



**Call to Order:** Supervisor Walls called the June 6, 2019 Special Meeting of the Springfield Township Board to order at 6:00 p.m. at the Springfield Township Civic Center, 12000 Davisburg Rd., Davisburg, MI 48350.

**Roll Call:**

**Board Members Present**

Collin W. Walls	Township Supervisor
Laura Moreau	Township Clerk
Jamie Dubre	Township Treasurer
Marc Cooper	Township Trustee
Judy Hensler	Township Trustee
David Hopper	Township Trustee
Dennis Vallad	Township Trustee

**Board Members Absent**

None

**Others present:**

Troy Naperala, P.E.	AECOM
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**New Business—Mill Pond Dam Feasibility Report and Decision Matrix**

Supervisor Walls thanked all for attending the meeting and noted that the process will not be typical of a Township Board meeting. Troy Naperala will start with an overview of the Feasibility Report and alternatives for the dam. There is a place for public comment on the agenda but it is not at the beginning of the meeting. Typically public comment is for items not on the agenda; this is a one item agenda and the assumption is that after the overview, assessment of alternatives, and discussion of the Decision Matrix, the public will have more information to comment on. The comment period will be after discussion of the Decision Matrix scoring but before the Board proceeds to discuss next steps in the Feasibility Study.

1. Overview of Mill Pond Dam Feasibility Report

Troy Naperala, project consultant, explained that he will provide a quick overview of the alternatives presented in the Feasibility Report and then move into the decision matrix. For the decision matrix, the Board will actually fill out the spreadsheet during the meeting. There are a number of factors that the Board will weight as a reflection of the importance of those factors. Then the Board will rate how well each alternative meets



those factors. There are eight factors but the Board will only be rating seven tonight because the ratings for cost are already filled in—the least expensive alternative was rated 5 points (Outstanding) and the most expensive alternative was rated 1 point (Unsatisfactory). The remaining alternatives were rated on a linear relationship based on cost. After the alternatives are rated for each factor, the matrix will calculate the final scores. The actual scores show up at the bottom of the spreadsheet but those are blanked out until after all of the scoring is done; this is useful so that ratings aren't manipulated to get to a desired end result.

Mr. Naperala explained that through the Feasibility Study, AECOM looked at a number of alternatives for the Mill Pond Dam. For dam rehabilitation scenarios they explored the potential dam safety issues and how they might be fixed. For dam removal scenarios they looked at what the river and crossing would look like and how to restore the river corridor. The study ended up with a number of alternatives but ultimately there are two primary options. Alternatives A, B, C and D are all dam retention alternatives—they all involve some kind of upgrade and rehabilitation to the dam. Alternatives F, G and H are all some iteration of a dam removal scenario. Alternative E, which is displayed on the "Alternatives Being Considered" slide, was an alternative to raise the embankment but this was eliminated for consideration because it would induce flooding upstream.

Alternative A looks at repairing and replacing the existing spillway pipe. From the AECOM evaluation, the pipe that runs through the dam is deformed and there are some long-term dam safety issues with it. This alternative replaces that pipe and takes care of the specific structural issues but does not address any of the other dam safety issues they identified. Primarily a new 36" pipe would not convey the required capacity of water during a 100 year flow event. There is still a dam safety issue because that would mean water would go up over the road which imperils the traveling public and potentially leads to failure of the dam.

Alternative B takes the repair a step further; the existing pipe is replaced by four 48" pipes to increase the capacity. Alternative B would meet the 100 year flow event so this alternative corrects the structural deficiencies of the pipe and also addresses the dam safety concern about the amount of flow that the principal spillway can convey. This would mean the dam would require a larger inlet structure and a more robust outlet structure, but we can eliminate the grouted riprap on the downstream face of the dam. Alternative A would still require some armoring because of the road overtopping.

Alternative C again takes it up a notch; instead of four pipes one box culvert is proposed. The spillway goes into a box culvert and to an outlet structure for energy dissipation. This alternative is very similar to B but it just changes the configuration from four pipes to one large box culvert.



Alternative D would have a spillway that flows to a concrete channel and underneath a bridge that would convey traffic. This would involve a larger main structure and would convey a larger flow. Alternatives A, B and C are pretty similar in construction cost and pretty similar in lifetime maintenance cost, but D would about double those costs because of the infrastructure. There are also some permitting issues and some potential construction challenges with a bridge related to the road alignment. There would need to be much more involvement of the Road Commission and potentially some larger changes that could upset the scope of this project.

For the dam removal alternatives, AECOM did an evaluation of different channel elevations to find the least cost option that weighed the benefits of the stream restoration. For all of the dam removal alternatives, there are two cost options based on the channel design and engineering.

Alternative F provides a four-sided concrete box culvert to convey the water under the roadway. Alternative G is an arched culvert so it would have a natural bottom. The distinction there for a natural resources restoration project is it's preferred to have a natural bottom; it's better for the aquatic species, it helps with fish passage, and also permitting agencies and grant funders prefer that. And alternative H is a bridge—probably the ideal version because of the flexibility of the length of the span, the natural bottom and the shortest horizontal length for walking underneath the bridge. For costs, F and G are similar and H is several hundred thousand dollars more.

AECOM also projected 100 year maintenance costs for all alternatives; generally for the dam removal options, it would be about 1/3 the maintenance costs compared to dam retention. The higher maintenance cost of the dam retention options is due to the regular maintenance and inspections required for all the parts of the dam. Dam removal requires maintenance initially to deal with invasive species and possible erosion in the restored river corridor but then those costs taper off over time.

Mr. Naperala provided an overview of the estimated construction costs, contingency, engineering/permitting and construction oversight for each of the seven options. He summarized that alternatives A, B and C are all around \$1 million, with D being more with a bridge. The dam removal alternatives F, G and H are all around \$600,000 to \$700,000 more than dam retention options; that difference reflects the cost of channel restoration. All of the alternatives require replacing the water conveyance system under the road but the dam removal alternatives have the added cost of restoring the river corridor.



Mr. Naperala then summarized the lifecycle costs for all alternatives. All dam retention alternatives would be around \$300,000 for maintenance and dam removal alternatives would be roughly 1/3 of that cost.

Troy Naperala displayed the scoring matrix on the screen which includes a spreadsheet listing the alternatives by column and the decision factors by row. The Board members will decide together how to fill in the numbers on the spreadsheet and the first step is to assign a weight to each of the eight factors. Mr. Naperala summarized the factors: Community Factors, Recreational Benefits, Historical Significance, Ecological and Environmental Factors, Dam Safety Implications, Permitting Implications, Costs, and Funding. As previously explained, the Cost ratings were already filled in by AECOM based on the combined construction and lifecycle cost of each alternative. To begin, each factor is assigned an equal weight of 12.5% and the Board members can modify the weightings based on the relative importance of each factor out of a total 100%.

Mr. Naperala reviewed the factors as outlined in the Feasibility Report. Each factor includes several considerations. For Community Factors, Mr. Naperala explained that the Community Factors include several considerations such as, “Does the alternative support a vibrant and attractive downtown Davisburg?” and, “What is the potential to affect real estate values within the community?” and others. These considerations could be an aesthetic preference for one alternative over another. For Recreational Benefits, the consideration is what is the recreation priority—is it trails, fishing, swimming beach? The weighting for the factor could be how important recreation is to this community, but the actual rating number would reflect whether you think that alternative is good for the type of recreation you value. Historical Significance is an interesting factor—the consideration in the report is, “Does the alternative recognize and respect the historical significance of the Mill Pond Dam?” Mr. Naperala explained that when he wrote those words he meant historical in the academic sense; from the standpoint of the SHPO office (State Historic Preservation Officers), does this pond/dam get to the level of having historical significance to the State of Michigan? Mr. Naperala suggested that the Historical Significance factor should be taken that way and any considerations related to how long the pond has been here should be considered in Community Factors. The Mill Pond Dam is not a historical structure and the pond is not historical in an academic sense but it has been part of the community for a long time. Ecological and Environmental Factors should also be considered in the academic sense to assess if the alternative is an improvement to the environment. We would look at this and consider that the dam is impeding the flow of water and creates a non-native habitat; the dam removal would be a restoration to a more natural environment. Mr. Naperala encouraged the Board Members to think of the environment in an academic sense rather than considering, for example, if pond fish or river fish would be preferred; the factor should be thought of from a more native perspective. For Dam Safety, this is an engineering consideration; which one of the



alternatives best addresses the dam safety issues we identified? With dam removal we would eliminate dam safety concerns, but alternatives B, C and D rehabilitate the dam and address the safety concerns. Alternative A still has the potential to overtop the road so that might get a different rating than B, C and D. For Permitting Implications, that factor comes down to how likely is the project going to receive required permits. Costs are already filled out. Then for Funding, the consideration is whether or not grants are available for the alternative.

Mr. Naperala noted that even though there are eight alternatives, there really are only two primary options. As the Board assigns ratings, they can lump together the dam rehabilitation options and make adjustments among those alternatives if needed. The same is true for dam removal alternatives; F, G & H might get the same score for a factor but some might have tweaks for differences between them.

## 2. Assessment of Dam Disposition Alternatives

The Board was directed to begin discussion of the weighting of the eight factors. Mr. Naperala suggested that this is about determining which of the factors are more important to the decision.

Supervisor Walls confirmed for the audience that this meeting is the first time that the Board has met to go over this information. Each Board member has been to at least one Public Information Meeting and has received the Feasibility Report. Knowing the Board members, Supervisor Walls is positive each has read the report, probably twice and maybe a dozen times. The Board is in the same place as members of the audience with two exceptions; Laura Moreau and Denny Vallad served as Township Board representatives on the Mill Pond Park Committee which also included representatives of the Park Commission, staff and representatives of Oakland County Parks and Recreation.

Supervisor Walls started the weighting discussion by stating that Community Factors should be at least 1/3 of the overall weight, if not more. The other Board members offered their suggested weights for Community Factors which ranged from 15% to 20%. It was determined that Community Factors would be weighted 20%.

For Recreational Benefits, Treasurer Dubre, Trustee Hopper and Clerk Moreau weighted the factor 15%. Trustee Hensler, Trustee Cooper, Trustee Vallad and Supervisor Walls weighted it 10%. Based on majority, Recreational Benefits was weighted 10%.

For Historical Significance, Mr. Naperala reminded the Board that this is the factor to consider from the academic, SHPO office standpoint. Board members discussed whether the factor should have any weight at all given the lack of significance to SHPO. Trustee



Vallad asked if the idea for historical significance would be to return the dam to how it existing in the 1800s. Mr. Naperala explained that historical preservation from an engineering standpoint would consider, is it a unique design? Is it a one of a kind design? Is it not unique but designed by someone really famous or by a group of people who were important to the area? In Mr. Naperala's view, there is not much of historical significance to the dam but that is not to say the pond isn't important to the community, but that consideration would be captured with Community Factors. The majority of Board members selected 5% so it was determined to assign 5% weight to Historical Significance.

For Ecological and Environmental, Clerk Moreau and Treasurer Dubre assigned 25%, Trustee Hensler stated 30%, and Trustee Hopper assigned 20% but thought it was too low. Supervisor Walls offered 15%. Trustees Cooper and Vallad offered 20%. Clerk Moreau was concerned her weighting of 25% was too low and was surprised at the lower values of some Board members. Trustee Hensler stated this is her highest ranked factor and believes it is very important. Supervisor Walls stated he believes the factor is very important but his weightings already exceed 100%. Trustee Hopper added that this is his highest ranked factor and he would be happy at 25%. Trustee Hensler agreed to come down to 25%. With a majority, the Board assigned a weight of 25% for Ecological and Environmental Factors.

For Dam Safety, Clerk Moreau stated that, of course, safety would be the Board's number one concern, but at the same time the Board is addressing dam safety by doing something right now. Any choice would address safety, except maybe not alternative A, so she assigned a low weight of 10%. Trustee Vallad assigned 20% noting he's a former safety engineer. Treasurer Dubre stated that safety is the entire reason for looking at alternatives and safety is also part of Community Factors; she believes safety is addressed and so assigned a weight of 5%. Trustee Hopper assigned 10% and agreed that the Board is going through this exercise to address a lot of the safety issues. Supervisor Walls also assigned 10%. Board members decided on a weight of 10%.

Mr. Naperala explained that Permitting Implications is similar to Dam Safety Implications; with the exception of alternative A, they are all permissible options. Supervisor Walls clarified that Mr. Naperala would mean permissible by the State, but there is still another critical permit from the Road Commission. Mr. Naperala agreed and said that permit could have an implication for the bridge options. Supervisor Walls stated that he had the factor at 5%. Several Board members also ranked at 5% and that value was selected.

For Costs, Treasurer Dubre offered 10%, Trustee Hensler was at 5%, Trustee Hopper and Supervisor Walls were at 15%. Clerk Moreau explained she went low on cost for the same





reason she went low on safety—we have several very expensive options and we have to pick one. Moreau believes a bigger consideration goes into funding because cost is really about the net cost, so she’s at 5%. Moreau believes a higher weight should go to Funding; in the end the issue is what will be the cost to the Township and the County, not the ticket price. Trustee Hensler was also at 5% because she believes this is a long-term fix and whatever is done should be done correctly, not selected because it’s the lowest cost. Treasurer Dubre was at 10% because she believes the life cycle costs are important and they are included in that cost. Trustee Cooper was at 10% because he is “from the school” that grants still represent a cost. Tax dollars are tax dollars and the money got into the grant somehow so it’s all what the cost is to do the project. Trustee Hensler noted that some grants are privately funded, so she doesn’t entirely agree with Trustee Cooper. Clerk Moreau added that the money is there regardless. Every year the DNR and various public and private groups make the money available; if you don’t apply it just goes to another community’s project. Supervisor Walls noted that the average of all weights is 10%; Board members were satisfied with 10%.

Funding and Grant Sources was the final factor and a majority of Board members assigned 15%. Supervisor Walls stated that he considered selecting 0% but ended on 2%. Walls does not believe that the decision should have a heavy weight on potential grants. Looking at the project, it should be the best for the community. Clerk Moreau stated that if the Township didn’t have a long history of receiving grant funding for the great resources that we have here, especially the Shiawassee River corridor, she might agree with Supervisor Walls. However, Clerk Moreau feels very comfortable assuming some grant funding would be available. Supervisor Walls clarified that he’s not suggesting that grant funding would not be available, he’s suggesting that it shouldn’t be a key element to the choice of what’s better for the environment, the community, etc. Treasurer Dubre noted that the majority is at 15%. Treasurer Dubre added for the record that when the Board has made decisions regarding grants and funding, priorities were made based on what funding is available. Treasurer Dubre stated this has been the case numerous times since she’s been Treasurer, in relation Fire, Police, road projects, therefore she completely disagrees that the Board would not make the best decision for the community to consider opportunities where grants are available. Supervisor Walls disagreed that was his point.

Troy Naperala opened the rating of the alternatives by explaining the rating guidelines. Ratings will be assigned from 5 points for Outstanding, meaning the alternative fully addresses all aspects of the criterion, down to 1 point for Unsatisfactory, meaning the alternative does not address all aspects of the criterion and does not meet requirements.



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### **Community Factors**

Mr. Naperala suggested that all dam repair alternatives would get the same rating and all dam removal alternatives would get the same rating. Supervisor Walls stated that alternative A should not get the same because it doesn't address the safety factor. Clerk Moreau saw some benefit to alternative A from a Community Factors standpoint because it's the alternative that would have the least impact on the current aesthetic. Trustee Hensler rated the repair alternatives at 2 with a 3 for the bridge option. Clerk Moreau does not believe that the pond is currently an attraction for downtown and it provides no aesthetic or economic benefit; she rated the replace alternatives at 2 with a 3 for the bridge option. Trustee Hopper gave a rating of 1 with a 2 for the bridge option due to the potential to address road alignment. Trustee Cooper does not believe the Board needs to consider alternative A at all; it does not meet the standards and it can't be permitted. Cooper suggested that alternative A should have ratings of 1 for every factor.

Mr. Naperala asked if there is consensus to remove alternative A from the ratings. Board members agreed that it makes no logical sense to select A due to the limitations. The column for A was filled in with 1 ratings for all factors and Board members agreed not to assess this alternative.

Trustee Cooper gave a higher rating to alternative C because he is not in favor of a bridge. He believes the other alternatives could allow for road realignment and the box culvert of alternative C could allow for pedestrian crossing on a widened road. Trustee Cooper rated C at 3 and alternatives B and D at 2. Supervisor Walls indicated his ratings were the same as Trustee Cooper's. Treasurer Dubre rated 1 for B and C and 2 for D. For the Community Factors, board members decided to rate all dam replacement alternatives at 2 (with 1 for alternative A).

Mr. Naperala explained that the spreadsheet did not distinguish between the two channel profiles for the dam removal alternatives. The costs factored into the matrix are reflective of the channel 2 alignment which is the higher cost. Trustee Vallad offered that he prefers the channel 2 option. Mr. Naperala stated that the channel could be a later decision, however the Board members expressed a preference for the channel 2 option.

Clerk Moreau stated for the removal options, she gave a 3 for the box culvert, 4 for arch culvert and 5 for the bridge. Moreau added that a rating of 5 is beyond just meeting the requirements, it provides added value; Clerk Moreau believes a bridge would be an added value but understands that it likely would not get permitted by the Road Commission. Trustee Hopper agrees that a bridge would be ideal but recognizes that the State can't maintain the bridges there are now. Trustee Cooper is not in favor of a bridge and believes the open bottom arch culvert would look much better. Cooper believes the open





bottom culvert looks more natural and would require less maintenance. He rates the removal options 2 for box culvert, 3 for arch culvert and 2 for bridge. Supervisor Walls also rated 2, 3, 2 for the removal alternatives. The final rating for the removal options was 3 for box culvert, 4 for arch culvert and 2 for bridge.

### **Recreational Benefits**

Mr. Naperala stated this is a difficult factor to rate because everyone recreates differently.

For repair alternatives, Trustee Hensler rated all as 2 because keeping the dam doesn't change the recreational options and having the pond makes connectivity to downtown very challenging. Treasurer Dubre rated 1 with a 2 for the bridge option. Trustee Hopper rated all a 1 because none promote pedestrian connectivity and the Township has already seen the use of the pond dropping off dramatically other than occasional fishing. Hopper does not believe the repair alternatives address aspects of the criteria. Supervisor Walls does not see what recreational activity has to do with maintaining the pond. Board members decided to rate all repair alternatives at 1.

For removal alternatives, Trustee Hensler rated all at 4. Treasurer Dubre also rated all at 4. Trustee Hopper rated all at 3 because the alternatives meet the criteria with few weaknesses but he sees pluses and minuses for all alternatives. Clerk Moreau stated she is very comfortable rating all alternatives at 4 which is a rating of "acceptable." She does not see any weaknesses from a recreational standpoint to having a flowing stream and opportunities for pathways and connectivity through town. Supervisor Walls would give a rating of 3 at the most, primarily because we know what options might be for recreational benefit but we don't know what they're going to be. We can't say dam removal will maximize recreational benefit because we don't know other than landscaping portions what actually will go there. Clerk Moreau added that she approached this thinking about what opportunities open up and the ways that we could meet demand and interest of the community from a recreation standpoint. Clerk Moreau is also considering the current Board, Park Commission and staff that we have and the priorities that are well established for pathways, connectivity and also to provide access down to the water. The Township's Strategic Plan already identifies the priority of pathway connection from the Civic Center to Mill Pond Park; we've already identified that as a community priority and need. Clerk Moreau agrees with Supervisor Walls that there are a lot of steps for community input to determine how to reimagine and revitalize Mill Pond Park; but in terms of the opportunities that would open up and what we've already identified we're trying to achieve in our community, we have a pretty good direction already outlined. Clerk Moreau would not want to rate lower than a 4. Supervisor Walls replied that Clerk Moreau's direction is correct, but the possibilities discussed or shown



on the rendering are not part of what we're being asked to review. On a survey of members, the majority was in favor of rating the removal alternatives at 4.

### **Historical Significance**

Clerk Moreau suggested that all alternatives should be rated 3 for Satisfactory. Trustee Hensler doesn't understand how to rate something that isn't there. Supervisor Walls gave all 2 across the row for repair and removal options. Mr. Naperala explained that the way the matrix works, it doesn't affect the final scoring if all alternatives are given the same score for a factor. Board members decided to rate every alternative at 2.

### **Ecological and Environmental Factors**

Mr. Naperala noted that this is the Board's highest weighted factor.

Trustee Hensler stated she has all the repair alternatives rated as 1; leaving the dam in place nothing changes or improves. Clerk Moreau agreed and indicated she also gave all 1 for repair alternatives. Trustees Hopper and Vallad also gave all 1. Treasurer Dubre and Supervisor Walls agreed with 1. The repair alternatives were rated 1.

For remove options, Trustee Hensler assigned 3 for box culvert, and 5 for both arch culvert and bridge. Clerk Moreau agreed but offered a rate of 2 for the box culvert. Trustee Hopper rated 3, 4, 4 but would go down to a 2 for the box culvert. Treasurer Dubre and Trustee Vallad both rated 2, 4, 4. Trustee Cooper rated 2 for box culvert, 4 for arch culvert and 2 for a bridge. Board members discussed bridges from an environmental standpoint. The final rating was assigned as 2 for the box culvert, 4 for the open bottom arch culvert and 4 for the bridge.

### **Dam Safety Considerations**

Mr. Naperala stated that, as a dam engineer, alternatives B, C and D (A had already been ruled out) have the same dam safety implications. There may be some small differences in the engineering but in the case of scoring the matrix, they would be the same.

Trustee Hopper indicated he had all rated as 2 because of the safety inspections required. The three alternatives meet the principal spillway flow even but would still be subject to inspections. Board members decided to rate alternatives B, C and D at 3.

For removal options, Treasurer Dubre and Clerk Moreau rated all 5. Supervisor Walls noted that the bridge would be subject to different safety inspections, even though the



dam would be gone. Board members rated the box culvert at 4, the arch culvert at 4 and the bridge at 3.

### **Permitting Implications**

Mr. Naperala explained that every project has permitting issues whether you're fixing a dam or removing it. The repair options are going to be pretty equivalent, but the bridge rating could go down a bit because of the Road Commission.

The Board determined to rate the repair options B at 4, C at 4, and D at 2; and the remove options F at 4, G at 4 and H at 2.

### **Cost**

Troy Naperala reminded the Board that Cost has already been filled in. The ratings were based on a formula and so do not appear as whole numbers.

### **Funding and Grant Sources**

Mr. Naperala explained that there are funding sources to repair dams but they typically are for mitigating hazards such as flood and protecting structures. This dam is not a recognized flood control structure so it's highly unlikely that you'll get any money from FEMA or other disaster recovery agencies to repair the dam. Mr. Naperala would not say there are no grants for repair, but it is unlikely that this dam repair would be perceived very positively by the grant agencies.

Supervisor Walls and Trustee Cooper rated the repair alternatives at 2. Trustee Cooper believes there is a chance and possibly some private funding could be available. Treasurer Dubre rated at 1 with a 2 for the bridge alternative. Clerk Moreau gave a 1 rating to alternatives B, C and D noting that it would be hard to make a case for grant funding to retain a dam when there are grant requests just upstream and downstream for conflicting priorities. Trustees Hopper and Vallad also assigned 1 ratings. The final scoring was 1 for all repair options.

For remove options Mr. Naperala explained that any project that has greater benefit to aquatic species would be ranked better by the DNR.

Trustee Cooper offered rates of 2 for box culvert, 3 for arch culvert and 2 for bridge. Clerk Moreau offered 2 for box culvert and 4 for each arch culvert and bridge. Clerk Moreau added that with the DNR in the process of removing the Trout Pond Dam upstream and considering that a removal project would be an interagency effort among the Township,



County and DNR, and with the DEQ already involved as part of the sediment testing of the two ponds, all of that combined would make this project pretty attractive. Trustee Hopper rated 3 for box culvert, 4 for arch culvert and 3 for bridge; he lowered the bridge rating because it would be starting from a higher cost and he does not believe grants will offset the difference. Supervisor Walls noted the natural bottom of alternative G and rated it a 4 with 3 for alternatives F and H. Trustee Vallad had the same ratings as Supervisor Walls. Board members decided to rate alternative F (box culvert) at 3, G (arch culvert) at 4 and the H (bridge) at 3.

3. Discussion on Decision Matrix Scoring of Alternatives

Troy Naperala revealed the Total Score within the decision matrix. (shown below)

DAVISBURG MILL POND DAM FEASIBILITY STUDY DECISION MATRIX								
Factor	Weight (%)	Repair and Retain Dam				Remove Dam		
		Alt. A	Alt. B	Alt. C	Alt. D	Alt. F	Alt. G	Alt. H
Community Factors	20.00%	1	2	2	2	3	4	2
Recreational Benefits	10.00%	1	1	1	1	4	4	4
Historical Significance	5.00%	1	2	2	2	2	2	2
Ecological and Environmental	25.00%	1	1	1	1	2	4	4
Dam Safety Implications	10.00%	1	3	3	3	4	4	3
Permitting Implications	5.00%	1	4	4	2	4	4	2
Costs	10.00%	4.8	4.7	5	1	2.2	2.6	1
Funding	15.00%	1	1	1	1	3	4	3
<b>Total Score</b>	<b>100.00%</b>	<b>1.4</b>	<b>2.0</b>	<b>2.0</b>	<b>1.5</b>	<b>2.9</b>	<b>3.8</b>	<b>2.9</b>

This decision matrix was completed June 6, 2019 by the springfield Township Board.

Trustee Hensler stated she is very happy with the open bottom arch culvert winning. Trustee Vallad commented on how the matrix system flushed out all the discussion and considerations; he noted that the open bottom arch culvert was the alternative that he started with as a choice before he got into the analysis.

Mr. Naperala explained that what he likes about the decision matrix is that it's a great way to take a lot of subjective thoughts and feelings about a project and try to quantify it. Whether you are fond of the outcome or not, this is how to quantify where the group is overall, what they valued and how the ranked.



Supervisor Walls asked Mr. Naperala if it is safe to say that this endeavor is one of what would be “many sticks in the bundle” that we’ll arrive at a final decision.

Mr. Naperala stated that it is up to the Board how this outcome would be used to make a decision. In his experience, Mr. Naperala has seen boards follow the outcome and others not follow.

Supervisor Walls asked if this is the final decision or is it based on the 90% report at a point where cost is weighted very heavily with a 40% contingency and a wide range of probability. Walls offered that “when the rubber meets the road” cost could have a swaying factor. It is hard to look at the criteria we had before us and judge unemotionally, to the extent it is possible, what we’re being asked to do. And based on that, this is how the analysis came out. Supervisor Walls believes that some of the analysis could change over time.

Mr. Naperala stated that in a project like this it is always good to have various decision points along the way. You look at the information in front of you and it points you in a certain direction, as we collect more information you get more detail about costs. Sometimes you find red flags that can kill a project, sometimes you find things that make a project more beneficial. But revisiting priorities to make sure the project, as it progresses forward, still meets the original vision is very much a best practice.

Clerk Moreau noted that the Feasibility Report is 90% complete not because the investigation portion is still underway. The public input portion, the decision matrix results, and final recommendations need to be wrapped up. But there isn’t additional ecological, environmental, or engineering work that is left to do. We have the data for the Feasibility Study.

Mr. Naperala concurred and explained that going on to the next phase would require detailed engineering work.

Clerk Moreau added that it would not be the intent to go into the next phase and engineer more than one alternative. That would be very expensive. Clerk Moreau wants to clarify what Supervisor Walls meant about his bundle of sticks analogy.

Supervisor Walls explained the concept of bundle of rights but noted that it might not fit the situation.

Trustee Cooper asked at what point the Township and County would work together to make a final decision.



Clerk Moreau stated that there are three representatives from the County here tonight and requested their input.

Melissa Prowse, Supervisor of Planning & Resource Development for Oakland County Parks, explained that this has been a joint effort from the start. The Oakland County Parks & Recreation Commission (OCPRC) has been updated along the way and received a presentation on the 90% report yesterday at their regular meeting on June 5. It was explained to OCPRC that the Springfield Township Board would go through this process tonight which is important so that the Board can come to a decision for the community. We are partners but the dam is in your community so the intent was for the Township to work through the decision factors and make a recommendation to the OCPRC and make sure they agree with that.

Clerk Moreau confirmed that OCPRC would review the decision matrix at the July 10 Commission Meeting. At that point, depending on what the Oakland County Parks & Recreation Commission determines, there might be some additional back and forth.

Supervisor Walls stated that would end the feasibility stage of the decision making process. Walls explained that in both of the public input sessions it was clear in the minds of some that this was a fait accompli, but the Board had not even met to begin the decision making process until tonight.

#### 4. Public Comment

Marlene Oaks asked, given this is a road not just a dam, what aspect does the County Road Commission have to do with this? Will the Road Commission contribute to any of this?

Troy Naperala explained that the road will be maintained by the Road Commission. If this project goes forward, the Road Commission would be involved in engineering.

Mrs. Oaks stated that this would cost Springfield more money to get the Road Commission engineers involved.

Mr. Naperala explained that the review is part of the Road Commission engineers' job, but they would not be doing the actual engineering. The cost of replacing the road is already factored into all of the alternatives, but the Road Commission did not indicate any contribution to the project.





A gentleman who stated he is new to Michigan asked, if it's a community decision to remove the dam, why did we consider the first three options? Why did Melissa state it was a community decision if the community doesn't have a consensus.

Clerk Moreau explained that Oakland County owns the dam, they are partners in this project and they want to hear a recommendation from the elected body of Springfield Township prior to making their review of the alternatives—not that there was a vote of 14,000 individual residents of the Township.

Jean Vallad thanked the Board and Mr. Naperala for working through the matrix and providing great information.

Nancy Strole wanted to express her thanks for the entire process. She stated it was certainly inclusive in reaching out and very thorough.

Trustee Hensler thanked everyone who worked on this project for their hard work to bring together all this information. It's been a very well thought out and thorough process and all the details regarding the many options have been extremely informative. It's not an easy decision but she believes the Board has been given more than ample facts to make the best decision for the community. Trustee Hensler would, however, like to comment on those residents who chose to put the blame for the situation on the Springfield Parks & Rec Department. Hensler believes their unwarranted and unjustified accusations regarding the beach at Mill Pond had nothing to do with the condition of the dam and, speaking for herself, will have no bearing on her decision.

John Little noted that a lot of the discussion has focused on the dam and the roadway, but he hasn't heard anything about the upstream area. There are a lot of residents that live on the river off Broadway, himself included. His neighbor two houses down was unaware that anything is going on. He wants to know if the pond is drained would all the water upstream be drained.

Mr. Naperala explained that it would depend on the structure of the upstream railroad crossing. It's an option to maintain the existing water level upstream or it would be restored.

Ruth Ann Hines asked how wide the stream is envisioned to be.

Mr. Naperala explained that, based on measurements, the stream bank would be twelve feet from bank to bank and about 1 foot deep.

Ms. Hines asked what would happen to the property next to Blanche's house.



Marge Garrison asked whose responsibility will it be to maintain the area that had been the Mill Pond.

Mr. Naperala explained that it looks pretty bad during construction but vegetation is planted based on direction from the property owners. The cost estimates provided did include the cost of plantings and seed to replant the impoundment.

A gentleman asked if the river is navigable or not because the Army Corps of Engineers might have to be involved.

Mr. Naperala explained that the issue is already part of the permit implications.

Blanche Barber stated that kayaking would not be possible because there's only going to be a little bit of water.

A resident who lives on Long Lake disagreed with those who stated you can't kayak. She has kayaked in 1 ½ ft of water all around Michigan, including the Crystal River. If you kayak from here all the way to Holly there are many places you have to get out but there are other places where the stream is only a few feet wide and you can kayak it.

Marlene Oaks wanted to know about riparian law and what the ownership rights are for those residents.

Mr. Naperala explained that AECOM did pull deeds and ownership information on the properties. In the State of Michigan you own the land but not the water. For a project like this, homeowners can't do anything to control the owners of the dam and can't require that the dam remain in order to keep the water level. The property owners can determine who they allow access onto their property. It would be a benefit to the project and to the property owners to have access to the property for restoration.

Supervisor Walls stated that most of the property descriptions that he's seen in this area do not run to the water's edge. There is a defined platted lot. Mill Pond Park has a defined legal description and so does the land under the pond which is owned by Oakland County.

Mr. Naperala provided photos of restoration projects showing the progression from construction through several years after completion.



## 5. Next Steps in Feasibility Study

Supervisor Walls asked if the Board needs to make a recommendation or just submit the results of the decision matrix.

Clerk Moreau asked for input from the County. She asked if it would be sufficient to just forward the results of the matrix or if the County is looking for some formal action from the Board.

Melissa Prowse indicated that she would like to have more than just the spreadsheet to say this is how it worked out and have the Oakland County Parks Commission assume that's the recommendation when it's not. Having something from the Board indicating how they would like to move forward would be helpful.

Supervisor Walls stated what he believes we're being asked to do is to recommend the results of the matrix, not make a decision based on a feasibility study.

Clerk Moreau stated that the purpose of the Feasibility Study is to help us make a decision on how to move forward. So to separate a decision on how to move forward from the results of a feasibility study is where there seems to be a disconnect.

Supervisor Walls stated he is not prepared to make a decision on how to move forward until Oakland County Parks does the same thing. This is our record of what we did.

Treasurer Dubre stated, as far as the variances and differences, if we're not making a decision to head in a specific direction to give Oakland county parks an idea of a direction we want to go, how would we gain any additional information? We were given all this data to determine a direction. We're not going to run dual engineering, the Board should recommend a direction based on the results of the analysis.

Marlene Oaks asked about what about all the rest of us, what about the residents?

Ruth Ann Hines said there has been input tonight but the Board has already made a decision.

Clerk Moreau answered this is the first meeting that Ms. Hines has attended but there have been other meetings and information has been available for several weeks. This is the first time that there was an official meeting of the Township Board to assess the alternatives.



Supervisor Walls explained that the Board has both the blessing and the curse to represent 14,000 people.

Trustee Hensler stated that the Board came to a decision and she feels strongly that it should be the recommendation to Oakland County.

Supervisor Walls stated that is fine as long as it is stated it was based on a certain set of criteria.

- **Supervisor Walls moved that the Springfield Township Board has completed the Special Meeting Decision Matrix based upon specific considerations and factors, the result of which will be made available to Oakland County Parks and others. That result is the reflection of the course of action the Township recommends to follow. Clerk Moreau supported the motion. Vote on the motion, Yes: Cooper, Dubre, Hensler, Hopper, Moreau, Vallad and Walls; No: none; Absent: none. The motion carried by a 7 to 0 vote.**

Supervisor Walls asked if there are any other comments.

Nancy Strole stated that she can understand some of the comments made tonight but wants to reiterate that the Board did a commendable job in an outreach to the community including the web page, making the Feasibility Report available for download, mailings, public information meetings, even before the Board met as a group. At some point there is responsibility among all the residents to find out what's going on.

Hearing no additional comments, Supervisor Walls adjourned the meeting.

**Adjourned:** 8:41 p.m.

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Collin W. Walls, Supervisor

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Laura Moreau, Clerk