

Stormwater Advisory Board

March 13, 2015

I. Welcome and Call to Order the regular meeting of the Stormwater Advisory Board. The meeting was called to order at 8:04 am on March 13th, 2015 in the W.A.T.E.R. Center by Chris Bohm (Chair).

Present

Board Members

Greg Allison
Rich Basore
Chris Bohm
Don Kirkland
David Leyh
Mitch Mitchell
Gary Oborny
Joseph Pajor
Jim Weber

Absent

Board Members

Hoyt Hillman

City of Wichita Staff

Jim Hardesty
Mark Hall
Joe Hickle

City of Wichita Staff

Dale Goter (CMO)
Don Henry

Visitors

Trisha Moore
Matt Unruh
Scott Lindebak
Karma Mason
Gary Mason
Sandy McDonald
John McDonald
Daniel Schrant
Tom Stiles
Ron Graber

II. Approval of Minutes

Bohm opened the meeting by welcoming everyone to the meeting and he stated that he would like to recognize Gary Mason, Deputy Secretary, who joined in to listen to the SWAB. Bohm also asked that everyone go around the room and introduce themselves. After introductions Bohm asked that the board to review the minutes for approval. Weber moved to approve the November minutes, unknown member seconded, board motioned and November minutes were approved. Bohm then moved to the January 9th, 2015 meeting minutes, unknown member forwarded a motion to approve the minutes and an unknown member seconded, board motioned and minutes were approved.

III. Public Comment Period

Bohm asked if anyone from the public would like to speak. No public comment, item closed.

IV.K State Report

Moore started off by introducing Scott Schulte(?) a colleague of hers that helped work on the report with her. She started off by saying that she was going to go over tasks one and two briefly and then would move on to tasks three and four that were basically the nuts and bolts of the program. She said that as she stated before and in discussions her conclusion was that it would not be practical from the regulatory stand point to expand the already existing programs. These programs are already included in the city's stormwater permit documents. She went on to say that this kept them on track to look at other off site opportunities. They looked at urban vs rural and found that there were significant cost benefits with two to three orders of magnitude. Due to the cost benefits in the rural landscape they recommend working with WRAPS or a similar program. Tables are on 26-29 of the report. **See Moore's report.**

- Stream bank - \$3,485,199 at a 50 year program cost
- Cost per acre of development - \$116

Pajor asked if this was a one-time payment and Moore replied yes. The one-time payment is covering the life cycle of stream bank stabilization to offset it. The same thing can happen with a non-permanent BMP the outcome came out very similar. Moore said that the reason it came out very similar to the stream bank, is because it is non-permanent and they built in some assumptions. No till is a lot less. Typically the landowner is locked into a five year contract. The landowner typically chooses to stay no till and uses the money and buys the equipment to do a no till operation. To stay conservative, the report would say that maybe they will have to have enough money to replace 50% of the acres with other no till, that is why the off-site recurring costs are so high for no till. The report tried to make a non-permeant BMP into a permeant type of frame work for a program like this to try and insure that you have enough money to replace acres of no till if it is wanted.

- No Till - \$3,614,592
- Cost per acre of development - \$120

Moore said that given that the program costs are similar between stream bank and no till that it gives flexibility, that either could be done. Pajor said that while administrating the program there is a five year contract that is covered but he asked if there was an annual check for the remaining 45 years that the producer who is no longer under contract is still in the 50% that stays no till. Graber said no but they could. He said that typically they get to year 4-5 the only reason that they come out of no till is by landowner change. Graber said that if they wanted to build something into that to make sure that it stays that way they could. He went on to say that it is good to calculate this way that way they have to replace some but 70-80% will stay no till. Pajor said to clarify, is there 50 years of experience of operators doing no till? Graber said no. Pajor said that it would be nice to add for some sort of an annual visit with the producer or simple certification. Graber said that it was only about 20 years ago that the no till picked up any interest, so there is about 20 years' experience. Oborny asked if the trend is towards no till and Graber said yes. Basore added that past experiences say that most land transfers are within a family and usually farmers tend to do the same until they are shown something better. Pajor said that that is very encouraging but he still thinks there needs to be an adder to be able to have a paper trail. Graber said that he knows that no till is not the only answer so there are additional things that can be done and the reoccurring visits as they move through the time period would be to encourage those things as well, like intensive crop rotation so that there are crops on that ground as much time as possible to keep residue. Oborny said that there needs to be a tracking system on the acreage and always crediting and deduction back and forth. Moore said that it wouldn't matter if you were doing acres of no till or no till as long as you are coming out that your offsite sediment credit supply is greater than your onsite sediment impact. Moore asked if there were questions and Bohm asked if the ten year bank floats along over time or if it diminishes over time and Moore said that it depends. Moore went on to say that later in the discussion is seeing how to start the bank. She said

that you can keep it ahead and the spreadsheets are keeping the ten year float in front. Moore went on with examples in the tables in the report. **See Moore's report.** Moore said that the other important considering is to make sure that there is enough participation to fund the off-site BMP at the appropriate scale. If you only have 40 acres participating in a year, no one will be able to fund a 20 foot stream bank stabilization project. Table 4, page 9 has different practices. Pajor asked what the carrying time between making the expenditure and having cash flow coming in to go against the expenditure. Moore said that the cash flow would come in the same year that it would be implemented. The cash flow would immediately be disbursed to WRAPS for them to use as incentive payments. Pajor went on to ask if the program doesn't build ten years of BMPs, you build them as you need them? Moore said that the ten year program provided enough funding in year one to build ten years. From then on you take payments as they come and rebuilding your bank until you can complete the next large project. Bohm said that in the case of WRAPS, they can hold it for two years and then it gets thrown in with another WRAPS project and it wouldn't be a Wichita money alone, it would be a WRAPS project partially funded by Wichita. She went on to say that all of the costs help to get into more of the mechanics. The key one based on the costs would be how much a sediment credit cost, how much does it cost to participate in the program. There are other rules that need to be established in terms of off-site, who is eligible, any new or redevelopment project, what are the minimum on site requirements. Select the sediment credit ratio, the assumption is 2/1 but that is an item up for discussion. Allowable off-site BMPs, is it just stream banks do you allow some of the non-permanent BMPs a mixture of both and then the administrative framework, who is responsible for doing what. Moore said that she is going to start out with setting the credit payment rate. The recommendation would be to keep doing it the way that it has been done. Assuming a level of participation, assuming a typical BMP and using that to develop the payment rate. Looking at the table's people can understand how the rates were established and not feel like they were being cheated to encourage participation. Ideally the payment rate would be such that it provides financial incentives. There have been other programs that have not been participated in very well because they have been expensive and the goal is to be economically and environmentally efficient. The eligibility aspects are summarized on table eight on page 15 of the report, these will be up to the City to decide on how they want to proceed. The recommended program framework, as the report sees it has the City being responsible for collecting the funds and delivering those to WRAPS. WRAPS would be responsible for tracking the sediment credits and reporting back to the City and the City can report for their stormwater permitting requirements. There are already mechanisms in place so that the City's interactions with developers before development happens starts getting permits in line, use those formats in order to collect information for someone wanting to participate in the program. The report recommends going through WRAPS or some sort of similar program, WRAPS would be responsible for maintaining a sediment tracking database and each year WRAPS would deliver the tracking information and expenditures back to the City to make sure that everything is balanced and so the City can turn in this information for their permits.

Moore went on to the funding options in the report. Moore stated that the options listed are ones that are pretty common and accepted in other programs. There is a capital charge, this is a one-time fee to the developer at the time of development to offset the water quality. You can also target just the property owners and this would be in the way of a special assessment charge. Targeting all citizens you could do that through property or local sales tax or stormwater utility. You would need to show clearly the benefit to those targeted. Lenexa did something like that and they used a local sales tax but in return the citizens were getting large regional lakes and waking trails. Bohm mentioned to the group that this program should bring in \$72,000 a year that pays for everything. He said that if you participate in the program but you choose not to do anything for water quality but a detention pond you do not have to do any kind of annual or semiannual inspection reporting on the water quality, you would have

already taken care of that by participating in that program. Then the City would not have to track those properties. Discussion went on about regulatory issues that may be encountered. Allison went on and talked about Corp mitigation and wanted to know how that can be tied in. Bohm said that if this program gets kicked off and WRAPS is the vehicle that has the boots on the ground work, he didn't know why the Corps couldn't be introduced to WRAPS. Scott Schulte informed the board that in Kansas City and the Kansas City region are starting to play around with a regional mitigation plan to offset the regional transportation plan, they received a grant from the Federal Highway Administration and the EPA a few years ago which is similar to what is being looked at now. Discussion went on and then Bohm asked if on paper the program is written down and both the state and EPA are on board with it is there a grant to start the bank. Pajor said that with grant programs typically go looking for a grant but to take the approach that this is unsolicited application. Schulte then said that it is something to look into that with his contacts. Bohm said that the framework to this program could be easily used to any other community that could offer it. Bohm asked Moore what her thought is on who pays and what is the national thought. Moore said that in looking at other programs it is primarily put on the developer, she said that she doesn't think it needs to be on the developer but might be difficult to get the public support to say that the community should pay. Discussion went on and then Bohm asked if Tom or Gary wanted to say anything. Gary spoke and said that this is something that has been on his radar and totally supports it, he said that it is right in line with what he wants to accomplish. Bohm then said that the boards efforts need to be concentrated on getting a policy written and getting it to KDHE and funding can be a later discussion. Pajor asked what the turn around on the final report. Moore asked if there are specific things that the board wants to see from this discussion that they have highlighted or included. Bohm said that he would like to see the 2/1 ratio and that would be what they would recommend. Pajor said that the 2/1 would be a good start but he would like to hear the opinion of how much if that is a safety factor and how much is a true net environmental benefit. Hickle told Bohm that if anyone has a mark up to get those back to him by April 1st and he will get those to Moore. Bohm said that he would like to get the draft policy with the blank ratio back in front of the board and ask for KDHE & EPA to review and the board can talk about funding. Pajor said that would propose that the policy needs to acknowledge the need for funding mechanism. Bohm asked if a policy is submitted how long will it before it gets returned. Stiles said he would like to review it and then come and talk to the board and then the board and KDHE can talk to EPA together. Discussion ensued between board members and Bohm said that if a written policy is written and have him review it. Pajor said that it may have go to an internal review and it may go as far as the council but it will certainly have to have an internal review. Bohm said that in April the policy will need to be finished and delivered to Mr. King and the City of Wichita for review, when that is complete it can go to KDHE and run its route and the board can talk about funding. Bohm asked Moore if she had any more information and Moore said that was it and they would wrap the report up and get comments from the board. Bohm thanked Moore & Scott for the presentation and her efforts in the report.

V. Review of the Cowskin & Local WRAPS Concerns

Graber started off by saying that what he wanted to share with the board was the work that is being done in the Little Ark and how it could tie into this potential program. He said that he has not worked in the Cowskin but he thinks there is work there that they (WRAPS) could do. He said that he will talk about the Little Ark since there is a lot of work there and they have a foundation to hit the ground running, in the Cowskin it would be the establishing the new relationships and the jumping off point would not be quite as quick as the Little Ark. Graber went on to say that the nine element goals are being revamped right now, they are the first one in the state. **See Graber's handout.** Graber went on to show the board the tables. Graber gave examples of work that WRPAS has done and said that they have had a lot of other priorities. Graber went on to show the sediment work and the priority work, he

showed the tier 1 sediment HUC 12, they are Emma Creek, Running Turkey, and Lower Sand. Graber said that this may change a little as they go through the assessment process, they will be looking to see if they are in the right places, do they need to move a little. One of the things that they have done in their program is provide a little extra incentive in terms of dollars for highest priority areas, maybe 10% more dollars than they would if it were a tier 2 area. Tier 2 are Kissawa, Black Kettle, and Lower Blaze Fork for sediment. There are a lot of nutrient issues in Little Ark watershed if the sediment reduction goals are met, the phosphorus goals will be met as well. Reduction efficiencies associated with different practices the no till has about a 75% reduction efficiency, this is one that they try and get people switched to. Some other things are crop rotation or intensive crop rotation, keeping something on the field as much of the time as possible. They try and get them in no till and in an intensive crop rotation the reason for that is if they plant something like soy beans and take it off this fall it basically leaves no residue on the field all through the winter until next spring, lots of opportunity for erosion. If a cover crop is planted when the beans come off or wheat, now there is a growing crop through the winter additional protection to the soil. Graber said that they have enrolled almost 13,000 acres in 2013 and 2014 so 600 acres doesn't sound like much to get done even on a yearly basis. On the plan there is a 40 year goal to meet the sediment reduction and they are only three years in, he's not sure that 40 is long enough. He went on to say that there is a lot of work to be done in the watershed if someone tells him they are not interested than he can go to the next person and they will take the money, participation is not going to be an issue, especially if there is flexibility in what they can choose to do. The payout is over four years, 40% of the total payment is upfront then it is 20, 20, 20 and offering them incentives each year for four years. It helps them stay in contact and monitor or if there are problems or issues they are involved in the process. Switching to a no till gets worse to start with about year three it starts to get better and you start to see the benefits. Graber talked about the HUC 12's that were the highest contributors, now they are trying to find the fields within the HUC 12 that are the highest contributors, so cases it's because they are close to the stream, soil type, and those kinds of things. A rough average for the Little Ark is 1.8 or 1.9 tons of sediment erosion per acre per year, he knows there are fields that are 4/5 tons per acre, those are the ones that he wants to get into no till or a practice to reduce, he said it makes more sense. Graber went on to talk about ephemeral gullies, in the Little Ark he thinks that these types of gullies are a high contributor to sediment loading. The WRAPS received a grant about three to four years ago to study ephemeral gullies and it is about to wrap up. One thing they have discovered is our watersheds have more ephemeral gullies than any other watershed in the state. An ephemeral gully is channels that form in farmed or non-tilled fields. They can start from a wheel track and the water follows it some of them are from old intermittent streams and the water wants to go that direction. There are a number of factors that cause them to be there and how big they end up getting. Graber mentioned that once of the conclusions to his study is that these gullies can contribute to 90% of the sediment coming off of the fields. Lawrence is working on modeling to figure out where they may form and why they may be forming there. He recently went out into the fields and saw that there are a lot of gullies, the estimation of them are about 700. This helps to see what areas need work and finding out what BMPs WRAPS needs to be talking about. Another part of the study was nutrients, how much phosphorus is going out with these gullies or is it just sediment. A summarization of this study was that 50%/90% of phosphorus loss was coming from ephemeral gullies. It matches up with the previous study and there needs to be some efforts to address the ephemeral gullies within fields and keep them from forming. Graber said another study that they are just starting on is stream bank erosion, they have identified some parts on the Little Ark. Graber said that he has done a fair amount of stream bank on the Smokey and not a lot on the Little Ark. Graber said that this is all very useful information and it ties in very nicely with this project. He said that there is a fairly large need to do stream bank work. Graber went over photo examples in his presentation. He talked about the work that was done at the different sites. Graber said that there was a mention about the Corps being involved and he said that they have

been involved in the work that they are doing in the Lower Smokey and he said that they come to just about every WRAPS meeting that they have and help them. Bohm asked if there were any questions for Graber. No questions, Bohm thanked Graber.

VI. Adjournment

With no questions for Graber and an agenda set Bohm said that he would entertain a motion to adjourn, unknown member motioned and another unknown member seconded. Meeting ended at 10:00am.