to change annually. Direct project related expenses are billed at actual cost and mileage is billed at a rate not to exceed the current allowable IRS rate for business miles.

# **Section I – General Firm Information and Qualifications**

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## **2011 Fee Schedule**

**WENCK ASSOCIATES, INC.  
PROFESSIONAL ENGINEERING FEE SCHEDULE  
JANUARY 2011**

	Hourly Rate
General Office	\$63.00
Clerical	\$69.00
Technician/Word Processor	\$77.00
Field Technician/Sr. Word Processor	\$89.00
Junior Engineer/Junior Scientist	\$96.00
Assistant Engineer/Assistant Scientist	\$105.00
Engineer/Scientist	\$118.00
Engineer II/Scientist II	\$126.00
Engineer III/Scientist III/Designer	\$137.00
Senior Engineer/Senior Scientist	\$149.00
Project Engineer/Project Professional	\$160.00
Supervising Engineer/Supervising Professional	\$173.00
Project Manager/Project Professional	\$179.00
Senior Project Manager/Senior Professional	\$179.00

- Subcontracted services will be billed at cost plus 15 percent.
- Mileage will be billed at the IRS approved rate.
- Reproductions will be billed at the rate of \$0.15 per copy.
- AutoCAD/Intergraph/GIS/Modeling will be billed at a rate of \$10.00/hour.
- Invoices are due upon presentation. Invoice balances not paid within thirty (30) days of invoice date are subject to 1-1/2% (18% annual) interest or finance charge.
- Rates to be adjusted annually.



# 2011 Rate Schedule

	<i>Billing Rate/Hour</i>
Principal	\$134.00
Associate	\$126.00
Sr. Project Manager/Sr. Project Engineer	\$121.00
Project Manager II/Project Engineer III/Engineering Specialist IV	\$112.00
Project Manager/Project Engineer II/Engineering Specialist III	\$105.00
Project Engineer/Registered Land Surveyor/Engineering Specialist II	\$96.00
Graduate Engineer II/Engineering Specialist I/Sr. Construction Observer	\$86.00
Graduate Engineer/Engineering Technician V/Construction Observer	\$76.00
Planner	\$72.00
Engineering Technician IV/Scientist III	\$68.00
Engineering Technician III/Scientist II	\$62.00
Engineering Technician II/Scientist I	\$56.00
Engineering Technician I	\$49.00
Office Technician II	\$62.00
Office Technician I	\$33.00
Survey (Two-Person Crew/GPS Crew)	\$140.00
Survey (Three-Person Crew/Expanded GPS Crew)	\$167.00

Costs associated with word processing, vehicle mileage, cell phones, reproduction of common correspondence and mailing are included in the above hourly rates.

Reimbursable expenses include costs associated with plan, specification and report reproduction, permit fee, delivery cost, etc.

Rate Schedule is adjusted annually.

## **ITEMS REQUIRING BOARD ACTION**

5. Consider Task Order Approval for District-wide Modeling Phase III (final phase) of District-wide Modeling Contract

**MEMORANDUM**  
**Rice Creek Watershed District**

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**To:** Board of Managers **Date:** January 6, 2011  
**From:** Phil Belfiori  
**Subject:** Houston Task Order No. 2011-06 -Rice Creek Watershed District  
District Wide Modeling Year 3 Implementation

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**Background / Discussion**

As a follow-up to continued implementation of the RCWD District-Wide Model implementation plan dated October 1, 2008 (accepted November 12, 2008) attached, for Board consideration and action is Houston Engineering (HEI) Task Order No. 2011-06 for Rice Creek Watershed District Wide Modeling Year 3 Implementation. The Year 3 modeling project is critical to create a tool used by the RCWD to identify activities related to hydrologic, hydraulic and water quality modeling to monitor the progress toward completing priority tasks, and as tool for budgeting the fiscal resources of the RCWD.

Attached to this memo is Task Order 2011-06 detailing the scope of services from Houston Engineering to complete the necessary tasks for completion of year 3 of the District Wide Modeling project. HEI has estimated the total cost of services at **\$317,300**. The estimated date of completion is December 31, 2011.

The professional services to be provided by HEI are identified by the various components comprising the 2008 approved Modeling Implementation Plan. These components are:

- Data Collection for System Geometry and Topographic Data;
- Geographic Information System Framework; and
- Model Development, Calibration and Verification.

**Recommendation**

At this time staff recommends Board approval of Houston Engineering, Task Order 2011-06. Funds for this effort will come out of the 60- 19 District Hydro Model Update Account.

Proposed Motion: Manager \_\_\_\_\_ moves to approve Houston Engineering Task Order 2011-06 for professional services to complete the District Wide Modeling Year 3 Implementation and authorize the Board President to execute the document.

Attachments: Houston Engineering Task Order 2011-06



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## SCOPE OF SERVICES

Task Order No. 2011-06  
Rice Creek Watershed District



District Wide Modeling  
Year 3 Implementation

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### RCWD Administrative Information:

Account No.(s): 60-19

Account Name: District Wide Modeling

**Houston Engineering Project No.:** R115555-060.19 - District Wide Modeling  
Year 3 Implementation

### Task Order Purpose:

The purpose of this Task Order is to provide professional services to the Rice Creek Watershed District (RCWD) for implementing Year 3 of the “Modeling Implementation Plan” as described within *District-Wide Model Development for the Rice Creek Watershed District* dated October 1, 2008 (i.e., the Implementation Plan). The Implementation Plan is one of the tools used by the RCWD to identify activities related to hydrologic, hydraulic and water quality modeling which need completing, to monitor the progress toward completing these tasks, and as a tool for budgeting the fiscal resources of the RCWD. The Implementation Plan (see **Attachment A**) identifies the activities compromising the District Wide Model Program and includes “planning level” level-of-effort probable costs for the various activities. The specific activities for Year 3 have been revised to reflect the work completed during Year 1 and Year 2 and items that have been put on hold.

This Task Order places the Year 3 activities into several categories, for the purposes of describing the activities to be completed by Houston Engineering, Inc. (HEI). This Task Order reflects those activities to be completed by HEI and identifies whether the successful completion of the activity is dependent upon select tasks being completed by RCWD staff.



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## SCOPE OF SERVICES

### Task Order No. 2011-06 Rice Creek Watershed District District Wide Modeling Year 3 Implementation



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The Implementation Plan is a planning tool for the RCWD and the activities and probable cost range are only generally described within the Implementation Plan. Therefore, the approach used to develop this Task Order is to identify actions / steps associated with each of activity and the probable cost as presented within the Implementation Plan and to refine these using actual costs from the two previous year's efforts. Some change in specific activities as identified within the Implementation Plan have occurred and should be expected by the RCWD as the various activities are completed by HEI. These are generally identified within the attached implementation plan.

#### **Professional Services Rendered:**

The professional services to be provided by HEI are identified by the various components comprising the Implementation Plan. These components are:

- Data Collection for System Geometry and Topographic Data;
- Geographic Information System Framework; and
- Model Development, Calibration and Verification.

The anticipated activities by task within each component are identified in bullet format. The activities identified represent those expected based upon best professional judgment and our current understanding of the information available. Some change in the specific activities should be expected during the completion of the Task Order, as a result of the development / understanding of more detailed information. Houston Engineering will keep the Administrator informed of potential changes in the tasks through oral and written (monthly) reports accompanying the invoices.

## SCOPE OF SERVICES

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



HEI anticipates providing the following professional services during the completion of this Task Order:

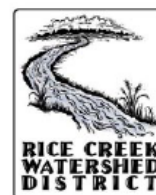
### Task 1. Data Collection for System Geometry and Topographic Data

The purpose of Task 1 is to complete surveying to characterize the geometry of the stream channel and floodplain area within Lower Rice Creek, for use in future hydrologic and hydraulic modeling. This task is focused on surveying four major areas within the Rice Creek Watershed District. These areas are RCD 2,3,4,5, ARJD1, RCD 8, and Rice Creek below Long Lake. The survey will be completed generally consistent with the level of detail for mapping floodplains in accordance with specifications established by the Federal Emergency Management Agency (FEMA). We have also included an incidental survey activity to develop survey data requested by the modeler at the time of model development; it is already known that a small portion of ACD 53-62 will need to be surveyed under this task. The completed survey data will be stored within a survey Geographic Information System (GIS) geodatabase.

General Description	Probable Cost	Probable Tasks	RCWD Activities
Complete survey for Lower Rice Creek Planning Region	\$66,900	<ul style="list-style-type: none"> <li>Complete 22.3 miles of Full Hydraulic Survey on RCD 2,3,4,5, ARJD1, RCD 8, and Rice Creek below Long Lake (~ 6 sections per mile).</li> <li>Only storm sewer which is part of a legal drainage system will be surveyed. Level of survey collection will depend on level of detail required for modeling purposes.</li> <li>Take pictures of structures / cross sections.</li> <li>Reduce survey data and store in geodatabase.</li> <li>Provide updated geodatabase to the RCWD.</li> </ul>	None.
Incidental Survey	\$7,000	<ul style="list-style-type: none"> <li>During the course of hydrologic and hydraulic modeling, specific survey needs will arise due to gaps in previous survey data. This task will cover those incidental survey needs.</li> </ul>	None.

**SCOPE OF SERVICES**

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



Task 2. Geographic Information System Framework

The model development strategy described within the document titled *District-Wide Model Development for the Rice Creek Watershed District* envisions a data-centered approach, where a “soft-linkage” exists between GIS and the various hydrologic, hydraulic, and water quality models. This means that the model structure for routing water and pollutants and the input parameters are stored within / generated within GIS. By using the same naming conventions within GIS and the models, model inputs can be generated in GIS and imported into the models. Similarly, model results can be exported back into GIS for the purposes of communicating results. This task is focused on using GIS to create the necessary structure for modeling within the RCWD.

General Description	Probable Cost	Probable Tasks	RCWD Activities
Generate Runoff Volumes and Pollutant Loadings	\$50,000	<ul style="list-style-type: none"> <li>• The purpose of this task is to estimate annual runoff and compute pollutant loads on a subwatershed basis. There are approximately 1200 subwatersheds currently delineated.</li> <li>• Run the existing conditions SWMMM models for the entire District in continuous simulation mode for a long period of time (e.g. a 3-year precip record) to determine annual runoff values and port these values back into GIS at the corresponding pour points.</li> <li>• Use the annual runoff volumes along with spatially averaged event mean concentrations based upon land use for Total Phosphorous and Total Suspended Solids (based on literature values for land use event mean concentrations provided by the District) to estimate annual yields at the subwatershed pour points based on our current subwatershed boundaries from the hydrologically conditioned DEM.</li> <li>• The final product would be a subwatershed shapefile with annual runoff volumes and TP &amp; TSS pollutant loads to aid in the completion of TMDL work, screening subwatersheds for projects, and in concept design work.</li> </ul>	None.



**SCOPE OF SERVICES**

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



<p>Create digital bathymetry for primary lakes in Lower Rice Creek Planning Region</p>	<p>\$5,400</p>	<ul style="list-style-type: none"> <li>• Identify the lakes with sufficient storage to include in the hydrologic models for the RCWD (Valentine, Round, Rush, Farrels, Little Johanna, Little Josephine, Silver, Pike, Josephine, Johanna, Long).</li> <li>• Download current electronic bathymetry from MnDNR website.</li> <li>• Obtain hard copy contour maps from remaining lakes.</li> <li>• Use LiDAR to develop elevation – area relationship above water level.</li> <li>• Develop Elevation-Storage Curves for all of the lakes identified above.</li> </ul>	<p>None.</p>
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## SCOPE OF SERVICES

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



### Task 3. Model Development and Calibration

One of the goals of the District Wide Modeling Implementation plan was the identification of floodplain boundaries and elevations for use during the permitting process, to provide guidance and assistance to stakeholders, and to quantify floodplain storage mitigation requirements. The following tasks are focused on achieving this goal. For modeling efforts involving storm sewer, only storm sewer that is a part of the District legal drainage system will be explicitly modeled. **Attachment B** shows a schematic of RCD 2, 3, 4, and 5 and how this approach applies to this system.

General Description	Probable Cost	Probable Tasks	RCWD Activities
Modeling	\$130,200	<ul style="list-style-type: none"> <li>• Modeling will include approximately 43 miles of detailed study for Rice Creek and contributing drainage systems or tributaries. A detailed study includes defining Base Flood Elevations (BFE) along the main system reach.</li> <li>• Hydrologic and Hydraulic modeling for the following systems: <ul style="list-style-type: none"> <li>○ ACD 53-62</li> <li>○ ARJD1</li> <li>○ RCD 2,3,4,5</li> <li>○ RCD 8</li> <li>○ Rice Creek below Baldwin Lake</li> </ul> </li> <li>• RCD1 will be modeled as part of the Rice Creek model, due to short length of the system and small number of road crossings.</li> <li>• Only storm sewer that is a part of the District legal drainage system will be explicitly modeled.</li> <li>• Hydrologic and Hydraulic modeling will follow the RCWD modeling specifications.</li> <li>• Modeling reports for each modeled system will be completed and provided as deliverable, consistent with the specification.</li> <li>• Hydrologic and Hydraulic modeling will be completed for the following return periods; 2, 10, 50, and 100 year.</li> </ul>	RCWD will provide monitoring data for model calibration as necessary and available.



**SCOPE OF SERVICES**

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



Mapping	\$32,800	<ul style="list-style-type: none"> <li>• 100 year floodplains will be mapped for the following systems using RCWD LiDAR as the topography source (approximately 43 miles):               <ul style="list-style-type: none"> <li>○ ACD 53-62</li> <li>○ ARJD1</li> <li>○ RCD 2,3,4,5</li> <li>○ RCD8</li> <li>○ Rice Creek</li> </ul> </li> <li>• RCD 1 will be mapped as part of the Rice creek floodplain.</li> <li>• Storm Sewer portions of these systems will only be mapped with approximate inundation polygons, and no city storm sewer areas will be mapped.</li> <li>• Deliverables from this task are a 100 year Floodplain shapefile and BFE shapefile.</li> </ul>	None.
District Wide Modeling Conclusion Report	\$25,000	<ul style="list-style-type: none"> <li>• Develop report similar to previous Montgomery Watson HydroCAD report. This report will outline modeling methods and modeling results. This document will replace the Montgomery Watson report for RCWD purposes such as permitting. The report will also assess the conveyance of the existing system and identify deficiencies, and describe the timing of water movement through the RCWD.</li> <li>• Report will contain peak flows and water surface elevations for all major road crossings throughout the District.</li> </ul>	None.



## SCOPE OF SERVICES

### Task Order No. 2011-06 Rice Creek Watershed District District Wide Modeling Year 3 Implementation



#### Assumption Related to Completing the Scope of Services:

The estimated compensation for the execution of the tasks identified within the “Professional Services Rendered” section of this Task Order is based upon several assumptions, are generally noted within the section titled *Professional Services Rendered*.

#### Deliverables:

The deliverables for this Task Order are generally identified within the description for each specific task. These deliverables generally consist of hydraulic models, modeling reports, GIS data, and metadata. Upon completion of this Task Order, HEI will deliver all data on a CD to the RCWD.

#### Schedule and Compensation:

The anticipated completion date is 1 year after project initiation. HEI has estimated the total cost of services at **\$317,300**.

Task No.	Task Order Name	Probable Amount
1	Data Collection for System Geometry and Topographic Data	\$73,900
2	Geographic Information System Framework	\$55,400
3	Model Development, Calibration, Verification	\$188,000
Total		\$317,300

HEI shall not exceed the amount of **\$317,300** without prior authorization from the Rice Creek Watershed District. HEI reserves the right to move dollars across tasks, while remaining within / below the total amount identified by this Agreement.



**SCOPE OF SERVICES**

**Task Order No. 2011-06  
Rice Creek Watershed District  
District Wide Modeling  
Year 3 Implementation**



**SIGNATURES:**

The services described by this Task Order are being provided in accordance with the Professional Services Agreement between the Rice Creek Watershed District and Houston Engineering dated May 14, 2008, as amended December 8, 2010. This **Task Order** shall be effective **January 01, 2011** as authorized by the signatures of representatives of the Rice Creek Watershed District and Houston Engineering, Inc.

**Rice Creek Watershed District**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Houston Engineering, Inc.**

By: Mark R. Deutschman  
Name: Mark R. Deutschman, Ph.D.  
Title: Vice President  
Date: January 5, 2011

DISTRICT-WIDE MODELING  
Proposed Modeling Implementation Plan and Probable Budget Range for the Rice Creek Watershed District.

Completed	New Items	New Budget Number
Items put on Hold	Items Revised into New tasks due to changes or work completed	(Original Budget Number)
Existing Task with minor edits	Items Expedited	

Red Text are edits to original

Year	Data Collection for System Geometry and Topographic Data		Data Collection for Model Calibration and Verification		Geographic Information System Framework		Specification for Model Development		Model Development, Calibration and Verification						
	Description	Probable Budget Range	Description	Probable Budget Range	Description	Probable Budget Range	Description	Probable Budget Range	Description	Probable Budget Range					
<b>Year 2</b>															
YEAR 2	Complete survey according to FEMA specifications for Clearwater Creek Planning Region (Mostly complete, worked into new task below)	\$76,710	\$95,888	Evaluate shallow groundwater monitoring needs District-wide and implement monitoring program	\$5,000	\$6,250	Primary Purpose Elevation-Storage Curves Create digital bathymetry models for primary lakes within Clearwater Creek Planning Region (Long (2), Round, Pine Tree, Echo, Washington, Lost, Priebe, Fish, Oneka, Otter, Bald Eagle, White Bear, Pine Tree) (5 total)	\$3,000 (\$12,800)	\$3,300 (\$16,000)	Develop written specifics for groundwater model types	\$7,500	\$9,375	Complete hydrologic and hydraulic modeling and mapping of the 1% and <del>2%</del> chance floods within Upper Rice Creek Planning Region (Worked into new task below)	\$55,220	\$69,025
	Complete survey according to FEMA specifications for Hardwood Creek Planning Region (Mostly complete, worked into new task below)	\$41,100	\$51,375	Implement shallow groundwater monitoring	Cost to be included in Monitoring Program		Primary Purpose Elevation-Storage Curves Create digital bathymetry models for primary lakes within Hardwood Creek Planning Region (Egg, Rice, Horseshoe, White Rock) No Lake Maps Available	\$0 (\$5,120)	\$0 (\$6,400)				Complete hydrologic and hydraulic modeling and mapping of the 1% and <del>2%</del> chance flood within Clearwater Creek Planning Regions	\$89,495	\$111,869
	Complete Survey according to FEMA Specifications for the following areas: RW JD1, Anoka Chain of Lakes Connections, (5.9 miles of Detailed survey, and 10 structures for Chain of Lakes)	\$22,200	\$24,420				Enter bridge and culvert data into geodatabase for Upper Rice Creek Planning Region Completed as part of ongoing surveys	\$3,200	\$4,000				Complete hydrologic and hydraulic modeling and mapping of the 1% and <del>2%</del> chance floods within Hardwood Creek Planning Regions	\$54,800	\$68,500
	Quality Assure Surveys by checking previous benchmark and culvert elevations, approximately 9 Surveys to be verified (Areas to be checked include: Lower Rice creek, Lino Culverts, ACD 25, 53-62, ACD 47, Forest Lake, Silver Lake)	\$9,000	\$10,000				Enter bridge and culvert data into geodatabase for Hardwood Creek and Clearwater Creek Planning Regions Completed as part of ongoing surveys	\$6,400	\$8,000				Total Task Order for Existing Conditions Modeling in Both Hardwood and Clearwater Creeks, this does not include mapping	\$99,500	
	Incidental Survey	\$7,000	\$8,000				Primary Purpose Elevation-Storage Curves Create digital bathymetry models for primary lakes within Middle Rice Creek Planning Region (George Watch, Marshan, Reshanau, Rice, Baldwin, Wards, Sherman, Cedar, Golden, Centerville, Peltier) (8 Total) NOTE:Expedited from Year 3	\$4,800 (\$11,520)	\$5,300 (\$14,400)				Estimate the annual runoff volume for dry, normal and wet hydrologic conditions and compute subwatershed loads for the Upper Rice Creek Planning Region (Moved to year 3 GIS Task)	\$12,000	\$15,000
							Create Hydrologically Correct DEM which will allow flow tracing throughout the district, Populate Subwatersheds with standard hydrologic information, for used in modeling and permitting (Need in Year 3)	\$20,000	\$25,000				Estimate the annual runoff volume for dry, normal and wet hydrologic conditions and compute subwatershed loads for the Hardwood Creek and Clearwater Creek Planning Regions (Moved to Year 3 GIS Task)	\$24,000	\$30,000
													Develop and apply eutrophication models for Tier 1 lakes (Turtle and White Bear) and select Tier II lakes (Centerville, Clear, Golden, Sunset)	\$40,000	\$50,000
													<b>Modeling</b>		
													Hydrologic and Hydraulic Modeling for the following systems: RWJD1, Upper Rice Creek (including Clear, Mud, and Howard), Anoka Lake connections u/s Baldwin, ACD 25, update frequency analysis for lakes (20.5 miles detailed, 13.5 miles limited detail)	\$120,000	\$132,000
													<b>Mapping</b>		
													The 100-year floodplains will be mapped for the following systems and put into a standardized format: (Low effort): ACD 31, ACD 46 (Moderate Effort): ACD 15, JD4 (High Effort): 10-22-32, Hardwood, Clearwater, Anoka Chain of Lakes, Upper Rice Creek, ACD 25 (82 miles of mapping)	\$66,740	\$73,414
													Model Connectivity: Creating Model Library and Creating database of output flows	\$5,000	\$5,500
Year 2 Subtotal		\$38,200	\$42,420		\$0	\$0		\$27,800	\$33,600		\$0	\$0		\$191,740	\$210,914
Year 2 Total	Underlined Costs are only costs included in Year 2 Task Order													\$257,740	\$286,934

Attachment A		Year 3 (Tentative)													
YEAR 3	Complete survey according to FEMA specifications for Middle Rice Creek Planning Region <b>NOTE:Expedited to Year 2</b>	\$115,500	\$144,375	Evaluate geomorphic monitoring needs District wide and implement monitoring program. Complete field review of the sites.	\$6,000	\$7,500	Create digital bathymetry models for primary lakes within Middle Rice Creek Planning Region (George Watch, Marshan, Reshanau, Rice, Baldwin, Wards, Sherman, Cedar) <b>NOTE:Expedited to Year 2</b>	\$11,520	\$14,400				Complete hydrologic and hydraulic modeling and mapping of the 1% and <del>2%</del> chance floods within Middle Rice Creek Planning Region <b>NOTE:Expedited to Year 2</b>	\$157,045	\$196,306
	Complete survey according to FEMA specifications for Lower Rice Creek Planning Region	\$83,580	\$104,475	Implement geomorphic monitoring		Cost to be included in Monitoring Program	Primary concern <b>Elevation-Storage Curves</b> Create digital bathymetry models for primary lakes within Lower Rice Creek Planning Region ( <del>Marsden, Sunfish, Karth, Martha, Valentine, Round, Rush, Farrels, Little Johnanna, Little Josephine, Langton, Zimmerman, Jones, Poplar, Silver, Pike, Rush, Spring, East Moore, 3 others, Josephine, Johanna, Long</del> ) (9 total)	\$5,400 (\$28,160)	\$6,000 (\$35,200)				Complete hydrologic and hydraulic modeling and mapping of the 1% and <del>2%</del> chance floods within Lower Rice Creek Planning Region	\$97,510	\$121,888
	Complete survey according to FEMA specifications for the following systems: Lower Rice Creek, ARJD1, RCD2,3,4,5 (22.3 miles of detailed survey)	\$66,900	\$83,625				Enter bridge and culvert data into geodatabase for Middle Rice Creek and Lower Rice Creek Planning Regions <b>Completed as part of ongoing surveys</b>	\$6,400	\$8,000				Estimate the annual runoff volume for dry, normal and wet hydrologic conditions and compute subwatershed loads for the Middle Rice Creek and Lower Rice Creek Planning Regions ( <b>Moved to Year 3 GIS Task</b> )	\$24,000	\$30,000
	Incidental Survey	\$7,000	\$8,000				Generate Runoff volumes and pollutant loadings based on drainage area and land use. Existing Subwatersheds will be utilized. Will be using the stream stats concept or simulation results from SWMM models	\$50,000	\$60,000				Develop and apply eutrophication models for remaining Tier II lakes or other lakes (assume 4)	\$32,000	\$40,000
												Complete Hydrologic and Hydraulic modeling and mapping of the 1% chance floods for the following systems: Rice Creek below Baldwin Lake, 53-62, ARJD1, and RCD 2,3,4,5	\$163,000	\$179,300	
												District Wide Modeling Conclusion Report	\$25,000	\$27,500	
Year 3 Subtotal		\$73,900	\$91,625		\$0	\$0		\$55,400	\$66,000		\$0	\$0		\$188,000	\$206,800
Year 3 Total	Underlined Costs are only costs included in Year 3 Total													\$317,300	\$364,425

Year 2 Rationale:

Will have survey for all planning regions except Lower Rice Creek  
RWJD1 has high interest level because of Bald Eagle Lake TMDL  
Will allow flood plain mapping for areas upstream of Baldwin Lake

Ramifications:

Some areas will be mapped at less detail - meaning no BFE's

Assumptions:

8 hrs to verify each survey  
Verifying survey means checking benchmark elevations and re-shooting 10 to 20 culvert inverts per system.  
6 hrs to create elevation-storage curve per lake  
\$3500/mile of detailed modeling  
\$2500/mile of limited detailed modeling  
Anoka Lakes Frequency Analysis 10 lakesx16 hours  
\$3,000/mile of detailed survey  
Incidental survey is to collect additional (unforseen) if necessary as determined during model development  
Database will be populated with items like % impervious, CN, land cover type, etc. and information from hydrologically corrected DEM  
Datum correction will be applied to survey data if shown necessary by quality assurance review  
A HEC-RAS model will be developed for the mainstem of Rice Creek and the hydrograph inputs for the model will be based on the individual SWMM models

Key Issues for District Consideration

1. Deferring groundwater tasks
2. Deferring water quality modeling of lakes (from TMDL work instead?)
3. How to "populate" annual runoff volumes
4. Primary use of mapping is regulatory use internal to RCWD - FEMA submittal?
5. A HEC-RAS model will be developed for the mainstem of Rice Creek and the hydrograph inputs for the model will be based on the individual SWMM models

Year 2 Deliverables:

Updated Survey Geodatabase with new survey shots  
Modeling Reports (4)  
Floodplain shapefile, BFE shapefile, XS shapefile  
Maps of surveying, modeling, and mapping

# Attachment B

Rice Creek

RCD 3

RCD 2

RCD 5

RCD 5

RCD 4

## Legend

— City Storm Sewer

□ RCWD Subwatersheds

## RCWD Watercourses

### DITCH TYPE

— Open Channel

— Storm Sewer

RCWD Storm Sewer: Approximate Inundation polygon only and elevations.

City Storm Sewer: Pipe system not explicitly modeled or mapped.

## **ITEMS REQUIRING BOARD ACTION**

6. Consider 2011 RCWD Board meeting/workshop calendar

**RICE CREEK WATERSHED DISTRICT – 2011 BOARD OF MANAGERS CALENDAR**

revised 1/6/2011

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
<p>31: <b>New Year's Day-Office Closed</b></p> <p>5: AC Mtg (5:30 pm Lino Lakes CH (LLCH)) Liaison: Mgr Preiner</p> <p>10: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>12: Regular Bd. Mtg. (9 am Shoreview CC)</p> <p>17: <b>MLK Day-Office Closed</b></p> <p>26: Regular Bd. Mtg. (9 am Shoreview CC)</p>	<p>2: AC Mtg (5:30 pm LLCH) Liaison: Mgr Waller</p> <p>7: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>9: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>21: <b>President's Day-Office Closed</b></p> <p>23: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>2: AC Mtg (5:30 pm LLCH) Liaison: Mgr Haake</p> <p>7: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>9: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>?:MAWD Legislative Session (7pm-9 pm Kelly Inn, St. Paul)</p> <p>?:MAWD Legislative Breakfast &amp; Day at the Capitol 7am-9am</p> <p>23: Regular Bd. Mtg. (9 am Shoreview CC)</p>	<p>6: AC Mtg (5:30 pm LLCH) Liaison: Mgr Mastell</p> <p>11: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>13: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>27: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>4: AC Mtg (5:30 pm LLCH) Liaison: Mgr Ogata</p> <p>9: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>11: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>25: Regular Bd. Mtg. (9 am Shoreview CC)</p> <p>30: <b>Mem'l Day Holiday-Office Closed</b></p>	<p>1: AC Mtg (5:30 pm LLCH) Liaison: Mgr Preiner</p> <p>6: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>8: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>22: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>?: MAWD Summer Tour: Nine Mile Creek WD hosting</p>
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
<p>6: <b>NO AC Mtg</b></p> <p>4: <b>Independence Day-Office Closed</b></p> <p>11: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>13: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>27: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>3: AC Mtg (5:30 pm LLCH) Liaison: Mgr Waller</p> <p>8: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>10: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>24: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>7: AC Mtg (5:30 pm LLCH) Liaison: Mgr Haake</p> <p>5: <b>Labor Day Holiday-Office Closed</b></p> <p>12: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>14: Regular Bd.Mtg. &amp; Proposed Budget Hrg (9 am Shoreview CC)</p> <p>28: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>5: AC Mtg (5:30 pm LLCH) Liaison: Mgr Mastell</p> <p>10: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>12: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>26: Regular Bd.Mtg. (9 am Shoreview CC)</p>	<p>2: AC Mtg (5:30 pm LLCH) Liaison: Mgr Ogata</p> <p>7: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>9: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>11: <b>Veteran's Day-Office Closed</b></p> <p>23: <b>NO Regular Bd.Mtg</b></p> <p>24 &amp; 25 Thanksgiving Holiday- Office Closed</p>	<p>7: <b>NO AC Mtg</b></p> <p>2-4:MAWD Annual Mtg (Arrowwood, Alexandria)</p> <p>12: Board Workshop (3:30 pm-5:30 pm RCWD offices)</p> <p>14: Regular Bd.Mtg. (9 am Shoreview CC)</p> <p>28: <b>NO Regular Bd.Mtg.</b></p> <p>23 &amp; 26: Christmas Holiday- Office Closed</p> <p>1/2: New Year's Holiday-Office Closed</p>

Board Workshops held at RCWD offices, Board Meetings held at Shoreview Council Chamber, AC=Advisory Committee, AC meetings held at Lino Lakes City Hall (LLCH)

## **ITEMS REQUIRING BOARD ACTION**

7. Consider Water Quality BMP Cost-Share Applications
  - a. Gena & Kyle Larson – Lakeshore Restoration
  - b. Pamela Deters – Lakeshore Restoration

## MEMORANDUM

### Rice Creek Watershed District

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**Date:** January 6, 2011  
**To:** RCWD Board of Managers  
**From:** Kyle Axtell, Water Resource Specialist  
**Subject:** Water Quality BMP Cost-Share Application

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#### **A10-03 Gena & Kyle Larson**

- Location: 6963 Hickory Circle, Fridley
- Project Type: Lakeshore Restoration, Locke Lake
- Total Eligible Project Cost: \$9,946.20 (ACD estimate)
- RCWD Cost-Share Request: \$7,459.65 (75%)
  - DNR Shoreland Habitat Grant through RCWD: \$5,208.12 (52.4%)*
  - RCWD Water Quality BMP Cost-Share Program: \$2,251.53 (22.6%)*

#### **BACKGROUND**

This project proposes a vegetative stabilization of a shoreline on Locke Lake. Several other lakeshores on Locke Lake were restored in previous years through a DNR Shoreland Habitat Restoration Grant in partnership with the City of Fridley. This project will serve as the final project completed under this DNR grant, which expires on June 30, 2011. Approximately 130 feet of shoreline and 2860 square feet of transitional and upland areas will be included in this project. Locke Lake is not currently listed as impaired, nor is it a Tier I or II RCWD waterbody. However, given the severity of the site in terms of erosion and the potential for restoration, this site easily meets the requirements for program eligibility. This project also continues a larger scope of work completed under the DNR grant.

The Anoka Conservation District estimates the total cost of this project to be \$9,946.20 and has submitted an application to encumber up to \$7,459.65 of cost-share funding for this project, not to exceed 75% of eligible project expenses. This higher level of proposed funding represents only 22.6% of the funds coming from RCWD's Water Quality BMP Cost-Share Program and 52.4% of the funds coming from an existing grant agreement between the RCWD and DNR (i.e. will not affect our budget). If we do not utilize the remaining funds in our DNR grant account, they will revert back to the State's general fund after June 30, 2011.

This proposal was considered by the RCWD Advisory Committee at its meeting held on 01-05-2011. The AC discussed the application and passed a motion recommending that the RCWD Board of Managers approve this project for up to \$7,459.65 in cost-share funding, not to exceed 75% of eligible project expenses.

#### **RECOMMENDATION**

RCWD's Advisory Committee and Staff recommend that the RCWD Board of Managers approve Water Quality BMP Cost-Share funds for Gena & Kyle Larson's lakeshore restoration project.

Proposed motion:

Manager \_\_\_\_\_ moves to approve RCWD Water Quality BMP Cost-Share Contract A10-03 for Gena & Kyle Larson's lakeshore restoration project, up to \$7,459.65, not to exceed 75% of eligible project expenses.



**ANOKA CONSERVATION DISTRICT**  
 16015 Central Ave NE, Suite 103  
 Ham Lake, MN 55304  
 Phone: (763) 434-2030 Fax: (763) 434-2094  
 www.AnokaNaturalResources.com

# MEMO

**To: RCWD Citizen Advisory Committee**  
**From: Nate Zwonitzer, Conservation Specialist**  
**Date: December 28, 2010**  
**Re: Larson cost-share application**

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The following summarizes the cost-share grant request for a shoreline restoration project at the Larson residence on Locke Lake in Fridley:

Project Description: The project is located on the North side of Locke Lake, and is eligible for both RCWD cost share (50%) and DNR shoreline habitat cost share (25%, through RCWD). It will selectively remove undesirable vegetation and expand the buffer to an average depth of 20 feet. The shoreline will be reinforced with biologs and erosion control mats. Existing boulders located along the lakeshore will be re-used to provide additional reinforcement where needed. Some backfill of highly eroded areas will be needed. The buffer planting will consist of a variety of native grasses, shrubs and flowers; providing both water quality and wildlife benefits to Locke Lake.

Eligible Expenses: \$9,946.20 in materials and labor including 10% contingency.

**RCWD/DNR Cost-Share Grant Request:**

Item	Estimated Expense	Max Grant (75%)	Amt Recommended
Materials	\$6,222.00	\$4,666.50	\$4,666.50
Labor	\$2,820.00	\$2,115.00	\$2,115.00
Subtotal	\$9,042.00	\$6,781.50	\$6,781.50
10% Contingency	\$904.20	\$678.15	\$678.15
<b>Total</b>	<b>\$9,946.20</b>	<b>\$7,459.65</b>	<b>\$7,459.65</b>

RCWD Cost Share (50%) = \$4,973.10  
 DNR Shoreline Habitat Cost Share (25%) = \$2,486.55

Staff Notes

Any alterations to the project plan must be approved by ACD to be eligible for reimbursement. Landowner in-kind contribution will be accepted and valued at the discretion of ACD based on task difficulty (\$10-\$20/hr) not to exceed the cost of materials.

Recommendation: **Approve cost-share grant for up to \$7,459.65**

**GINA AND KYLE LARSON, LOCKE LAKE**  
6963 Hickory Circle NE - Fridley - Anoka County



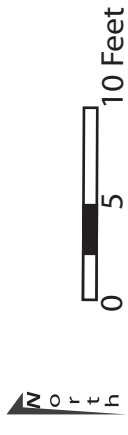
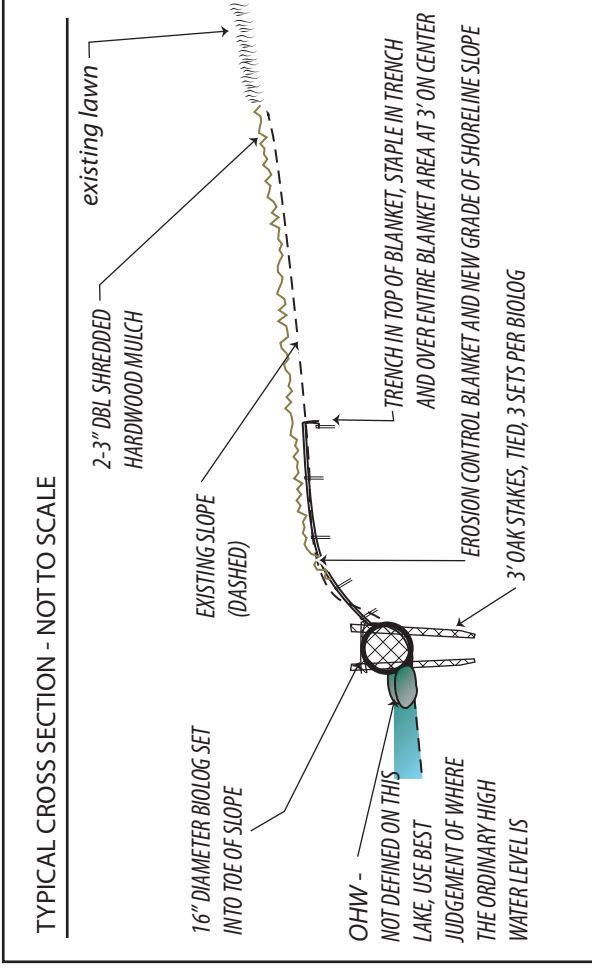
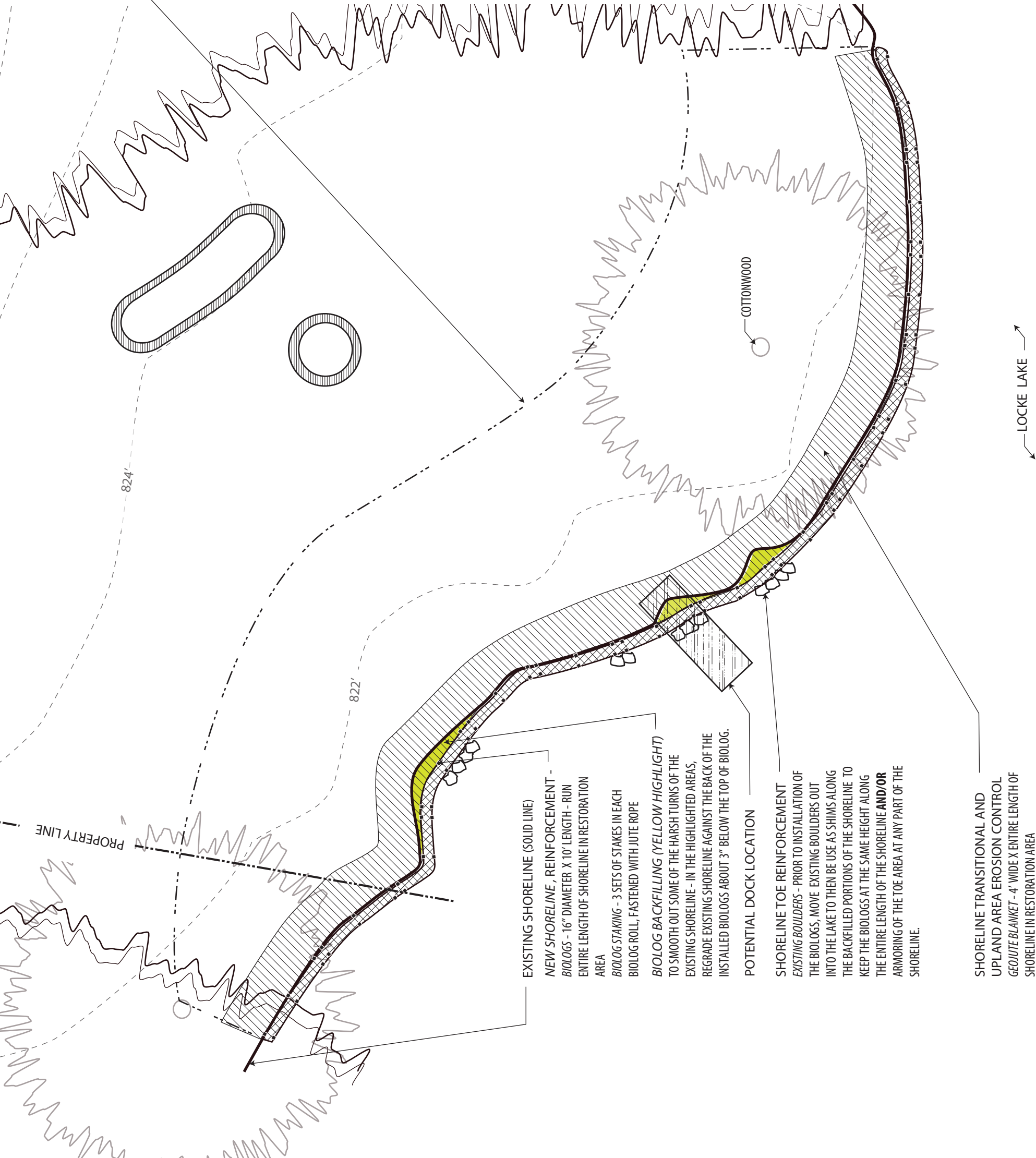
# GINA AND KYLE LARSON, LOCKE LAKE

6963 Hickory Circle NE - Fridley - Anoka County

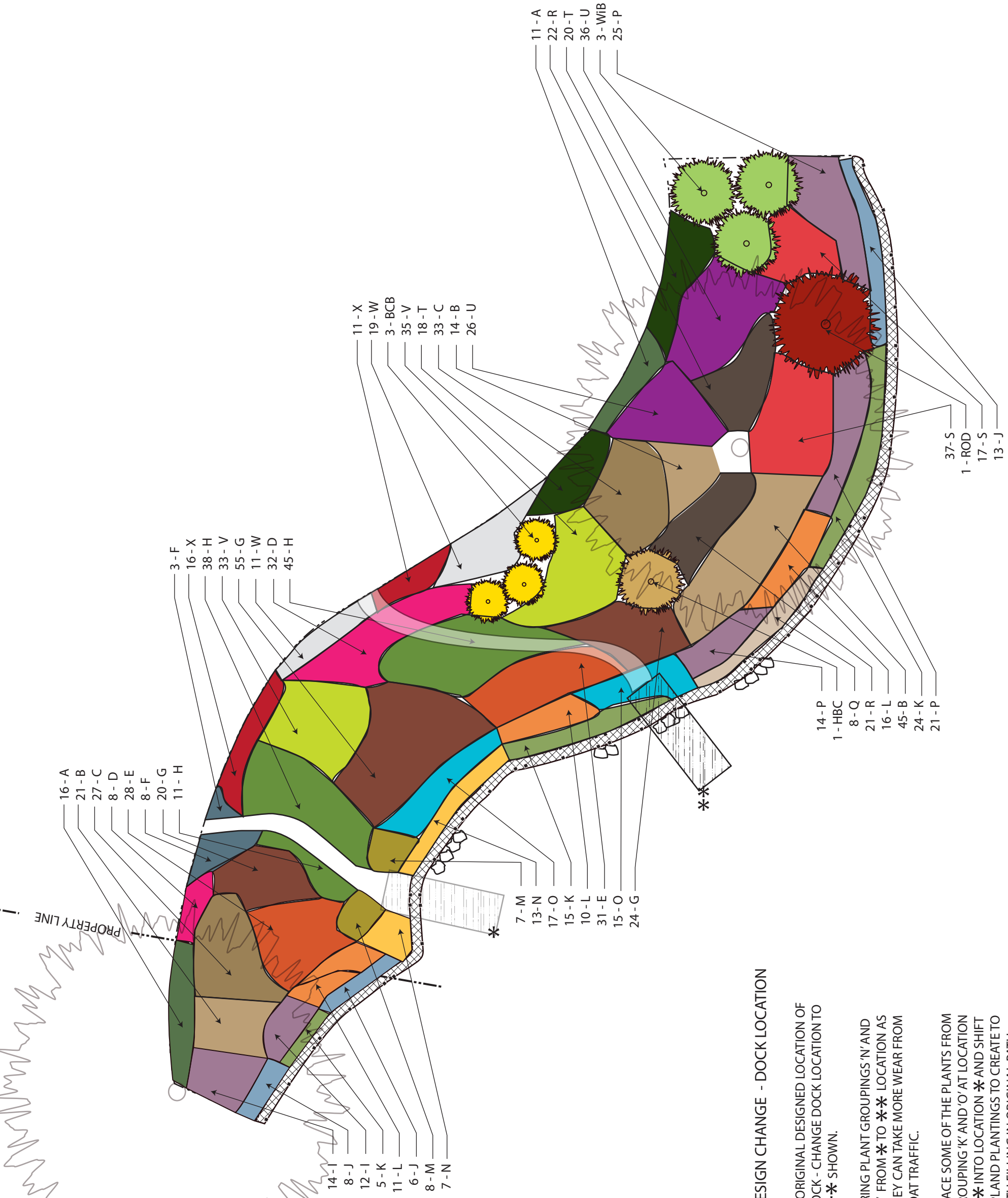


**SHORELINE RESTORATION OUTLINE PREPARATION NOTES -**

1. MARK PERIMETER OF SHORELINE RESTORATION AREA.
2. USE AN AQUATIC SAFE (SHOREKLEAR) HERBICIDE TO KILL EXISTING TURFGRASS AND INVASIVE VEGETATION - SOME OF THE PLANTS AT EACH EDGE OF THE RESTORATION CONTAIN SEVERAL QUALITY NATIVE SPECIES (MILKWEED, BLUE VERVAIN, SEDGES) WHERE A SELECTIVE, SPOT SPRAY APPLICATION CAN BE CONDUCTED.
3. AFTER WAITING A MINIMUM OF ONE WEEK AFTER HERBICIDE APPLICATION, INSTALL THE COMPONENTS CALLED OUT ON THE PLAN (BIOLOGS, STAKING, SLIGHT REGRADING OF CUT ALONG SHORELINE, EROSION CONTROL BLANKET, ETC.).
4. APPLY DOUBLE SHREDDED HARDWOOD MULCH TO THE ENTIRE AREA AT 2-3" DEPTH. ONLY MULCH WHERE IT WILL NOT WASH INTO LAKE (DEPENDING ON FINAL SLOPES THE MULCH LINE COULD END WITHIN A COUPLE FEET OF BACK OF BIOLOG).
5. SITE IS READY TO BE PLANTED - PLANT AT AN AVERAGE SPACING OF 18" FROM RESTORATION OUTLINE TO JUST BEHIND BIOLOG. PLANT INTO EROSION CONTROL BLANKET BY SPREADING FIBER WEAVE ENOUGH TO PLACE A PLANT PLUG INTO.



<b>SHORELINE RESTORATION: SITE PREP AND GRADING</b>	
Contact:	LARSON RESIDENCE 6963 Hickory Circle NE Fridley, MN
District:	Rice Creek Watershed District
Date:	08/20/10
Designer:	Metro Conservation Districts in Association with Anoka Conservation District
Sheet 2 of 4	



**DESIGN CHANGE - DOCK LOCATION**

- \* ORIGINAL DESIGNED LOCATION OF DOCK - CHANGE DOCK LOCATION TO \*\* SHOWN.

BRING PLANT GROUPINGS 'N' AND 'M' FROM \* TO \*\* LOCATION AS THEY CAN TAKE MORE WEAR FROM BOAT TRAFFIC.

PLACE SOME OF THE PLANTS FROM GROUPING 'K' AND 'O' AT LOCATION \*\* INTO LOCATION \* AND SHIFT UPLAND PLANTINGS TO CREATE TO PATH FILLING IN ORIGINAL PATH

DESIGNED.

**SHORELINE RESTORATION:  
PLANTING PLAN**

Contact: LARSON RESIDENCE  
6963 Hickory Circle NE  
Fridley, MN

District: Rice Creek Watershed District  
Date: 08/20/10

Designer: Metro Conservation Districts in  
Association with Anoka  
Conservation District





## Water Quality BMP Cost-Share Program Project Screening Form

<b>Project/Landowner:</b> Gina and Kyle Larson	
County: Anoka	BMP Type(s): Shoreline Restoration
Application Date:	BMP Effective Life: 5 years
Violation or Permit Requirement: No	Reviewer: Nate Zwonitzer

Projects are screened for potential grant eligibility based on the following criteria. (0 = low, 10 = high)

1. Is the project riparian to a lake, stream, ditch, or protected waters wetland (PWW)?  
 Yes  (5 points)    No  (0 points)
  
2. Is the project tributary to a PCA-listed impaired water (not mercury) or a RCWD Tier I or Tier II lake?  
 Yes – Direct Connection  (7 points)    Yes – Within Subwatershed  (3 points)    No  (0 points)
  
3. **Water Quality Improvement:** Improves and protects water quality through implementation of Best Management Practices (BMPs).  

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input checked="" type="checkbox"/> 9	<input type="checkbox"/> 10
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 Comments: \_\_\_\_\_
  
4. **Surface Water Rate and Volume Control:** Implements controls to reduce and/or minimize the rate and volume of water that drains off of the property.  

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
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 Comments: \_\_\_\_\_
  
5. **Erosion and Sediment Control:** Implements controls that minimize erosion and/or sedimentation to downstream waters.  

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
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 Comments: \_\_\_\_\_
  
6. **Wildlife Habitat Improvement:** Creates or improves wildlife habitat through native plantings or other restoration efforts.  

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input checked="" type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
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 Comments: \_\_\_\_\_
  
7. **Public Outreach:** Willingness of applicant to allow signage, tours and site visits. Publicly visible site. Diversity of practices.  

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
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 Comments: \_\_\_\_\_

**Total Score:** 37

**Minimum Eligibility = 31**

**MEMORANDUM**  
**Rice Creek Watershed District**

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**Date:** January 6, 2011  
**To:** RCWD Board of Managers  
**From:** Kyle Axtell, Water Resource Specialist  
**Subject:** Water Quality BMP Cost-Share Application

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**R10-16 Pamela Deters**

- Location: 5761 Lake Avenue, White Bear Township
- Project Type: Lakeshore Restoration, Bald Eagle Lake
- Total Eligible Project Cost: \$2,722.95 (RCD estimate)
- RCWD Cost-Share Request: \$1,361.48 (50%)

**BACKGROUND**

This project proposes stabilization of a 46 linear foot shoreline on Bald Eagle Lake, a Tier I waterbody that is also impaired for excessive nutrient loading (total phosphorus). The existing shoreline exhibits active erosion despite the presence of rock riprap. Native vegetation will be installed within and around the riprap in addition to the creation of a 10' upland buffer to reduce overland flow rate, erosion potential and improve treatment of runoff from the property prior to its discharge into Bald Eagle Lake. Wildlife habitat improvement will also be a secondary benefit of altering this existing rock riprap shoreline.

The Ramsey Conservation District estimates the total cost of this project to be \$2,722.95 and has submitted an application to encumber up to \$1,361.48 in cost-share funding for this project, not to exceed 50% of eligible project expenses.

This proposal was considered by the RCWD Advisory Committee at its meeting held on 01-05-2011. The AC discussed the application and passed a motion recommending that the RCWD Board of Managers approve this project for up to \$1,361.48 in cost-share funding, not to exceed 50% of eligible project expenses.

**RECOMMENDATION**

RCWD's Advisory Committee and Staff recommend that the RCWD Board of Managers approve Water Quality BMP Cost-Share funds for Pamela Deters' lakeshore restoration project.

Proposed motion:

Manager \_\_\_\_\_ moves to approve RCWD Water Quality BMP Cost-Share Contract R10-16 for Pamela Deters' lakeshore restoration project, up to \$1,361.48, not to exceed 50% of eligible project expenses.



1425 Paul Kirkwold Dr.  
Arden Hills, MN 55112  
Telephone 651 / 266-7270  
Fax 651 / 266-7276  
[www.ramseyconservation.org](http://www.ramseyconservation.org)

December 23, 2010

**Project:**

Pamela Deters  
5761 Lake Avenue  
White Bear Township, MN 55110

**Project Overview:**

The proposed 500 sq-ft (46 lin-ft) shoreline stabilization project will utilize the existing rip rap and incorporate native plants and erosion control products to reduce the erosion and create a 10' deep buffer. The use of native plants will create a low maintenance filter that will treat overland flow before it reaches Bald Eagle Lake which is a RCWD Tier 2 water body, and PCA impaired for Biological Indicators.

**Funding Request:**

Material: \$1,089.18  
Labor: \$1,633.77  
Total: \$2,722.95  
Cost Share Request: \$1,361.48

**Recommendation:**

It is my recommendation that this project be awarded the cost share of \$1,361.48, or 50% of eligible costs whichever is less. The project will help filter water before reaching Bald Eagle Lake and it will also stabilize the minor sloughing on the bank.

The homeowners are interested in completing the project in 2011 and are planning to do a majority of the work themselves.

Sincerely,

Ryan Johnson  
Urban BMP Specialist  
Ramsey Conservation District



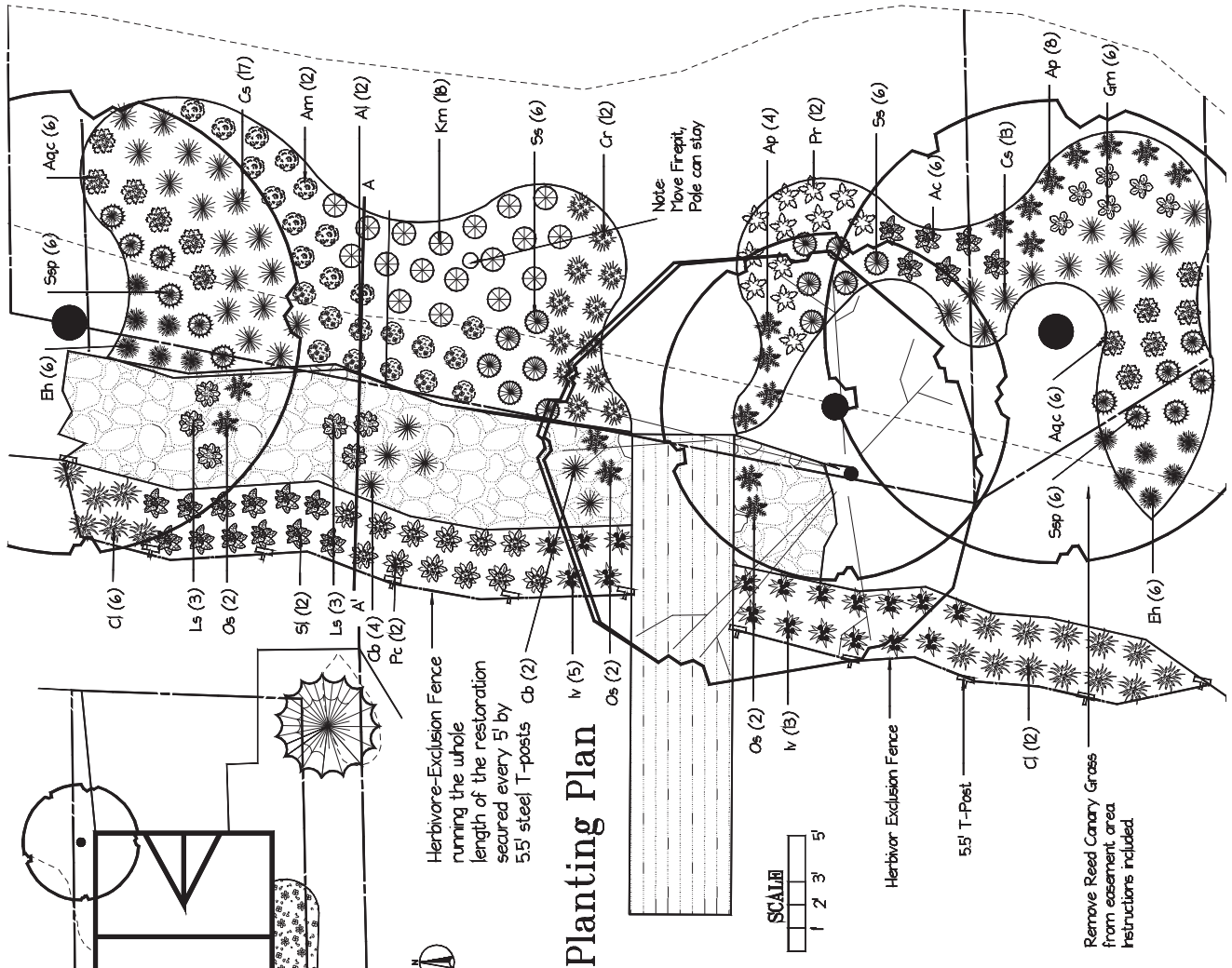
Shoreline Restoration  
500 sq-ft, 46 lin-ft

Pam Deters  
5761 Lake Ave  
WBT, RCWD

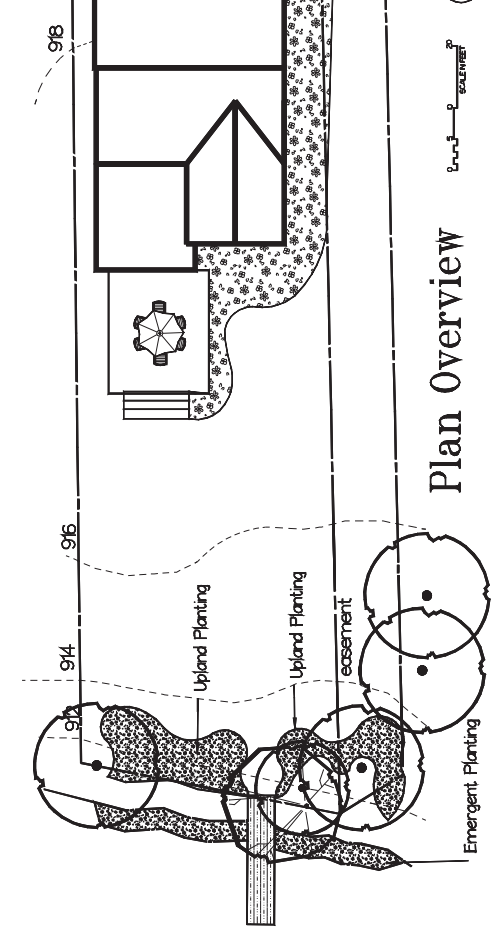


0 10 20 Feet



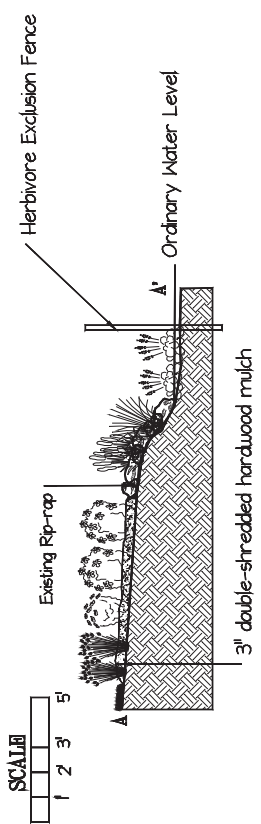


### Planting Plan



### Plan Overview

### Shoreline Restoration Cross-section



<b>Shoreline Restoration</b>		revision	First
Pam Deters 5761 Lake Ave. client: White Bear Township, MN 55110		date	September 1st, 2010
scale	Varies	drawn by	Ramsey Watershed District
drawn by	Ramsey Watershed District	funded by	Rice Creek Watershed District
		drawing #	1 of 1

## Ramsey Conservation District COST ESTIMATE

Pam Deters  
5761 Lake Ave.  
White Bear Township, MN 55110  
Shoreline Restoration

Total Plants : 246  
LF: 46  
SF: 500  
Date: 9/1/2010

### COST/LABOR ESTIMATE

Materials	Qty	Unit	Unit Cost	Amount	Potential Source
Site Prep (Chemical app. - eg. Rodeo/Roundup)	12	ounces	\$ 2.50	\$ 30.00	Beisswnger's, Fair's, Dundee
Herbivore-Exclusion Fence (4' green plastic safety fence)	50	lf	\$ 0.36	\$ 18.00	Menards, Homedepot, Lowes
T-Post (5.5' steel t-post)	11	each	\$ 3.00	\$ 33.00	Menards, Homedepot, Lowes
Twice-Shredded Hardwood Mulch (3" depth)	3.5	cy	\$ 27.00	\$ 94.50	Central Wood Prd, NRG, MN Mulch & Soil
Edging (Paver: 3" x 4" x 12")	137	each	\$ 1.14	\$ 156.18	Menards, Homedepot, Lowes
<b>MATERIALS SUBTOTAL</b>				<b>\$ 331.68</b>	
<b>Plants</b>					
Native Aquatic Plants	60	4" pot	\$ 4.50	\$ 270.00	Native Plant Supplier
Native Plug - (1"- 6 Pack)	246	each	\$ 1.25	\$ 307.50	Native Plant Supplier
<b>PLANT SUBTOTAL</b>				<b>\$ 577.50</b>	
<b>Misc</b>					
Mulch Delivery (14cy/load)	1	job	\$ 80.00	\$ 80.00	Central Wood Prd, NRG, MN Mulch & Soil
Plant Delivery	1	job	\$ 100.00	\$ 100.00	Native Plant Supplier
<b>MISC SUBTOTAL</b>				<b>\$ 180.00</b>	
				Materials \$ 331.68	
				Plants \$ 577.50	
				Misc \$ 180.00	
				Materials Estimate \$ 1,089.18	
				Labor Estimate \$ 1,633.77	
				<b>Project Estimate \$ 2,722.95</b>	<b>1,361.48</b>
				:-10% \$ 2,450.66	
				:+10% \$ 2,995.25	

# Ramsey Conservation District PLANT SCHEDULE

Pam Deters

5761 Lake Ave.

White Bear Township, MN 55110

Shoreline Restoration

Total Plants: 246

LF: 46

SF: 500

Date: 9/1/2010

## Emergent Plants

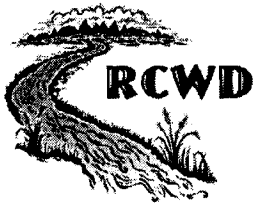
Qty:	Key:	Scientific:	Common:	Native Habitat:	Flower:	Period:	Height:	Spacing:
18	Cl	Carex lacustris	Lake Sedge	marsh, swamp, lake edge	Green	May-June	24-36"	18"
18	Iv	Iris versicolor	Blue Flag Iris	marsh, peatland, lake edge	Blue	June-July	24-36"	18"
12	Pc	Pontederia cordata	Pickereelweed	lake edge, marsh	Violet	July-Aug	24-36"	18"
12	Sl	Sagittaria latifolia	Common Arrowhead	lake edge, marsh	White	July-Aug	24-42"	18"

## Plants Tucked into Rocks

Qty:	Key:	Scientific:	Common:	Native Habitat:	Flower:	Period:	Height:	Spacing:
<b>12</b>								
<b>Flowers</b>								
6	Ls	Lobelia siphilitica	Great Blue Lobelia	marsh, peatland, swamp	Blue	July-Oct	20-30"	18"
6	Os	Onoclea sensibilis	Sensitive Fern	forest, swamp	Green		12-24"	18"
<b>6</b>								
<b>Grasses</b>								
6	Cb	Carex bebbii	Bebb's Sedge	marsh, swamp, lake edge	Green	May-June	24-36"	18"

## Upland Plants

Qty:	Key:	Scientific:	Common:	Native Habitat:	Flower:	Period:	Height:	Spacing:
<b>84</b>								
<b>Flowers</b>								
12	Am	Anaphalis margaritacea	Pearly Everlasting	prairie, savanna, woodland	White	July-Sept	6-18"	18"
12	Al	Aster laevis	Smooth Aster	prairie, savanna, woodland	Blue	July-Oct	20-30"	18"
12	Cr	Campanula rotundifolia	Harebell	prairie, savanna, woodland	Blue	June-Sept	16-24"	18"
12	Ap	Adiantum pedatum	Maidenhair Fern	forest, swamp	Green		12-18"	18"
12	Aqc	Aquilegia canadensis	Columbine	woodland, forest	Red	May-July	24-36"	18"
6	Ac	Asarum canadense	Wild Ginger	forest	Red	May	6"	18"
6	Gm	Geranium maculatum	Wild Geranium	savanna, woodland, forest	Violet	May-June	12-24"	18"
12	Pr	Polemonium reptans	Jacob's Ladder	forest, woodland	Blue	May-June	18"	18"
<b>84</b>								
<b>Grasses</b>								
30	Cs	Carex sprengeii	Sprengel's Sedge	woodland, forest	Green	June-July	12-24"	18"
12	Eh	Elymus hystrix	Bottlebrush Grass	forest, woodland, lake edge	Green	June-July	24-48"	18"
18	Km	Koeleria macrantha	June Grass	prairie, savanna, woodland	Green	June-July	12-24"	18"
12	Ss	Schizachyrium scoparium	Little Bluestem	prairie, savanna, woodland	Amber	July-Sept	18-36"	18"
12	Ssp	Stipa spartea	Porcupine Grass	prairie, savanna, woodland	Purple	June-July	36-48"	18"



## Water Quality BMP Cost-Share Program Project Screening Form

Project / Landowner Name: Pamela Deters	
Project Address: 5761 Lake Avenue	City: White Bear Township
County: <input type="checkbox"/> ANOKA <input checked="" type="checkbox"/> RAMSEY <input type="checkbox"/> HENNEPIN <input type="checkbox"/> WASHINGTON	BMP Type(s): Shoreline
Application Date: 23-Dec-10	BMP Effective Life: 5
Violation or Permit Requirement: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Reviewer: Ryan Johnson

Projects are screened for potential grant eligibility based on the following criteria. (0 = low, 10 = high)

1. a. Is the project tributary to a PCA-listed impaired water (not mercury) or a RCWD Tier I or Tier II waterbody?  
 0 (NO)                       5 (YES, within subwatershed)                       6 (YES, direct connection)
- b. If NO, is the project tributary to a lake, stream, ditch, or DNR-Protected Water Wetland (PWW)?  
 0 (NO)                       3 (YES, within subwatershed)                       6 (YES, direct connection)

2. **Water Quality Improvement:** Improves and protects water quality through implementation of Best Management Practices (BMPs).

0     1     2     3     4     5     6     7     8     9     10

Comments: Shoreline stabilization and native buffer on Bald Eagle Lake

3. **Surface Water Rate and Volume Control:** Implements controls to reduce and/or minimize the rate and volume of water that drains off of the property.

0     1     2     3     4     5     6     7     8     9     10

Comments: \_\_\_\_\_

4. **Erosion and Sediment Control:** Implements controls that minimize erosion and/or sedimentation to downstream waters.

0     1     2     3     4     5     6     7     8     9     10

Comments: Incorporating native plants into and around existing rock shoreline to stop the continuing erosion

5. **Wildlife Habitat Improvement:** Creates or improves wildlife habitat through native plantings or other restoration efforts.

0     1     2     3     4     5     6     7     8     9     10

Comments: \_\_\_\_\_

6. **Public Outreach:** Willingness of applicant to allow signage, tours and site visits. Publically visible site. Diversity of practices.

0     1     2     3     4     5     6     7     8     9     10

Comments: \_\_\_\_\_

Total Score: 36

Minimum Eligibility = 30

## **ITEMS REQUIRING BOARD ACTION**

8. Consider Check Register dated 1/12/2011, in the amount of \$107,545.74 prepared by HLB Tautges Redpath

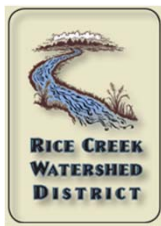
Rice Creek Watershed District  
Check Register  
December 23, 2010 - January 12, 2011  
To Be Approved at January 12, 2011 Board Meeting

Check #	Date	Payee	Description	Amount	
17261	12/28/10	Assurant Employee Benefits	Employee Benefits	\$438.16	Issued 12/28/10
17262	12/28/10	Dell Business Credit	Equipment/Computer	1,744.64	Issued 12/28/10
17263	12/28/10	Emmons & Olivier Resources	November Engineering Expense	3,316.50	Issued 12/28/10
17264	12/28/10	Integra Telecom, Inc.	Telecommunications	472.31	Issued 12/28/10
17265	12/28/10	MEPT Blaine LLC	January, 2011 Rent	5,769.18	Issued 12/28/10
17266	12/28/10	Peterson Contracting, Inc.	Construction Expense	73,229.71	Issued 12/28/10
Dir.Dep.	01/14/11	Kyle J. Axtell	01/14 Payroll	1,227.16	
Dir.Dep.	01/14/11	David W. Bauer	01/14 Payroll	1,474.66	
Dir.Dep.	01/14/11	Philip J. Belfiori	01/14 Payroll	2,372.60	
Dir.Dep.	01/14/11	Dawn V. Pape	01/14 Payroll	756.34	
Dir.Dep.	01/14/11	Matthew J. Kocian	01/14 Payroll	1,461.14	
Dir.Dep.	01/14/11	Elizabeth M. Hosch	01/14 Payroll	1,493.64	
Dir.Dep.	01/14/11	Thomas E. Schmidt	01/14 Payroll	1,867.35	
Dir.Dep.	01/14/11	Theresa M. Stasica	01/14 Payroll	1,766.75	
Dir.Dep.	01/14/11	Nicholas A. Tomczik	01/14 Payroll	2,077.52	
EFT	01/14/11	Internal Revenue Service	01/14 Federal Withholding	4,302.24	
EFT	01/14/11	Minnesota Dept. of Revenue	01/14 State Withholding	777.68	
EFT	01/14/11	ING Retirement Services	01/14 Deferred Compensation	260.00	
EFT	01/14/11	PERA	01/14 PERA	2,738.16	
<b>Total</b>				<b>\$107,545.74</b>	

# **ITEMS FOR DISCUSSION AND INFORMATION**

1. District Wide Modeling Project Update

# District Wide Modeling Project Update

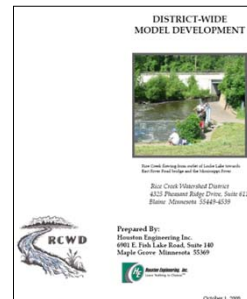


Board Meeting  
January 12, 2011



## Project Overview


- What is a “District Wide Model”?
  - Functional Requirements Document, Oct. 2008
- Major Goal: Floodplain Mapping and Flood Elevations for entire District
- Hydrologic and Hydraulic Models
- Survey
- Modeling Specifications
- GIS work



## Project Costs

<b>YEAR 1</b>	<b>\$352,576</b>
LiDAR Acquisition	
Functional Requirements Document	
Survey Upper Rice Creek	
Modeling Specifications, Monitoring Plan	
Hardwood and Clearwater Creek Modeling and Mapping	
Subwatershed Delineation	
<b>YEAR 2</b>	<b>\$250,000</b>
Modeling and Mapping for Rice Creek, ACD 25, RWJD1	
Lake Frequency Analysis	
Survey of Chain of Lakes, RWJD1, ACD25	
Hydrologically correct DEM and Hydro Viewer	
<b>YEAR 3</b>	<b>\$317,000</b>
Year 3 Implementation (estimated)	
<b>Total:</b>	<b>\$919,576</b>

Probable Budget Range Identified in Functional Requirements Document: \$1,256,620 to \$1,569,196




## Protecting Your Investment

Documentation and Data Reuse

- Models (Modeling Specifications)
- Survey Data (Survey Geodatabase)
- GIS Data (Metadata, storage)
- Access to Data (Permit Viewer, Drainage Modernization, etc.)

We are making this as much as possible part of the “normal work flow.” The structure you will see is derived specifically from doing this project

**Maintain Investment, Save Money (don’t redo work, share data with partners)**



## Products

- Hydrology
  - Peak Flows (Rainfall and Snowmelt)
  - Hydrographs
  - Continuous Simulation
  - Model inputs
- Hydraulics
  - Water Levels (Base Flood Elevations)
  - Velocities
  - Geometry, culverts, floodplains
- Water Quality
  - Loads
  - Volumes
- Topographic data (e.g., LiDAR)



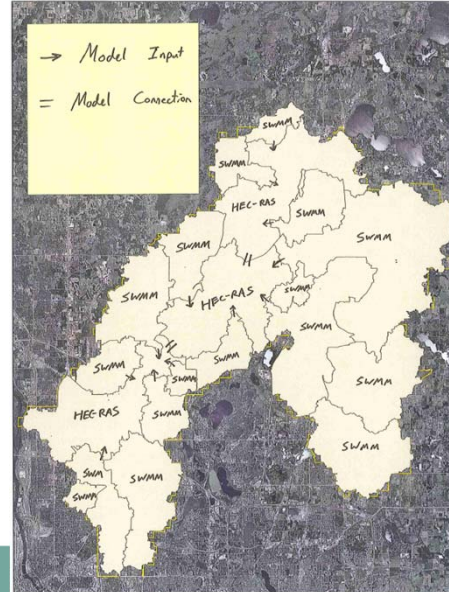
## Vernacular

- Hydrology = flow rates, runoff volumes
- Hydraulics = elevations, velocities
- Often hydrology model results plug into hydraulics models to get hydraulic model results
- GIS means Geographic Information System – electronic method for storing spatial data



## Modeling Structure

- Hydraulic model for Rice Creek and Lakes (HEC-RAS Corps of Eng. model – public domain)
- Hydrology models for contributing subwatersheds (e.g. ACD 31) (EPA stormwater management model – public domain)



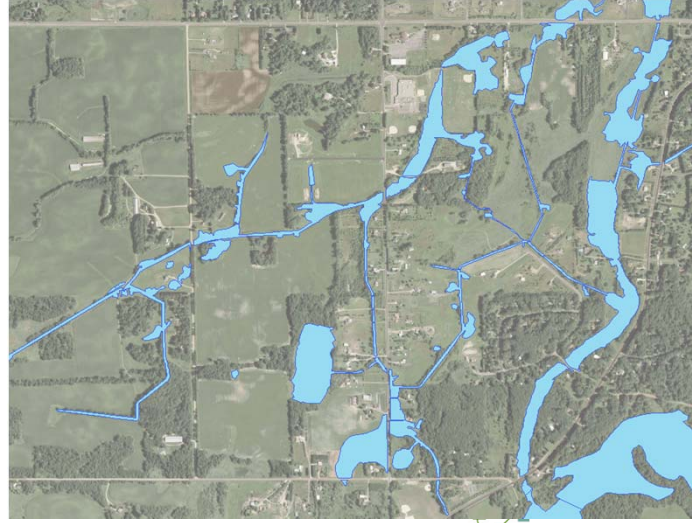
## Why this approach

- GIS stores inputs and outputs (see in viewers)
- Public domain means transferable among proprietary models
- Public domain means industry standards (others can use)
- Flexibility – database of hydrology results can feed hydraulics model



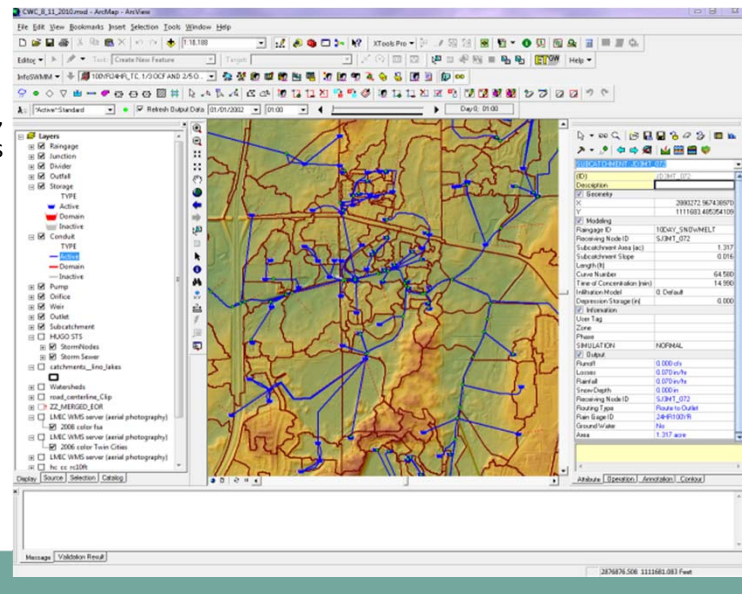
## Floodplain Mapping

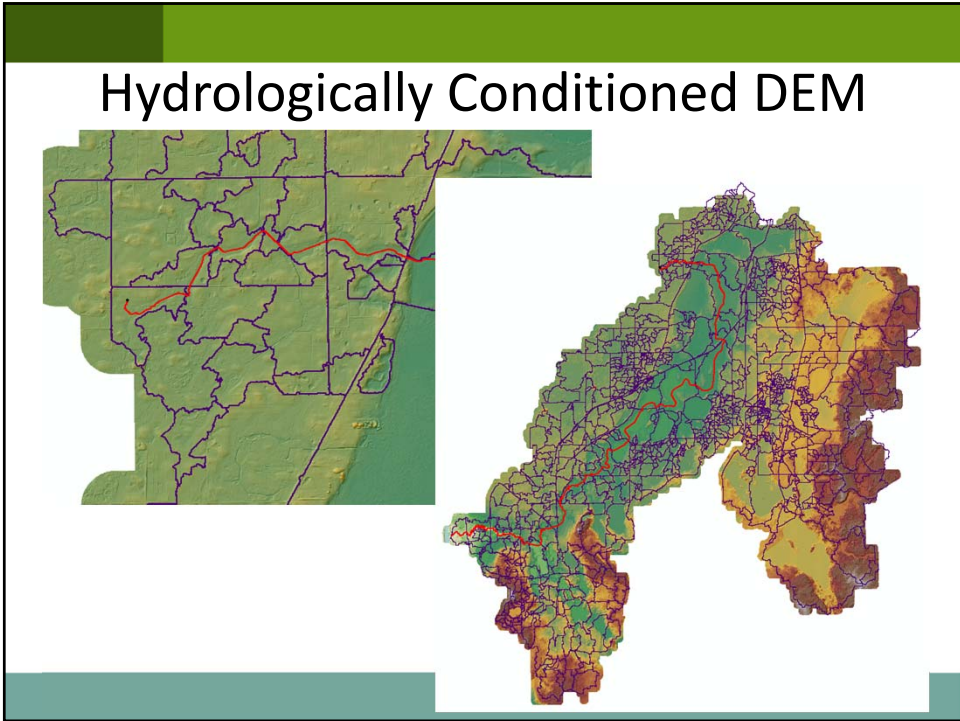
- Example Shown: ACD 31



## Hydrology Model Detail


- Clearwater Creek shown
- Very fine scale, subwatersheds as small as 2 acres





## Products: Survey Geodatabase

- All Survey Data now stored in consistent format
- Now clearly see who, when, and in what datum the survey points were collected

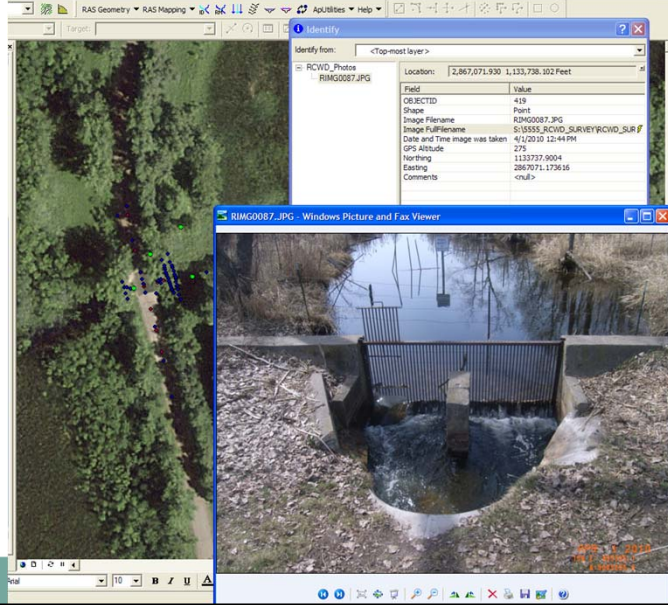


Identify from: <Top-most layer>

Field	Value
OBJECTID	336
Shape	Point
NAME	1000
NORTHING	1133747.809
EASTING	2867094.309
ELEVATION	884.345
FEAT_TYPE	
FEAT_CODE	36X49 ARCH CON PIPE
DESC_	
NOTE_	
ELEV_ADJ	2007 ADJ
SI_UNITS	US SURVEY FEET
V_DATUM	NAD 83
H_DATUM	NAD 83
PROJ_NO	
PROJ_NAME	
CRG	HEI
SURVEYOR	DKO
SURVEY_DAT	6/12/2008
HZ_PREC	0
VT_PREC	0
PRG	0
MAX_POOP	0
MAX_VOOP	0
MIN_SATS	0
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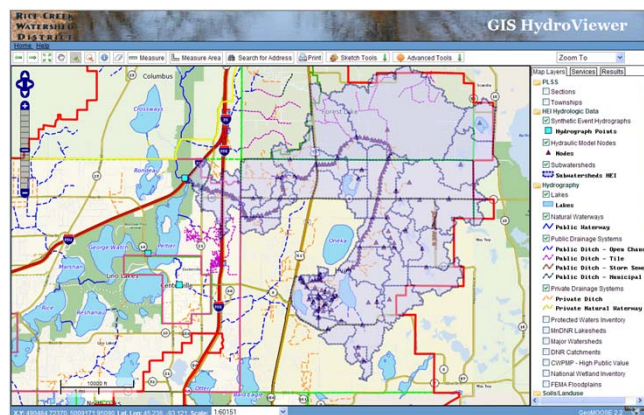
## Products: Survey Geodatabase

- Geo-referenced photos
- Slowly building a database of photos throughout the District
- Valuable in many areas of District activity



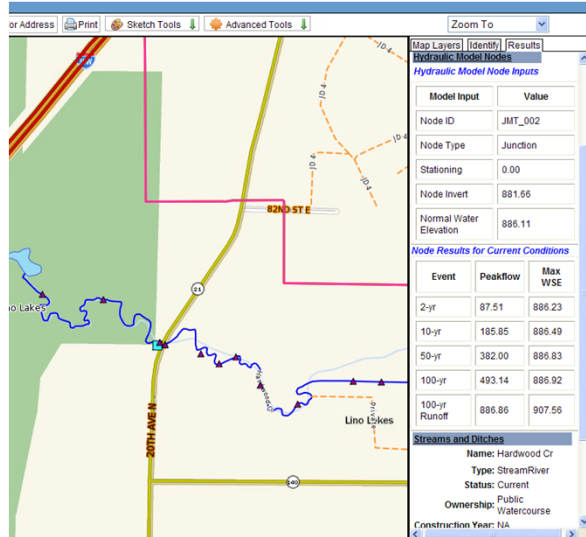
## Products: HydroViewer

- HydroViewer very similar to existing Permit Mapper
- Will allow easy access to model inputs and outputs



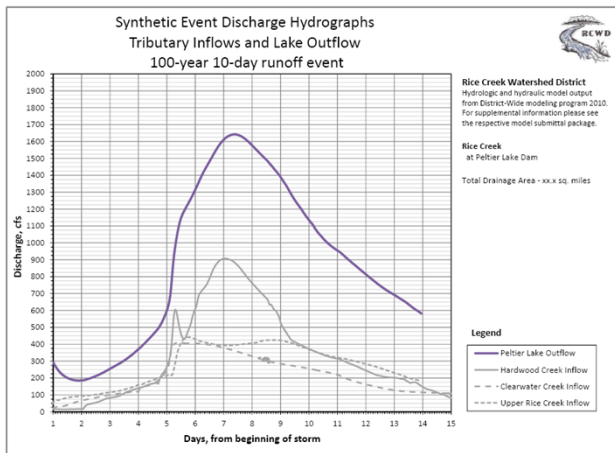
## Products: HydroViewer, cont.

- Each Model Node will be displayed
- Each Subwatershed will also be shown



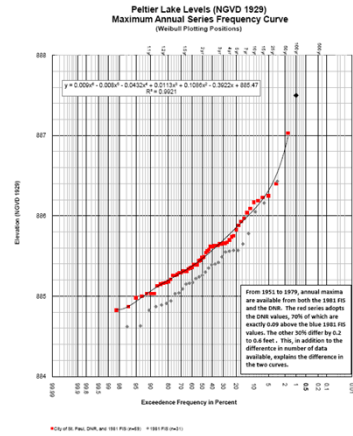
## Products: HydroViewer, cont.

- Contributing Hydrographs at a given location



## Lake Frequency Analysis

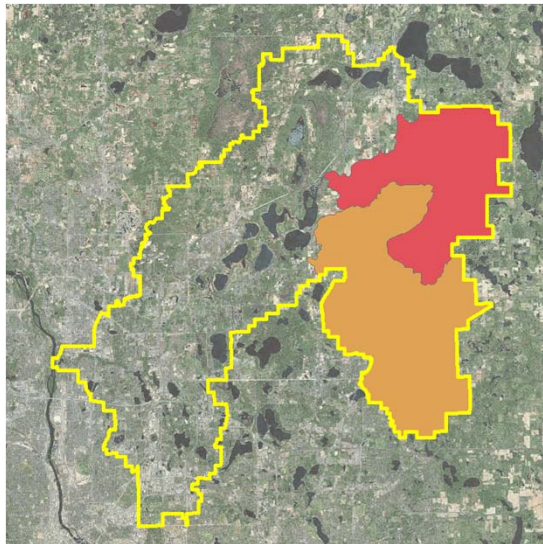
- Daily elevations on lakes
- Flood elevations on lakes
- Need for modeling other areas (downstream boundary)



Outlet: 137.5-foot dam @ 854.63 (NGVD09), 854.79 (NAVD88) Figure 10b

## Watershed (Water Quality) Modeling

- P8 models exist for Hardwood and Clearwater Creek



## Project Benefits

- Survey Geodatabase
  - Quickly find elevations, culvert sizes, etc.
  - Photos were available
- Floodplain Mapping
  - Identify Problem Areas
  - Aid in Permitting
- Base Flood Elevations
  - Aid in Permitting
  - Cities can use when looking at development
- Modeling Specifications
  - Protect Investment
  - Document ready for future needs/proposals



## Project Benefits

- LiDAR data is very valuable tool in many areas (permitting, modeling, plans)
- Permit Review
  - Reasonable Results?
  - Check Inputs/Assumptions
- Aid in Maintenance of District Facilities
- Identify Volume Control Needs / Rule Evaluation



## Example Benefits

- Ability to assess impacts of any project or change in watershed rather quickly (e.g. Rice Lake Weir)
- Drainage System Repair Reports (models available for upcoming repairs, e.g. RWJD1, ACD25)
- District and Cities can use the models for capital project design (e.g. Rondeau Lake, Hugo CIP)



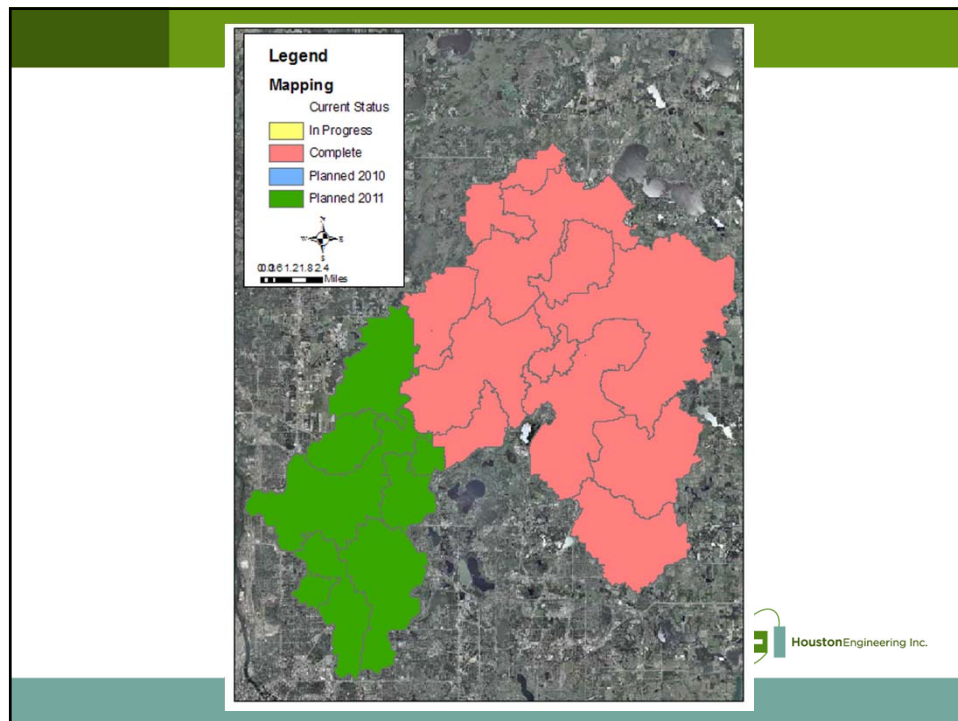
## Example Benefits

- Cities can use model for comprehensive local water plans
- Aid in TMDL completion, by estimating volumes and loads
- BMP / project specific design can benefit from the models (Moore Lake/E2)
- Drainage system official profiles available electronically

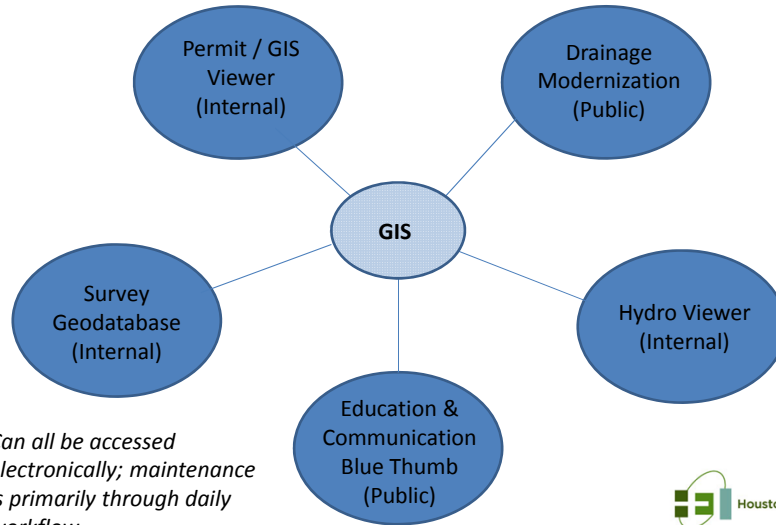


## Current Status

- Hydraulic & Hydrologic Modeling and Mapping is now complete upstream of Baldwin Lake
- Year 3 work will be modeling and mapping Lower Rice Creek
  - This includes models of Rice Creek below Baldwin Lake, ACD 53-62, ARJD1, and RCD 2, 3, 4, 5 and 8
- Large amount of survey work on ACD 53-62 and Lower Rice Creek
- Also GIS work and a modeling conclusion report (replace Montgomery Watson Report)
- Estimated cost for Year 3 is \$317,000



## Accessing and Managing RCWD Data



## Going Forward

### Maintenance

- Work into everyday workflow
  - Survey, Drainage Modernization, Subwatersheds, etc.
- District Project Procedures Manual



Questions?

