455 HAYWARD AVENUE, OAKDALE, MINNESTOA 55082 Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

Regular Meeting of the Middle St. Croix Watershed Management Organization **Bayport Public Library** Thursday, September 9th, 2021 6:00PM

- 1. Call to Order 6:00PM
 - a. Approval of Agenda
- 2. Approval of Minutes
 - a. Draft minutes August 12th, 2021 pg. 1-10
- 3. Treasurer's Report
 - a. Report of savings account, assets for September 9th, 2021
 - **b.** Approve payment of bills for September 9th, 2021
- 4. Public Comment
- 5. Old Business
- 6. New Business
 - a. Baytown-Oak Park Heights Drainage Issue Summary pg. 11-21
 - b. Permit Review Compliance pg. 22-23
 - c. 2022 MSCWMO-WCD Water Monitoring Estimate pg. 24
- 7. Grant and Cost Share Applications
- 8. Plan Reviews/Submittals
 - a. Plan Review and Submittal Summary pg. 25-30
 - i. 200 Chestnut-INFORM
 - ii. Ruprecht Retaining Wall-ACTION
 - iii. Burton Retaining Wall and Patio-ACTION
 - b. Erosion and Sediment Control Inspection Reports pg.31-39
- 9. Staff Report pg. 40-42
- 10. 1W1P Updates
- 11. Other
- 12. Adjourn



Regular Meeting of the Middle St. Croix Watershed Management Organization Bayport Public Library Thursday, August 12th, 2021 6:00PM

Present: John Fellegy, Baytown Township; Mike Runk, Oak Park Heights; Tom McCarthy, Lake St. Croix Beach; Beth Olfelt-Nelson, St. Mary's Point; Susan St. Ores, Bayport; Annie Perkins, Afton; Administrator Matt Downing; Cameron Blake, WCD; Stu Grubb, EOR; Dawn Bulera, Lake St. Croix Beach alt.; Luke Anderson, public.

Call to Order

Manager McCarthy called the meeting to order at 6:05PM.

Approval of Agenda

Administrator Downing asked to add an additional item to the agenda: 7d) Lake St. Croix Direct Phase II – Encumbrance Request. Manager Fellegy motioned to approve the agenda with this addition and Manager Perkins seconded this. The motion passed on a roll call vote.

Approval of Minutes

Manager Runk motioned to approve the draft June 10th, 2021 board meeting minutes and Manager Fellegy seconded this motion. The motion passed on a roll call vote.

Treasurer's Report

The treasurer's report was presented by Administrator Downing. The remaining checking account balance on August 12th for the months of June/July 2021 was \$520,308.40. First State Bank CDs were valued at \$38,549.15. The ending balance in the RBC savings account for July 2021 was \$76,857.20.

Manager Fellegy asked why the ending balance is so high and Administrator Downing explained the MSCWMO has 4 state grants right now with grant funds coming in for the upcoming projects. This balance will be spent down as project expenditures come in. They will also be closing 2 grants after this meeting. The MSCWMO is also holding the cash-in-lieu funding from the county which is dedicated to the Stillwater Country Club maintenance for the next 20 years. Manager Perkins asked if the SCC maintenance funding should be kept separate. Administrator Downing explained there is about \$60-70,000 left of the initial \$119,000 for the SCC maintenance. Some was spent on construction and some for initial installation and maintenance activities. We track those funds separately. We track every expenditure on that. Administrator Downing advised against taking that money out of the checking account as that can hinder the flow of money that occurs with the procedure for state grants in which funding can be distributed after the spending, or reimbursed. This style is a burden on smaller organizations who have to carry the upfront cost and burden of the match funds until the grant money comes in. Manager Olfelt-Nelson asked if the board can receive more information and detail on current grant expenditures but explained she didn't want to make more work for him. Administrator Downing said he is already doing this tracking so he could summarized this for

the board. Manager Perkins said she feels better after hearing Administrator Downing talk about the process.

Manager Zeller motioned to approve the June 2021 Treasurer's Report and Manager Fellegy seconded the motion. The motion passed on a roll call vote. Manager Runk motioned to pay the June 10th bills and Manager McCarthy seconded this motion. The motion passed on a roll call vote.

Bills to be approved this month are: Emmons & Oliver (4): \$2,273.38 total; Peterson Company: \$3,000.00; Washington Conservation District (Administration-June/July): \$4,058.00; Washington Conservation District (Technical Services-June/July): \$11,000.00; Washington Conservation District (EMWREP): \$1,575, Washington Conservation District (Grant Hours): \$4,000.87, Washington Conservation District (Water Monitoring): \$4,767.48, Total: \$30,674.73. Manager Fellegy asked about the EOR invoices, and Administrator Downing explained that this was the MSCWMO's engineering firm they had selected at the start of the year who do technical services for the MSCWMO (2 year agreement). Manager Fellegy asked about the WCD invoices and what is involved in the administrative invoice. Administrator Downing explained that it covers his time and some other line items that he can provide if the board wishes (budgeting, meetings, grant tracking, accounting services, website maintenance and management). Manager St. Ores asked if the MSCWMO receives those invoices at every meeting. Administrator Downing explained that they were 53% spent through July on the budget.

Public Comment

Administrator Downing began the discussion by introducing the OPH/Baytown Township/Andersen property drainage question which the board has been discussing during meetings this year. Administrator Downing received direction from the board to do some initial investigation. He met with the landowner at his property and told him he could come address the board. Administrator Downing said he needs clarification on exactly what the request is as he feels he is receiving different answers form each community.

Manager Fellegy discussed the background of the issue and explained that Baytown Township is looking for more information on the drainage issue, historic requirements, any agreements that could have been in place, information on the stromwater treatment in the area and maintenance needs. They want to know if things were done to adequately address the flow of water from OPH.

Manager Perkins said in her experience this is not something the MSCWMO handles and asked if the board would like to address it. She asked to revisit the scope/mission of the WMO and cautioned about setting a precedent for similar issues that could arise in the future. She explained that she is not opposed but just wanted the board to make a clear decision.

Administrator Downing confirmed that part of legislature is that WMOs mediate disputes across political boundaries and asked what the board wanted to do. From his perspective they have met Baytown's original request for information. The MSCWMO did not exist when this issue occurred (1994) so we have no information on permit reviews or drainage easements. He has reached out to OPH 3 times for information since June 10th and not received a response. He explained OPH provided a model from their engineer (Santec) and he asked OPH about the assumptions made for the runoff coefficient. There was an assumption made for two distinct

subwatersheds that they had a similar runoff rate despite different amounts of impervious surface. It is a high level model so the assumptions made could make sense. He also requested the as-built information for the stormwater facility upstream to see if it is functioning as intended, if it requires maintenance, and if it has been being maintained.

The board recalls this issue being discussed at previous meetings, and acknowledged that some progress has been made. The answers to the questions Administrator Downing asked should inform the next steps. The board asked Manager Runk to check on if the city feels that they have answered the questions asked or if they are working on gathering more information.

The board discussed other drianage in the area and which direction if flowed (the Boutwell and Lowes parking lot drain to BCWD).

Manager Fellegy asked again about maintenance of stormwater features and Administrator Downing explained that it was more complicated than that. He asked if Baytown had their own records for when this property was platted and when roads and houses were constructed because he had not seen this from the property owner.

Manager Runk explained that all he knows is OPH made an offer to the property owner and he is abstaining form any votes on the topic.

Manager Perkins suggested the MSCWMO write a summary report of what the MSCWMO has done so far which should help the resident understand where the gaps are and where they may need to hire an expert to find the rest of the information they may need. Administrator Downing suggested the board hear from Luke Andersen who is attending as the public.

Luke Andersen explained the history of the property in his family. He explained that a drinaage pipe appeared on the property in 1994 without consent form the landowners at the time, his parents. When they tried addressing the situation then they were told it was an emergency drain pipe. There is no easement. After growing up on the property and taking ownership in 2010, he does not recall seeing water from that pipe until the last 2 or 3 years. They have done work on their property to try and address the issues from the drainage water. They have invested large amounts of money and are seeing erosion issues and even water inside his basement. He said he approached the city to ask for help and felt underwhelmed by the study the city conducted. He felt the city engineer was not helpful and the city offered \$5000 to accept an easement with information that was unclear to him. He informed the board he has hired a lawyer and sent an data information request to the city which has not received a response in 3-4 weeks. There is also a wetland being impacted by the sediment and a pond farther along the system is seeing impacts along neighboring properties. Manager Fellegy noted he is seeing sedimentation in this pond as well.

Manager Perkins asked if Baytown Township had been contacted and Manager Fellegy explained that the city can't stop the water coming onto the property. Mr. Anderson said he went to the township and they sent him to the MSCWMO. He said the solution has to come form where the water is coming from and that the sediment is a big issue.

Manager Perkins clarified that the action Baytown Township has taken is to request information from the MSCWMO. Manager Perkins asked what legal powers the MSCWMO has. Manager Runk said the MSCWMO does not have legal power, that they are an advisory committee under a Joint Powers Agreement with all the participating communities.

Manager Perkins suggested again to write a summary of what we have done and what is missing. Administrator Downing explained that the MSCWMO does have legislative authority it has chosen not to apply and probably wouldn't apply to this situation as it would be retroactive. He said if he were to make a recommendation it would be for the MSCWMO to continue with assist in gathering information and could also offer technical design assistance. The MSCWMO could do things in the upstream property if the owners would be willing to install stormwater projects that could help with the issue. He reiterated that the MSCWMO does not have any additional information as the MSCWMO did not exist at the time this development was occurring. Hopefully someone has a record of this but he doesn't know if it exists form this time. His hope out of this discussion is to provide assistance if the board wants this.

Manager Olfelt-Nelson moved that the MSCWMO compile a summary of action and an offer for technical guidance moving forward. Manager Perkins seconded this motion. The motion passed with manager Runk abstaining from the vote.

Stu Grubb said another thing the MSCWMO could do is serve as a grantee for state/county funds if any program is found that could address this problem, but that this would need to be in their plan and they would need to find places that could fund this. Manager St. Ores asked for the summary of action to include a record that include the timeline of when communications occurred and the status of each step. There should be date stamps on each of these actions. Administrator Downing said the original email request he made to OPH for information was May 24th and a response was received on June 8th. There was an additional response a few days later and no response since then.

Old Business

There was no old business.

3M PFAS Reimbursement Request

Administrator Downing explained he invited Stu Grubb to attend the meeting tonight because he has been receiving questions about PFAS from board managers. Some of the questions form board managers included what are we doing with the MSCWMO portion of the 3M settlement, what should we be doing, and should we give it to another party who could better spend it. Mr. Grubb had been attending meetings on behalf of the MSCWMO which is summarized in the board packet. Mr. Grubb explained his background as a groundwater hydrologist and has been modeling groundwater in Washington County for 20 years.

Mr. Grubb explained where the process was at. At this point the co-trustees of the settlement money would be making a recommendation soon for what should be done to address the water issues in each community; in the MSCWMO this is primarily West Lakeland Township. The debate in West Lakeland Township is whether to use these funds for the initial cost of a municipal water supply. The community is torn on this topic with debates about whether the private well water can still be used for irrigation and others not wanting to drink municipal water. At the moment, affected homes in West Lakeland have point of entry systems of granulated carbon filters. This treatment could continue for 100 years under the 3M settlement. At this point West Lakeland is waiting for the decision form the co-trustees.

Administrator Downing asked Mr. Grubb if there was anything else the MSCWMO should do in and he explained that a WMO's role is to protect water resources; surface water but also groundwater to the extent that we can control. He explained that potential threats are the high capacity well installations which have the potential to take water away from/redirect groundwater flow from one area to another. The board discussed some of the options being discussed for Woodbury.

Manager St. Ores asked about the potential for seepage of the PFAS contamination to other communities. There is an 800 million settlement form 3M which is not the limit of the funds available from 3M but is the number they are working with right now. Manager St. Ores asked Administrator Downing to send an email connecting her, Matt Kline, and Stu Grubb. Manager Fellegy asked about access of water on the south side of Baytown Township and Mr. Grubb confirmed that the water should be available to the general area. The board asked another question about the point of treatment filters on wells and whether community wells have been addressed yet.

Administrator Downing explained that he thinks the MSCWMO is spending their allotment of the money well by having Mr. Grubb attend these meetings on their behalf. The board agreed that he should continue to attend these meetings and representing the MSCWMO. He will also be available for questions from the board managers and Mr. Grubb stated his cell phone number. The board agreed that time he spends answering questions from the managers can be billed back to this funding.

Mr. Grubb explained that the meetings lately have been focused on specific communities and strategies for them. The co-trustee's report should be coming in the next couple weeks and they will have recommendations. This report will also be public information. Manager Olfelt-Nelson explained it has been hard for smaller cities to figure out where to get relevant information (or what meetings to join) for them, She said they don't have a great understanding of what to do if/when the seepage causes a ripple effect and feels this is an important thing to show up for and understand what to do if the seepage reaches them and there's no money left. Community water systems are expensive and would use up the funding quickly. The MSCWMO Board thanked Mr. Grubb for the information.

Manager Perkins motioned to approve submittal of 3M PFAS reimbursement request totaling \$608.25 and Manager Fellegy seconded the motion. The motion passed.

2022-2024 EMWREP Agreement

Administrator Downing explained that this agenda item is a renewal of MSCWMO's participation in the EMWREP program for next 2 years. This program is a way for the MSCWMO to meet requirements as well being a great value for the MSCWMO. Manager St. Ores motioned to approve the 2022-2024 EMWREP agreement and Manager Olfelt-Nelson seconded the motion. The motion passed.

2022 Final Budget

Administrator Downing received no edits and the proposed budget is unchanged from the last board meeting. There was no additional discussion. Manager Runk motioned to approve the 2022 MSCWMO budget and Manager Fellegy seconded the motion. The motion passed.

Lily Lake Basin/Lily Lake Terrace Agreement

After project scoping they found out they needed a partnership with the apartment complex. The apartment management agreed to work with the MSCWMO and will pay for the drainage improvements on their property. They agreed to maintain the practices on their property. Manager Olfelt-Nelson asked if this was a legal agreement that would be recorded with the property in the case that it changes hands and Administrator Downing confirmed this. Manager Fellegy motioned to approve the agreement and Manager Runk seconded the motion. The motion passed.

2021 Second Half Contribution Requests

Administrator Downing received board direction to send out the 2nd half contribution requests. A number of communities have still not sent their 1st half community contribution (Afton, Lakeland, and Lakeland Shores) so Administrator Downing will ask for 1st and 2nd payment s form them. The board agreed.

Collier Native Habitat Planting Pay Request

In June 2021, the MSCWMO board encumbered \$250.00 for a Landscaping for Habitat Grant in BMP cost share funds for installing a 1,600 sq. ft. native planting on their property. The project was completed in July, and the homeowner is now requesting reimbursement. WCD Staff approved the installation.

Motion by Manager Runk, seconded by Manager St. Ores, to approve final payment of \$250.00 for the installation of the Collier native planting.

Lake St. Croix Beach Pay Request

The main grant is closed out and the project is now complete. The city paid the final payment and is asking MSCWMO for the Watershed Based Funds that were allocated to this project. Manager Perkins motioned to approve the final payment of \$65,800.35 for the Lake St. Croix Beach Bluff Stabilization Project and Manager McCarthy seconded the motion. The motion passed.

WCD Perro Creek Grant Application

This is an informative agenda item. Administrator Downing explained that the WCD is working on a grant application for retrofits in the Perro Creek Subwatershed. Possible projects included underground facilities such as sediment chambers. This area struggles with flooding and sediment issues with not a lot of room available for surficial infiltration practices. Administrator Downing asked if the MSCWMO would be willing to provide assistance in the form us existing TA funds in the area being used as match for the grant. This would fit in the existing budget. Administrator Downing noted that Bayport and the MSCWMO are good partners and this could help the city offset costs. The board sounded supportive. Manager St. Ores and Administrator Downing discussed potential locations and maintenance that would be added. The city already pays for a vac service and so it's not very expensive to add additional locations to that service.

Lake St. Croix Direct Phase II – Encumbrance Request

In February 2021, the Board of Managers approved acceptance of the Clean Water Fund Grant award (C21-1745). The grant is for implementation of best management practices throughout the Lower Middle St Croix SWA boundary (Bayport to St Mary's Point). The total grant is for \$158,000.00, of which \$125,000.00 is for implementation.

In the process of scoping for projects this week in Lake St Croix Beach, a homeowner living at a previously unidentified site approached WCD staff requesting a raingarden (@ 16822 Upper 17th, Lake St Croix Beach). This site happens to be in an area where road reconstruction is occurring in the coming weeks (using FEMA funds). This site is an ideal location for a curb-cut raingarden and pollutant load reduction would rival or exceed some of the other practices proposed in the SWA (making it a great candidate). WCD staff have already met with the homeowner to cover design and maintenance requirements and they are excited to work with us. Being that road reconstruction is happening in the coming weeks (before the next board meeting), and raingarden installation could occur simultaneously to achieve some cost savings, staff would like to pre-emptively encumber funds to proceed with the project, even though there is no quote yet. Once the maintenance and cost share contracts for the landowner and city are signed, staff will create construction drawings to be added to the existing road reconstruction drawings. A quote will be developed by the contractor based mostly on the approved contract unit-pricing for the road project. The city engineer and WCD staff will review the quote for fair pricing for outlier items. WCD staff anticipate the install being somewhere near \$12,000, but current pricing trends may force the cost higher. Staff is requesting encumbrance of up to \$20,000.00 to cover cost of installation of this raingarden, knowing that the cost should be substantially lower in the final quote. Administrator Downing explained some additional circumstances such as the difficulty in trying to build projects on land that MNDOT has planned for future use within Bayport. The total goal of phosphorus reduction with this grant was 7 pounds/annually and this project is expected to meet a pound of this so it ranks well.

Manager Fellegy moved to approve encumbrance of up to \$20,000 from Clean Water Fund grant C21-1745 to install a raingarden at 16822 Upper 17th St S. Manager McCarthy seconded this and the motion carried.

Lookout Trail

Submittal items were received on April 22nd for the proposed reconstruction of Lookout Trail in Oak Park Heights with additional requested materials received May 10th. The project has proposed to utilize offsite MnDOT stormwater basins to provide the volume control required to meet MSCWMO standards. MSCWMO staff recommend approval with two conditions at the June board meeting. The two conditions of approval were satisfied with submittal items received June 8th.

TH36 Frontage

Submittal items for the TH36 Frontage/Osgood Avenue project were received on June 17th with revised materials received June 28th. The project removes 20,320 square feet of impervious

surface with the removal of 60th Street between Oren Avenue and Osgood Avenue. This area is converted to pervious surface which was used to satisfy the volume control requirement based on volume credit for impervious to pervious surface conversion as described in the Minnesota Stormwater Manual. MSCWMO staff recommends approval

Manager McCarthy motioned to approve the project and Manager Perkins seconded this. The motion passed.

LSCB Streets

Submittal items were received on June 23rd for the LSCB 2021 Street Improvement Project. Additional materials to complete the review were requested on June 24th and were received on July 9th. MSCWMO staff recommend approval.

Manager Perkins motioned to approve the project and Manager McCarthy seconded this. The motion passed.

343 Lake

Submittal items were received on June 29th for the proposed grading that will occur at 343 Lake Street in Bayport in conjunction with the reconfiguration of site plans for the proposed home reconstruction at 333 Lake Street. The required volume control for the originally project at 333 Lake Street is maintained and erosion and sediment control standards are satisfied. MSCWMO staff recommends approval. Manager Perkins motioned to approve the project and Manager Fellegy seconded this. The motion passed.

Manager St. Ores asks if project will begin after approval or if its possible the work has already started, Administrator Downing explained that if the project is simple enough and meets the rules the board decided on retroactive board approval (after administrative approval) so as to not slow down the process. So it is possible the work has already begun in this instance.

Toland

Submittal items were received on July 9th for a proposed home addition at 801 Quentin Ave S in Lakeland with additional requested materials received July 13th. The project has proposed to utilize replacement of existing impervious with pervious pavers and regrading away from the bluff to provide the volume control required to meet MSCWMO standards. MSCWMO staff recommend approval.

Manager Perkins motioned to approve the project and Manager McCarthy seconded this. The motion passed with all in favor.

200 Chestnut

The MSCWMO originally recommended approval of the project in December 2020 which utilized a green roof to meet volume control standards. The developers have since requested the engineer redesign the project exploring other stormwater management alternatives and a resubmittal was received on July 22nd. The project proposed to utilize a proprietary modular wetland system which will provide treatment through filtration but does not provide volume control. The applicant has been asked by MSCWMO staff to resubmit the project following the

MIDS alternative compliance sequencing and demonstrate volume control is infeasible onsite before pursuing alternative stormwater flexible treatment options.

The board discussed this project, recalling that they were excited about the original design. Administrator Downing explained that the applicant also asked about cash-in-lieu of treatment but that this would not be applicable for them as economic conditions alone are not enough of a reason to use this, and they have already demonstrated that they can meet the rules with the original design. He believes the city is also looking for them to meet the volume requirement as the downtown area already had flooding concerns and the buildings downtown are not designed to accommodate additional volume. Manager Runk said they were supposed to have a report from the applicant but they have not seen it yet. The group agreed that they hope the developer goes back to the original green roof design which meets the rules.

Erosion and Sediment Control Inspection Reports

Administrator Downing explained the ESC inspections are another thing the MSCWMO is doing for cities without staff capacity and have expressed interest. Administrator Downing went through the erosion and sediment control inspection forms in the board packet, noting that most of them looked great or were fixed up quickly after being notified of issues. Aaron DuRusha, the inspector, spoke with the Fox hillside landowner who raised concerns and asked if the MSCWMO could educate his neighbors on information regarding bluffs. Manager Olfelt-Nelson agreed thinks it would be a good idea as she noticed that many people seem to have forgotten the role they play as stewards of the riverway. Administrator Downing suggested a direct mailing with some educational information. Manager Olfelt-Nelson asked to make it clear that landowners should not be doing activities that change the buff without calling and getting approval.

Manager St. Ores asks if the MSCWMO does ESC inspections for everyone and Administrator Downing reiterated that it was just for small communities with limited staff capacity who have indicated their interest.

Staff Report

Administrator Downing went through the staff report in the board packet. He explained that he is beginning to do some of the project review to be better informed. He updated the board on the Perro Creek water analysis which has been unpredictable this field season. He reminded the board about the shift to a new software system to improve the reporting system with the end goal being more efficient and cost effective. He has attended a number of meetings as well.

1W1P Updates

Manager Fellegy missed last month's meeting which was in person. Administrator Downing explained that th partnership is moving forward and implementation funding is coming out for time sentitive projects that have been identified. There are a number of subcommittees formed by staff which will implement the policies and procedures used to implement funding going forward.

Other

The board discussed the future format of board meetings. Adminstrator Downign explained he has heard conflicting information from attorneys on remote vs. hybrid vs. in-person meetings and how open meeting laws apply. Manager Perkins recalled a webinar from the Afton attorney and can ask for that information. Manager Runk explained the type of technology another group he is in is using to have everyone on camera in order to meet open meeting laws while being able to have some participants remotely attending.

The board discussed what they wanted to do for the next meeting and the pros and cons of in person vs remote. Administrator Downing noted that it can be more difficult to do remote meetings when the number of attendees is higher. He will compile info and options to discuss.

Adjourn

Manager Fellegy motioned to adjourn the meeting and Manager Perkins seconded this. The meeting was adjourned at 7:44pm.

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MEMORANDUM

TO: Middle St. Croix WMO Board of Managers

FROM: Matt Downing, Administrator

DATE: August 27th, 2021

RE: 6a.) Baytown -Oak Park Heights Drainage Dispute Review Summary

At the August 12th regular meeting of the MSCWMO, the Board of Managers directed staff to summarize the process revolving around a drainage dispute located at 5440 Oakgreen Ave N, Baytown Township and offer recommendations for further action. A summary of events is as follows:

- The board was made aware of the issue at the February 11th meeting. There was some discussion on the topic and an acknowledgment that the managers from the two communities had dialogue on the subject. The board took no action and decided to remain neutral unless there was a formal request to become involved from one of the affected parties.
- On February 18th MSCWMO staff was made aware of a letter sent to the property owner from OPH summarizing their investigation of the issue to date.
- At the March 11th MSCWMO Board meeting, a similar discussion to the previous meeting occurred. It was reiterated that MSCWMO will take no action until a formal request to do so was made.
- On March 23rd MSCWMO staff was made aware of a February 23rd memo to Baytown Township Supervisor Fellegy from the Baytown Township engineer. The memo stated that TKDA would perform investigation on the issue. MSCWMO staff advised the Town Chair for Baytown that this could be brought to the MSCWMO Managers but no request was being made. Baytown opted to wait and prepare a formal request.
- A formal request from Baytown was received on May 12th. The request was for all information related to MSCWMO permits issued/reviews conducted, and any drainage easements. An assertion was made that it is MSCWMO's responsibility to review and permit any changes to drainage.
- At the May 13th meeting the request was presented and discussed. It was clarified by staff that MSCWMO has no permitting authority, and did not conduct a review on any of the properties in dispute, as all of the work was performed prior to 2015 when the WMO assumed project review responsibilities and updated rules to be enforced by the member communities. The board directed staff to spend some time reviewing information but would prefer to identify solutions. There was also a request to tour the area with representation from all three entities.
- On May 24th OPH staff asked their city engineer, Stantec, to provide the WMO with the modeling that was conducted by OPH on the drainage.
- On June 8th MSCWMO staff requested an update from Stantec on the data request. Hydrologic and hydraulic analysis files were received later that day. Issues related to being able to open and review the files were resolved on June 10th.
- MSCWMO completed a review of the analysis and asked some clarification questions regarding the input parameters on June 30th.
- On August 6th MSCWMO staff met with the property owner and toured the site. The stormwater basin in OPH was verified to be present via LIDAR and a visual confirmation. Storage values were not calculated at that time. The property owner was asked for grading plans and building permits but

- was unable to supply them. Other materials related to OPH work orders were received from the property owner.
- MSCWMO staff requested follow up from the June 30th inquiry regarding the analysis on August 6th.
- At the August 12th meeting, the property owner and Manager Fellegy restated the request for action from the MSCWMO. The board directed staff to summarize the work done, request follow up on outstanding items and prepare recommendations for further action.
- On August 13th, OPH staff directed Stantec to respond to the June 30th inquiry from MSCWMO. A response was received later that day. MSCWMO staff were satisfied with some of the responses and analysis corrections, but still have concern on the validity of the assumed parameters that correlate to runoff volumes. There was also no progress on securing an as-built of the stormwater basin in OPH for comparison to current conditions.
- On August 13th, MSCWMO staff requested the building and grading permits that were issued by Baytown for the construction of the home at the property, as well as any supporting materials provided in the permit application.

Upon review of all of the information provided through this process. MSCWMO staff have noted the following concerns:

- MSCWMO review of the models prepared by Stantec resulted in 4 areas of concern:
 - o Culvert entrance and loss coefficients were initially missing. Stantec noted this comment and re-ran the model after correcting this.
 - Modeling utilized trapezoidal channels as opposed to a broad crest weir to represent overtopping at culverts. Both methods are technically acceptable and would likely only result in minor differences in discharge rates.
 - o A request was made for an as-built of the stormwater basin in OPH for comparison to current conditions, at this time one has not been located.
 - The runoff input parameter for each drainage area (known as the Curve Number) was developed from NRCS GIS Engineering tools. This methodology resulted in the highly impervious housing development having a similar CN value as the fallow field located on the subject property. MSCWMO staff disagrees with this and does not concur that the runoff volumes are comparable between the two areas. We have suggested that a different methodology be used to more accurately identify the CN values. No response has been received.
- A site visit by MSCWMO staff noted the following issues on the subject property:
 - Significant increases of impervious surface and grading have occurred on the subject property. There were no stormwater management facilities noted to mitigate the impacts of this increase. Had the project been completed in compliance with the performance standards of the 2015 Watershed Management Plan rate and volume control standards would have necessitated stormwater management facilities.
 - There have been changes made to the drainage system that likely resulted in increased velocity, potentially adding to the erosion issues noted.

Staff have prepared the following recommendations for Board consideration:

- Managers from the affected communities should abstain from discussion or action items related to this subject. There are potential conflict of interest concerns and looming legal action between the affected parties.
- MSCWMO could provide technical assistance to the subject property for improvements to the drainage system and on-site stormwater management.

• MSCWMO could conduct outreach and subsequent implementation of stormwater retrofits in the neighborhood north of the property. Curb-cut raingardens would be feasible in many locations in the catchment, installation of these would reduce the load placed on the stormwater system owned by OPH and reduce the volume of water entering the subject property. Likely partners on this effort would be the City of OPH, the Washington Conservation District and the individual homeowners.



City of Oak Park Heights

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2/17/21

TO: Mr. Lucas Anderson

***VIA EMAIL ONLY: ande2920@umn.edu ***

RE: Stormwater Flow - South of 55th Street

Dear Mr. Anderson:

This letter serves as a follow-up to our conversation last week, and in follow up to the City Council meeting discussion of your property on February 9th, 2021. Generally, the City understands the following as it relates to water drainage onto your property and the associated impacts it has:

- 1. Water does drain from an area of the City through an underground pipe / culvert and does drain onto your property. This, based on historical aerial photography and the build-out of the adjacent neighborhood has been occurring in its current format since 1992 +/ with the development of the River Hills Subdivision. As this land sits generally at a higher elevation, water also likely drained in this southwardly direction before this timeframe, but it certainly was "channelized" in this 1992-era.
- 2. We are unsure what the agreement may have been with the property owners and developer at that time circa 1992, but it is open, obvious and well established that since such time this flow of stormwater was and is well-known, evident, ongoing and managed. We are unaware of any legal action or notices from the 1992 era in which there was an objection or dispute between the then property owner and the developer. Perhaps your files have such documentation that you could share?
- 3. Since 1992, the land upon which this water flows has been altered several times by presumably the property owner with grade changes, installation of roads, culverts and finally the construction of a home in 2011-2012. These alterations also revised how this stormwater moves across this property, and were outside of the City's control or purview. We are unsure if any such alterations were permitted by the Town or watershed or any other party or if it was required in those timelines. To the best of my knowledge, the City was NOT part of any of those land alteration discussions.

At this time, the City must assume that such stormwater flows may lawfully continue as constructed in 1992 and occurring for now nearly 30 years, and that the repeated land alterations by the property owners(s) after 1992 have contributed substantially to the issues you are now experiencing – such as scouring, flooding, land -saturation, etc. Moreover, by our engineer's calculations and estimates, there is also significant stormwater flow derived from your property itself – beyond any flow-contributions from the City's pipe. If there is different data that you can produce that documents an alternative position, I would believe the City would gladly consider reviewing it.

With this historical perspective and context, the City is willing to consider a minor contribution to some solutions you may further propose however the City cannot assume a role as a designing agent for this matter nor can the City's contribution towards costs exceed 20% of the total "out-of-pocket" project costs (subject to Council approval) for any remediation — up to a maximum of \$5,000. The City will however require an express drainage easement agreement to more clearly affirm that the City's storm sewer pipe and flows to avoid any potential future issues of a similar nature.

These City contributions noted above will be considered after a plan is developed by you, with at least two valid contractor bids for the work and/or materials is obtained and a permanent easement arrangement between you and the City is made so that future issues do not arise — if you or some other future owner further alters the land again without City review. As noted, the City will need to have a formal, recorded drainage easement agreements that will encumber this land in perpetuity.

We will gladly share the data we have secured to date and perhaps the MSCWMO may have some further design and/or construction assistance available. After you have had some time to consider this material, please give me a call if you have any questions.

Sincerely,

Eric Johnson

City Administrator

Cc: Matt Downing, MSCWMO



Memorandum

To: Copies To:	John Fellegy	Project Reference:	Oak Park Heights Drainage Issue			
copies 10:			Baytown Township, Minnesota			
From:	Jim Studenski, Town Engineer	TKDA Project No.: _ Client No.: _				
	February 23, 2021					

A concern about drainage coming from Oak Park Heights 55th Street south into Baytown Township resident's Bill Keefer and Luke Anderson properties was initiated in late 2020.

Oak Park Heights authorized an engineering review of the drainage concern at their October 27, 2020 City Council meeting. Memorandum is attached.

Oak Park Heights received the drainage review at their February 9, 2021 City Council meeting. Memorandum is attached.

The report's conclusion is they have a small storm contribution to the drainage area and therefore minimal to no responsibility for the drainage concern.

Our review of the drainage documents presented to the Oak Park Heights City Council leaves us with the request to further obtain more drainage analysis and better understand the concerns of the Baytown residents.

The analysis states the drainage was altered through the building of the house. It only states the drainage areas and the 2-year, 10-year and 100-year flows.

The October proposal states a topographic survey would be performed and we request that documentation.

We also request the original storm design and the analysis of the storm system that was performed to determine it is currently functioning properly.

We need to further evaluate the flow volumes to understand the current impacts.

We will work with the residents, Oak Park Heights and MN Washington Conservation District to better understand the drainage system as it was designed and how it functions today.



Baylown Township

4020 McDonald Drive North, Stillwater, MN 55082 Website: baytownmn.org Township Clerk: 651-430-4992 or clerk@baytownmn.org

May 5, 2021

MAY 12 2021
WASHINGTON SWCD

Middle St. Croix Watershed Management Organization 455 Hayward Ave.
Oakdale, MN 55128

Subject:

Drainage onto property of Lucas and Nisha Anderson at

5440 Oakgreen Ave N, Baytown Township (subject's property)

Baytown Township is investigating the history of all actions taken over approximately the last forty (40) years that would have impacted the flow of water from the City of Oak Park Heights into Baytown Township for the drainage that runs into the subject property. This letter serves as a formal request for all MSCWMO permits issued and/or applications requested by either the City of Oak Park Heights or any developer/development located in the city-limits of Oak Park Heights that could have possible altered or affected the drainage onto the subject property. We also request details of any existing Drainage Easements and Drainage Easement changes over the same timeframe.

It is our contention that the drainage from the City of Oak Park Heights into Baytown Township at the subject property has experienced a significant change over the recent past. It would have been the MSCWMO's responsibility to review and permit all changes to the water flow inside the localized watershed the subject property lies in, and so we expect that the analysis of this requested data will help us all understand what change (if any) explains the conditions we see today (which are atypical of our historical observations).

We are happy to accept your findings in electronic form, or to arrange a time to review the materials at your offices. We can make explicit arrangements once you have acquired the related artifacts.

I appreciate your assistance in this matter,

Rick Weyrauch

Baytown Township, Chair

CC:

John Fellegy, Baytown Supervisor Jim Studenski, Baytown Engineer October 23, 2020 File: 193885119

Attention: Mr. Eric Johnson City of Oak Park Heights 14168 Oak Park Boulevard Oak Park Heights MN 55082

Reference: Proposal for Engineering Services – Anderson Property Drainage Improvements

Dear Eric:

This letter outlines the Scope of Services and estimated costs for providing a topographic survey, existing and alternative analysis, and concept/preliminary layout and cost estimate for the drainage improvements along the Anderson property south of 55th Street in Baytown Township. The improvements will generally include an analysis to protect the property from future erosion and scour that is currently occurring due to the City's runoff from ~20 acres north of the property.

The total estimated hourly not-to-exceed (without prior authorization) fee for the work is \$11,700, including expenses. A proposal for design and construction services will be forwarded for the City's review at the end of this preliminary analysis when a solution is agreed upon by the City.

The work would consist of the following tasks:

Task 1 – Topographic Survey

Topographic Survey – Collect existing topographic information needed for the concept and final design.
 Coordinate Gopher State One Call process. Includes initial survey (1-day) and one follow up visit if needed.

Task 2 – Existing and Alternative Site Analysis

- Stantec will use the City's local surface water management plan (LSWMP) HydroCAD model as the
 basis for the existing conditions site analysis. The Anderson property currently receives ~20 acres of
 runoff from drainage area BT-3 according to the LSWMP. The model will be broken out to determine
 the conveyance capacity, as well as the flows and velocities crossing the Anderson property for the
 2, 10, 25, 50, and 100-year, 24-hour storm events. All modeling will use NOAA Atlas 14 rainfall data
 and MSE Type III rainfall distribution curves.
- Two alternative analysis will be performed for the Anderson property after the existing conditions model has been completed.
 - Alternative one will consist of making alterations to drainage path along the Anderson. As
 part of this analysis, we will evaluate the culvert crossings within the property and making
 necessary grade changes to provide a drainage path that will reduce the velocities and
 potential erosion that is currently happening within the Anderson property.

- Alternative two will consist of creating a stormwater detention feature at the outlet of the City pipe and modifications to the drainage path along the Anderson property. A stormwater detention basin will be designed to retain water and slowly release it downstream, along the Anderson property. The goal of this analysis will be to determine the sizing of the detention basin needed to release the stormwater to a velocity that will reduce the risk of further erosion along the drainage path. In this alternative, drainage path modifications will ideally on be made where erosion has occurred to reestablish the pathway.
- A technical memorandum summarizing the existing conditions and two alternative analysis will be completed as part of this Task 2. It will include the necessary information to help advise the City to a recommended solution. One virtual meeting will be included for this drainage analysis to review the results with the City prior to finalizing the memo.
- Geotechnical exploration is not a part of this contract. Soil borings should be considered prior to final design to determine soil characteristics. This will allow for a better understanding of infiltration capacities and allow designs to help prevent potential erosion and scour from occurring.

Task 3 - Conceptual Design Layout and Cost Estimates

- Stantec will complete a conceptual layout for the two alternative layouts described in Task 2. This will include showing the preliminary drainage alignment and footprint, culvert recommendations, project limits, and other information that will help allow the City to understand the proposed project. For the second alternative, the approximate footprint and storage volume of the detention basin will be shown. Under this scenario, Stantec will also identify the locations of where the drainage path will be repaired to fix current erosion and scouring locations.
- Preliminary opinion of probably costs associated for each alternative will be provided as part of this Task.

The fees for the tasks outlined above are as follows:

Total E	Stimated Fee	\$11 700
	Expenses	\$200
	Task 3 – Concept/Preliminary Layout and Cost Estimate	\$3,600
	Task 2 – Existing and Alternative Site Analysis	\$5,350
	Task 1 – Topographic Survey	\$2,550

October 23, 2020 Mr. Eric Johnson Page 3 of 4

Reference:

Proposal for Engineering Services – Anderson Property Drainage Improvements

Proposed Schedule

A possible schedule for the project is as follows:

October 13, 2020 Authorize the work December 4, 2020 Final Concept and Cost Estimate Complete December 8, 2020 Authorize Plans and Specifications January 12, 2021 Authorize bids February 3, 2021 Receive Bids **Award Project** February 9, 2021 June 2021 **Begin Construction** July/September 2021 Substantial/Final Completion

This letter and scope of services represent the understanding between the City and Stantec in respect to the Project and may only be modified in writing signed by both of us and is subject to the current Master Services Agreement between the City and Stantec.

If this letter satisf a forth conditions of our Agreement, please sign in the space below and return one copy to our office. Thank you for the opportunity to provide these services.

CITY OF OAK PARK HEIGHTS

ERK

Print Name and Title

Date

If you have any questions, need additional information, or wish to discuss this matter in greater detail, please contact me.

Regards,

Stantec Consulting Services Inc.

Lum Mann

Lee M. Mann, PE MN, WI, CA

Principal

Phone: 612-712-2085 Lee.Mann@stantec.com

Attachment: Attachment

c. file

CROIX WATERSHED MANAGEMENT ORGANIZATION

455 Hayward Avenue N. Oakdale, Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

MEMORANDUM

TO: Middle St. Croix WMO Board of Managers

FROM: Matt Downing, Administrator

August 26th, 2021 DATE:

RE: 6a.) Permit Review Compliance

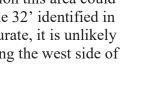
Since 2015 the MSCWMO has conducted review and recommendation of building permits issued by the member communities to ensure compliance of our shared performance standards. As part of this cooperative effort, a number of the smaller communities have also requested that the WMO conduct inspections of active projects and provide guidance. Typically, this process has resulted in action being taken to remedy issues related to erosion and sediment control practices in place during active construction. The latest round has resulted in two projects being identified where substantial changes to the project have occurred compared to the approved plan set. A summary of findings is as follows:

1635 Rivercrest-Stordahl (Lakeland)

Additional impervious over what was submitted on the plans was observed. A concrete pad, patio and walkway were constructed on the back side of the house that added approximately 860 square feet of additional impervious from the submitted plans that were reviewed. The additional volume control requirement for this would be 78 cubic feet. The original plan required 1,080 cubic feet of volume control, the approved plans demonstrated 1,274 cubic feet. This is greater than the new required volume, however the additional work is located in close proximity to the bluff and cannot direct runoff to the facilities. The final area of concern is that the original plans called for a rain garden to the south west of the home. This has been replaced by an underground infiltration chamber, the size and function are unknown since it was not included on the plans for review.

MN Party Bus Company-2nd Street Commercial (Lakeland Shores)

- During the most recent erosion and sediment control inspection it was noted that the project was complete minus the construction of the proposed infiltration basins. However, the project was not constructed as shown on the submitted plans and was modified without notifying the City or WMO. The owner claimed that there is less impervious present on the east side of the structure than planned, which is why more was done on the west. The boulder retaining wall was built directly on the property line, the plans showed it meeting setback requirements. The inspector offered the following site comments:
 - Measuring from the top of the west boulder wall to the edge of the parking area is 22.5, and from the north boulder wall to the fence/north edge of the building is 58'. See attached diagram. With a 10' setback inward from the property line/boulder walls, and assuming a 1.5' maximum depth and ignoring a 3:1 side slope, the maximum retention this area could provide is 900 cf, 625 cf short of the 1,525 cf described in the plan. If the 32' identified in the plan from the building to the property line and septic location is accurate, it is unlikely the retention requirement could be met by extending the basin south along the west side of



- the building given setbacks from the building, property line, and septic tanks, and the required 3:1 side slopes.
- O The owner expressed willingness to work with the WMO/city to meet the requirements, i.e. resubmittal/redesign, getting a current as-built, etc. although it does not appear possible without removing a part of the parking area or using some sort of underground treatment, which may also be hindered by the presence of underground gas lines.

Recommended Board Action- Direct the affected communities to follow up with these issues and take action to remedy and bring projects into compliance with their shared stormwater performance standards. Authorize staff to provide technical assistance and guidance in this effort.

2022 MSCWMO Water Monitoring Estimate

Lake WQ Monitoring	Type	Labor	Time/Mileage	Lab	Total	Notes			
Lily Lake	LWQE1	\$1,827	\$0	\$550	\$2,377	14x/year with WQ sampling + deep lake for DO			
McKusick Lake	LWQD1	\$914	\$0	\$550	\$1,464	14x/year with WQ sampling			
						14x Hypolimnetic sampling + pretreatment alkinity sampling and pH profiles + Bi weekly			
Lily Lake Alum Treatment Sampling	NA	\$1,008	\$0	\$394	\$1,402	near shore pH readings			
Total Lake WQ Monitoring	N/A	\$3,749	\$0	\$1,494	\$5,243				
Total Earle WQ Monitoring	1071	ψ3,717	40	Ψ1,171	Ψ3,2 13				
Lake Gage Monitoring	Туре	Labor	Time/Mileage	Lab	Total	Notes			
Lily Lake	LEA1	\$161	\$0	\$0	\$161	Install and/or Survey and/or Remove. Read during WQ sampling by WCD			
McKusick Lake	LEA1	\$161	\$0	\$0	\$161	Install and/or Survey and/or Remove. Read during WQ sampling by WCD			
Total Lake Gage Monitoring		\$322	\$0	\$0	\$322				
Lily Lake and Perro Pond Targeted WQ Monitoring	Type	Labor	Time/Mileage	Lab	Total	Notes			
Greely Street Inlet to Lily Lake	V	\$5,070	\$651	\$200	\$5,921	Grab samples			
Perro Diversion Structure & Overflow	III	\$6,305	\$1,170	\$714	\$8,189	Fully automated station			
TOTAL	N/A	\$11,375	\$1,821	\$914	\$14,110				
Report	Type	Labor	Time/Mileage	Lab	Total	Notes			
Water Monitoring Report	NA	\$2,400	\$0	\$0	\$2,400				
2022 Total Monitoring Costs		\$17,846	\$1,821	\$2,408	\$22,075				

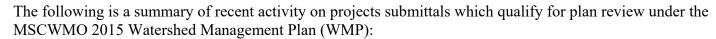
455 Hayward Avenue N. Oakdale, MN 55128
Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

MEMORANDUM

TO: Matt Downing, Administrator

FROM: Rebecca Nestingen, PE **DATE:** September 2, 2021

RE: 8a) Plan Reviews/Submittals



- **200** Chestnut. The MSCWMO originally recommended approval of the project in December 2020 which utilized a green roof to meet volume control standards. The developers have since requested the engineer redesign the project exploring other stormwater management alternatives and a resubmittal was received on July 22nd. MSCWMO staff advised resubmittal following the MIDS alternative compliance sequencing and demonstrate volume control is infeasible onsite to pursue alternative stormwater options. The developer and applicant has since decided to revert the back to the original green roof design approved in 2020.
- Ruprecht Retaining Wall. The MSCWMO received project review submittal materials on August 10th, 2021 for the repair and replacement of retaining walls on the bluff at 737 Quentin Ave S in Lakeland. MSCWMO staff requested additional review materials and received revised materials from the applicant on September 1st. MSCWMO staff recommend approval with two condition.
- **Burton Retaining Wall and Patio.** The MSCWMO received project review submittal materials on August 27th, 2021 for the repair and replacement of failing retaining walls and the construction of a new patio at 313 Quixote Ave N in Lakeland Shores. The MSCWMO staff meet with the project applicant on August 31st and advised the applicant the MSCWMO prohibits construction within 40 feet of the top of blufflines and requires BMPs to achieve volume control when 500 square feet or more of impervious surface is added. The applicant is attempting to revise the project scope so that less than 500 square feet of impervious surface is added and construction within the 40 foot bluffline setback is limited to repair/replacement of existing retaining walls and minimal soil disturbance/grading.



455 HAYWARD AVENUE, OAKDALE, MINNESTOA 55128

Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

September 2nd, 2021

Kate Piscitello 690 Quinnell Ave. N Lakeland, MN 55043-0643

RE: Ruprecht Retaining Wall MSCWMO Project Review

Dear Ms. Piscitello:

The Middle St. Croix Watershed Management Organization (MSCWMO) received the required submittal items on August 10th, 2021 for the proposed Ruprecht Retaining Wall reconstruction, located at 737 Quentin Ave S within MSCWMO boundaries and in the City of Lakeland. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP).

The project, as submitted, contains sufficient information to determine conformance with the Policies and Performance Standards contained within Section 7.0 of the MSCWMO Watershed Management Plan

The MSCWMO recommends approval of the project with the following two conditions:

- 1. Plans shall include contact information including email and a phone number of the person responsible for inspection and compliance with erosion and sediment control.
- 2. The project receives an approved variance from the City of Lakeland Ordinance §155.016 (B) No structures shall be placed or grading done on any slopes greater than 12% (12 feet vertical rise in 100 feet horizontal distance).

This recommended approval is based on the technical review of the MSCWMO performance standards and does not constitute approval by the City of Lakeland. The enclosed checklist contains detailed information on project review qualifications and the policies and performance standards of the WMP. MSCWMO review process information can be downloaded from www.mscwmo.org. Please contact me at 651-330-8220 x22 or mdowning@mnwcd.org if you have any questions.

Sincerely,

Matt Downing

MSCWMO Administrator mdowning@mnwcd.org

4 5 5 Hayward Avenue, Oakdale, MN 5 5 1 2 8 Phone 6 5 1 . 3 3 0 . 8 2 2 0 x 2 2 fax 6 5 1 . 3 3 0 . 7 7 4 7 www.mscwmo.org

MSCWMO PROJECT REVIEW- SINGLE LOT RESIDENTIAL SUBMITTALS

This document is for guidance. Applicants should consult the MSCWMO Watershed Management Plan for specific requirements. MSCWMO may request other items during the review process in addition to those listed.

MSCWMO Project Review ID: 21-007

Project Name: Ruprecht Retaining Walls

Applicant: John Ruprecht

Purpose: Replace failing retaining walls on bluff

Location: 737 Quentin Ave S, Lakeland

Review date: 8/27/21

floodplain areas.

Recommendation:

ALL SUBMITTALS MUST CONTAIN THE FOLLOWING ITEMS:

ALL 3	SUBMITTALS MUST CONTAIN THE FOLLOWING ITEMS:
\boxtimes	1. Review Fee: Single lot residential \$350 fee.
	2. Grading plan showing grading limits, existing and proposed contours related to NAVD 1988 datum (preferred) or NGVD 1929.
\boxtimes	3. Location of existing and proposed permanent structures.
	4. Ordinary High Water (OHW) elevations and location of all existing water bodies.
\boxtimes	5. Location of all bluff lines.
	6. Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies must be a minimum of two feet above the 100-year flood elevation.

7. Delineation of existing wetland, shoreland, ordinary high water levels, drain tiling, and

- NA 8. Details of proposed buffer upslope of water resources including size and vegetation characteristics (when applicable).
- 9. Erosion/sediment control plan demonstrating locations, specifications, and details of the following items:

A. Erosion Prevention

- Stabilize all exposed soil areas (including stockpiles) with temporary erosion control (seed and mulch or blanket) within 7 days after construction activities in the area have temporarily or permanently ceased.
- ii. Identify location, type and quantity of temporary erosion prevention practices.
- iii. Identify permanent vegetation.

B. Sediment Control

- i. Sediment control practices will be placed down-gradient before upgradient land disturbing activities begin.
- ii. Identify the location, type and quantity of sediment control practices.
- iii. Vehicle tracking practices must be in place to minimize track out of sediment from the construction site. Streets must be cleaned if tracking practices are not adequate to prevent sediment from being tracked onto the street.

C. Inspections and Maintenance

- i. Applicant must inspect all erosion prevention and sediment control practices once every 7 days or after a ½" rain event to ensure integrity and effectiveness. All nonfunctional practices must be repaired, replaced or enhanced the next business day after discovery.
- ii. Plans shall include contact information including email and a phone number of the person responsible for inspection and compliance with erosion and sediment control.

D. Pollution Prevention

- i. Solid waste must be stored, collected and disposed of in accordance with state law.
- ii. Provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds).
- iii. Hazardous materials that have potential to leach pollutants must be under cover to minimize contact with stormwater.

E. Final Stabilization

- For residential construction only, individual lots are considered final stabilized if the structures are finished and temporary erosion protection and downgradient sediment control has been completed.
- ii. Grading and landscape plans shall include soil tillage and soil bed preparation methods that are employed prior to landscape installation to a minimum depth of 8" and incorporate amendments to meet Minnesota State Stormwater Manual predevelopment soil type bulk densities.
 - 1. Observe minimum setbacks for areas within the dripline of existing trees, over utilities within 30 in of the surface, where compaction is required by design and inaccessible slopes.
- NA 10. Details of proposed structural stormwater practices (Meets Minnesota Stormwater Manual guidelines)
 - A. Stormwater flows are diverted away from bluffs whenever feasible.
 - B. Volume control facilities must drain down within 48 hours, as required by the MPCA NPDES Construction Stormwater Permit.
 - i. The period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
 - C. The maximum water depth for volume control facilities is 1.5 feet.
 - D. Planting plan identified vegetation suitable for the hydrology of the basin.
 - E. Separation from seasonally saturated soils or bedrock is 3 feet or more for bioretention and infiltration practices.
 - F. Volume control facilities meet the following setback requirements:

Setback	Minimum Distance (ft)			
Property line	10			
Building foundation*	10			
Private well	50			
Public water supply well	50			
Septic system tank/leach	35			
field				
*Minimum with slopes directed away from the building				

G. Volume control is provided for the first 1.1" inch of runoff for all impervious:

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu.
	ft.)
xxxx sf * 1.1"= xx.xx cf	BMP #1 Volume =
xx.xx cf total required	BMP #2 Volume =
-	Total =

H. Construction Standards

- To prevent soil compaction, the proposed volume control facility must be staked off and marked during construction to prevent heavy equipment and traffic from traveling over it.
- ii. Facilities may not be excavated within 2.0 feet of final grade until the contributing drainage area has been constructed and fully stabilized.
- iii. Facilities are in-place during construction activities, all sediment and runoff must be diverted away the facility, using practices such as pipe capping or diversions.
- iv. Facilities installation must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
- v. Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
- vi. Prior to the release of any remaining fee or security, the owner must provide documentation that constructed volume control facilities perform as designed.

I. Details

- Include a standard cross section of the infiltration device similar to those identified in the Minnesota Stormwater Manual http://stormwater.pca.state.mn.us/index.php/Bioretention_plan_and_section_ndrawings
- ii. The cross section must detail the infiltration media used in the device.

 Typically, devices use Mix B as described in the Minnesota Stormwater

 Manual: A well-blended, homogenous mixture of 70 to 85 percent washed construction sand; and 15 to 30 percent MnDOT Grade 2 compost.

MIDDLE ST. CROIX WATERSHED MANAGEMENT

 455
 Hayward
 Avenue,
 Oakdale,
 MN
 55128

 Phone
 651.3300.8220
 x22
 fax
 651.3300.7747
 www.mscwmo.org

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspect	or Name: Aaron DeRusha	Inspection Date: 09/01/2021	
Project	Name: Scanlan Residence	Project Address: 125 Lakeland Shores Road	
Site is v		arges to an impaired or special water?	
Inspect	ion Type: Pre-construction	lacksquare Routine $lacksquare$ Rainfall $lacksquare$ Post-construction	
Rainfal	Amount: inches		
Overall	Site Grade:		
□ А	The site is in full compliance . All p	practices are in place and the site is well maintained.	
☑ B	The site is in compliance , but norr	nal maintenance activities are required.	
□ с	The site is not in compliance . Mai	ntenance or supplemental practices are required.	
□ D	The site is not in compliance . Eros controllable water resources or off-s	sion and sediment control practices are in poor condition and site impacts are likely.	
□ F	_	nce. Controllable water quality or off-site impacts have occurred. tiated unless immediate corrective actions are taken.	
Correct	ive Action(s) Required:		

Potential Areas of Future Concern:

Site grade is very low, perimeter control is not in place but offsite drainage is highly unlikely.

Were any discharges observed during this inpection? ✓ No ☐ Yes:

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)			√	
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	1			
Ditches/swales are stabilized 200' back from point of discharge				√
Pipe outlets have energy dissipation (within 24 hours of connection)				√
Construction phasing in accordance with the approved plan is being followed				\checkmark
Areas not to be disturbed are marked off (flags, signs, ect.)				\checkmark
Sediment Control Requirements:				
Perimeter sediment controls are installed properly on all down gradient perimeters	1			
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets				√
Erodible stockpiles have perimeter control in place				
Temporary sediment basin is built as shown on approved construction plans				$\sqrt{}$
Soil compaction is minimized where applicable	<u>\</u>			
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	V			
Perimeter controls are maintained and functioning properly	1			
Inlet protection devices are maintained and adequately protecting inlets				√
Temporary sediment basins are being maintained and properly functioning				\checkmark
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	V			
Tracked sediment is being removed within 24 hours	V			
Surface waters, ditches, conveyances, and discharge points have been inspected				
Other Requirements:				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place				√
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion				√
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment				√
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction				√
If required, buffer monumentation has been installed				√

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items or concerns:









MIDDLE ST. CROIX WATERSHED MANAGEMENT

Potential Areas of Future Concern:

Were any discharges observed during this inpection? ✓ No ☐ Yes:

Project is complete

455 Hayward Avenue, Oakdale, MN 55128 Phone 651.330.8220 x22 fax 651.330.7747 www.mscwmo.org

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

		Lakelar
Inspect	or Name: Aaron DeRusha Inspection Date: 09/01/2021	Arton
Project	Name: Hubbard Shoreline Stabilization	j
Site is v	within one mile of and discharges to an impaired or special water? \square No	
Inspect	ion Type: \square Pre-construction \square Routine \square Rainfall $ ot \square$ Post-construction	
Rainfall	Amount: inches	
Overall	Site Grade:	
☑ A	The site is in full compliance . All practices are in place and the site is well maintained.	
□в	The site is in compliance , but normal maintenance activities are required.	
□ с	The site is not in compliance . Maintenance or supplemental practices are required.	
□ D	The site is not in compliance . Erosion and sediment control practices are in poor condition and controllable water resources or off-site impacts are likely.	
□ F	The site is in severe non-compliance . Controllable water quality or off-site impacts have occurred. Enforcement proceedings will be initiated unless immediate corrective actions are taken.	
Correct	ive Action(s) Required:	

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	4			
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	4			
Ditches/swales are stabilized 200' back from point of discharge				√
Pipe outlets have energy dissipation (within 24 hours of connection)				√
Construction phasing in accordance with the approved plan is being followed				\checkmark
Areas not to be disturbed are marked off (flags, signs, ect.)				\checkmark
Sediment Control Requirements:				
Perimeter sediment controls are installed properly on all down gradient perimeters				
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets				√
Erodible stockpiles have perimeter control in place				
Temporary sediment basin is built as shown on approved construction plans				$\sqrt{}$
Soil compaction is minimized where applicable				\overline{A}
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	√			
Perimeter controls are maintained and functioning properly				√
Inlet protection devices are maintained and adequately protecting inlets				√
Temporary sediment basins are being maintained and properly functioning				√
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly				√
Tracked sediment is being removed within 24 hours			√	
Surface waters, ditches, conveyances, and discharge points have been inspected	√			
Other Requirements:				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place				√
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion				√
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment				√
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction				√
If required, buffer monumentation has been installed				√

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items or concerns:





MIDDLE ST. CROIX WATERSHED MANAGEMENT

Potential Areas of Future Concern:

Were any discharges observed during this inpection? ✓ No ☐ Yes:

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Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Inspect	tor Name: Aaron DeRusha	Inspection Date: 09/01/2021				
Project	Name: Riley Residence	Project Address: 2159 River Road S				
Site is within one mile of and discharges to an impaired or special water? $\ \ \ \ \ \ \ \ \ \ \ \ \ $						
nspect	tion Type: \square Pre-construction	☑ Routine ☐ Rainfall ☐ Post-construction				
Rainfal	I Amount: inches					
Overall	Site Grade:					
✓ A	The site is in full compliance . All	practices are in place and the site is well maintained.				
□ в	The site is in compliance , but nor	mal maintenance activities are required.				
□ с	The site is not in compliance . Ma	intenance or supplemental practices are required.				
□ D	The site is not in compliance . Ero controllable water resources or off-	sion and sediment control practices are in poor condition and site impacts are likely.				
□ F	•	nce . Controllable water quality or off-site impacts have occurred. itiated unless immediate corrective actions are taken.				
Correct	tive Action(s) Required:					

Page 1 of 3

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

	Compliant	Non-compliant	Under Review	Not Inspected
Erosion Prevention Requirements:				
Soils are stabilized where no construction activity has occurred for 14 days (including stockpiles)	V			
Disturbance of steep slopes has been minimized or stabilization practices designed for steep slopes are used	4			
Ditches/swales are stabilized 200' back from point of discharge				√
Pipe outlets have energy dissipation (within 24 hours of connection)				√
Construction phasing in accordance with the approved plan is being followed				√
Areas not to be disturbed are marked off (flags, signs, ect.)				√
Sediment Control Requirements:				
Perimeter sediment controls are installed properly on all down gradient perimeters	4			
Appropriate BMPs are installed protecting inlets, catch basins, and culvert inlets				√
Erodible stockpiles have perimeter control in place				√
Temporary sediment basin is built as shown on approved construction plans				√
Soil compaction is minimized where applicable				√
Maintenance and Inspection Requirements:				
Previously stabilized areas are maintaining ground cover	√			
Perimeter controls are maintained and functioning properly	√			
Inlet protection devices are maintained and adequately protecting inlets				√
Temporary sediment basins are being maintained and properly functioning				√
Vehicle tracking BMPs are in place at site exits and are maintained/functioning properly	4			
Tracked sediment is being removed within 24 hours	4			
Surface waters, ditches, conveyances, and discharge points have been inspected	4			
Other Requirements:				
Pollution prevention management measures for solid waste, hazardous materials, concrete and truck washing are in place				\checkmark
If dewatering is occurring, BMPs are being used to ensure clean water is leaving the site and discharge is not causing erosion				√
If being utilized, infiltration/filtration systems are marked and protected from compaction and sediment				√
If required buffers are preserved around all streams, rivers, lakes, and wetlands during construction	4			
If required, buffer monumentation has been installed				√

Erosion & Sediment Control Compliance Summary & Corrective Action Notice

Images of non-compliant items or concerns:



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Staff Report- August 2021

Administration

- Prepared September meeting materials
- Coordination of Grant and Permit Program
- Began Planning for 2022

Project Reviews

- 200 Chestnut-INFORM
- Ruprecht-ACTION
- Burton-ACTION

<u>Lily Lake Phosphorus Reductions for Delisting – CWF Grant C20-6055</u>

Description: Awarded \$513,500 for in-lake alum treatment and filtration basin to remove 120lbs of phosphorus from Lily Lake.

Activities This Month: Marking and clearing of trees is about to begin. Install will hopefully be about 1-month duration after that.

Staff: Bryan Pynn-WCD; Matt Downing-MSCWMO

Watershed Based Funding-Lily Lake Raingardens/LSCB Bluff

Description: \$39,636 CWF Watershed Based Funding was reallocated to Lake St Croix Small Communities Phosphorus Reduction CWF grant in 2020.

Activities This Month: See LSCSCPR Grant Phase I description below for activities.

Staff: Bryan Pynn - WCD

Lake St. Croix Small Communities Phosphorus Reduction Grant – PHASE I

Description: \$200,000 grant for stormwater quality improvement south of Bayport (2019-2021). Partnership with City of Lake St. Croix Beach to stabilize the bluff on the north side of town.

Activities This Month: Contractor has installed 410 LF of the project and has completed construction activities. Final payment of the grant was on the August meeting agenda. Aiming for close out of both grants by mid-September.

Staff: Bryan Pynn - WCD; Matt Downing – MSCWMO

Lake St. Croix Small Communities Phosphorus Reduction Grant – PHASE II

Description: \$158,000 grant for stormwater quality improvement south of Bayport (2021-2023). Implement practices in the LSCD South SWA area to achieve a load reduction of up to 7lbs of TP/yr.

Activities This Month: Awarded grant in January 2021. Project investigation has occurred in multiple locations across the watershed, including Bayport, Lakeland and Lake St. Croix Beach. Preliminary design for several basins will begin later this month in

Baytown Fup

Baytown Fup

Baytown Fup

Lakeland

Middle St. Croix Watershed Management Organization Member Communities
Afton, Bayport, Baytown, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, & West Lakeland

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Lake St. Croix Beach, as that has been the only area deemed viable to pursue at this times a Basin approved at the August meeting has since been deemed unfeasible and will not be pursued.

Staff: Bryan Pynn - WCD; Matt Downing - MSCWMO

3M PFAS Settlement MPCA Staff Reimbursement Grant

Description: Up to \$40,000 reimbursement of staff time for both the Administrator and consultant (Stu Grub with EOR) to participate in the development of the groundwater model for the PFAS contamination in the southern portion of the watershed.

Activities This Month: Additional materials were sent prior to the meeting, no further updates.

Staff: Matt Downing, MSCWMO; Stu Grub, EOR

Water Monitoring Program

Description: The MSCWMO water monitoring program includes the monitoring of flow at three sites. These sites have that equipment serves to collect data on the total volume of water flowing into Lily Lake at the Greeley Street Inlet, through Perro Creek at the Diversion Structure, as well as, the Perro Creek Diversion Structure Overflow. Water quality is also collected at the Greeley Street Inlet and the Perro Creek Diversion Structure on a monthly basis, as well as during storm events.

Additionally, the MSCWMO monitors two lakes, Lily and McKusick for several parameters from April-October. Data is collected on both lakes on a biweekly basis and includes: water level, clarity, pH, temperature and dissolved oxygen profiles, an aesthetics and user profile, and field conditions. Additionally, water quality samples are collected from the surface of the lakes and analyzed for total phosphorus, total Kjeldahl nitrogen, and chlorophyll.

Activities This Month: Lake sampling continues with ten samples collected on both Lily Lake and McKusick Lake. Seven samples have been collected at the Greeley Street Inlet and eleven samples have been collected at the Perro Creek Diversion Structure. Significant storm events in early and late August allowed for capture of storm flow grab and composite samples, respectively, and these sites.

Staff: Rebecca Oldenburg Giebel, WCD; Aaron DeRusha, WCD

Erosion and Sediment Control Inspections

Description: The MSCWMO has contracted with the WCD to conduct erosion and sediment control inspections for construction projects that have been reviewed and recommended for permit approval by partner communities.

Activities This Month: Inspections occurred at the 1635 Rivercrest- Stordahl, 2nd St Commercial/MN Party Bus, 2159 River Rd- Riley, 125 Lakeland Shores Rd- Scanlan, and 1175 Quinlan- Hubbard Bluff Stabilization sites. The 1635 Rivercrest project was found to be complete minus full stabilization of the lower slope of the bluff repairs. It appears impervious surface, in excess of approved plans, was constructed (a concrete

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patio and walkway), and follow up with the City is occurring on how to address this. The Composition of the additional impervious surfaces. The MN Party Bus site was found to have deviated significantly from approved plans, and construction of adequate stormwater treatment features may not be feasible. The site owner was notified several times of the required sizing and location of the features, but proceeded with laying of asphalt without notifying the WMO or City of the changes in construction. Follow up with the City for enforcement action or site modification is occurring. The 1175 Quinlan Bluff Stabilization project was found to be complete, and no concerns were noted at the 2159 River Rd and 125 Lakeland Shores Rd sites.

Staff: Aaron DeRusha, WCD

BMP Maintenance

Description: The MSCWMO has a maintenance obligation for its Capital Improvement Projects and projects funded by Clean Water Fund grants. The MSCWMO partners with the Washington Conservation District to fulfill this maintenance requirement.

Activities this Month: Vegetative maintenance at all 2019/2020 projects and the Stillwater Country Club. Annual CWF project inspections.

Staff: Cameron Blake, WCD

Erosion and Sediment Control Inspection, BMP Project, and Plan Review Database

Description: The MSCWMO has partnered with WCD to develop a new erosion control inspection, BMP project tracking, and project plan review applicant database via ESRI's ArcGIS Online. The database will increase efficiency of erosion control and BMP project reporting, the application process for project plan reviews, and serve as a replacement to the current Mapfeeder software.

Activities this Month: Inspection surveys, inspection report templates, and a dashboard for both internal staff and plan review applicants has been completed. Testing of the completed features will be conducted during the next round of inspections, and by submitting test materials to the plan review application dashboard.

Staff: Aaron DeRusha, WCD; Rebecca Nestingen, WCD

Meetings

- Lily Lake Basin Pre-Construction August 2nd
- Washington County Fair August 5th
- OPH-Baytown Site Visit August 6th
- 125 Lakeland Shores August 9th
- LSCB Project Scoping August 9th
- 200 Chestnut August 10th
- Audit Follow Up August 11th
- Arenson Site Visit August 19th