

Technical Advisory Committee for the Raccoon Creek Partnership

Meeting Minutes – 3/21/2012

Action Items are Underlined

In Attendance: Jeff Calhoun (ODNR-DMRM), Mary Ann Borch (ODNR-DMRM), Sarah Landers (RCP), Amy Mackey (OU Voinovich School/RCP), Natalie Kruse (OU Voinovich School/RCP), Kaabe Shaw (ODNR-DMRM), Barb Flowers (ODNR-DMRM), Jen Bowman (OU Voinovich School), Ben McCament (ODNR-DMRM), Kimberly Brewster (RCP)

The meeting was called to order at 1:08pm. Meeting location: Voinovich School, The Ridges, Bldg 22

Agenda Item Number 1: Begin Meeting, Welcome, Introductions

Minutes from the December 15, 2011 meeting were approved.

Agenda Item Number 2: Watershed Coordinator Updates – Amy Mackey

Since the last TAC meeting the IBI and MAIS scores were calculated and a press release is in the works regarding recovery of biological communities in Raccoon Creek. Although the IBI scores and MAIS scores are in, we still do not have numbers and species of fish or QHEI scores back yet. During the spring Ohio Mineland Partnership Conference (OMP) information will be presented regarding the recovery occurring in Raccoon Creek. Dennis Mishne with Ohio EPA compiled some statistics looking at the percent changes in species since 1980. Ben McCament will forward this email to Amy Mackey. Ben McCament returned to the subject of the press release and informed the group that he received an email from Heidi, who manages press for ODNR. The ODNR Office of Communication, instead of writing their own press release, wants Heidi to pitch the story to the Columbus Dispatch to have them write an article. Jen Bowman provided some insight from the Watershed Coordinator meeting she attended the previous week. During the meeting there were discussions regarding what is working and not working in watershed management. This was in relation to ODNR or collaboration with other organizations on projects. The US EPA success stories website was brought up and there is only one success story from Ohio listed. Jen Bowman suggested sharing this press release information with Ohio EPA as well as US EPA since they assist with project funding.

Amy Mackey continued and announced that Molly Gurien, RCP board vice-chair and Water Trail chair, wrote a grant for purchasing trees to plant and she received the grant and now needs places to plant the trees and about like to plant some in the Raccoon Creek Watershed. Amy asked the group if there were any locations in the watershed where some trees could possibly be planted on reclamation sites. Jen Bowman suggested along the edge at Carbondale, but Ben McCament mentioned that he and Mitch Farley planted trees there previously and they did not survive. Amy will get a list of the types of trees and will follow-up with ODNR to get potential sites for trees. A few other topics are the Zaleski Wetland, which Sarah Landers will cover, 2012 biological monitoring sites were established, and the Raccoon Creek AmeriCorps and Summer Intern positions have been posted and links are on the RCP website at www.raccooncreek.org. Amy asked Kaabe Shaw if he could re-send OSM grant project information to her. Kaabe will re-send OSM information to Amy. The RCP longline fish electroshocker is dead and Amy

asked ODNR if RCP could borrow their electroshocker for the following week to do a fish shocking demo in Gallia County. ODNR approved this request.

Amy Mackey brought up the subject of US EPA 319 non-point source pollution grants. She wanted to know if she should be writing a 319 grant for any upcoming projects. Currently the Harble-Griffith project that is to be completed in late spring of 2012 is a 319 project, as well as the Pierce Run project. However, Raccoon Creek partners still need to provide post-construction data once the Pierce Run project is fixed and operational. Ben McCament asked when the Harble-Griffith 319 grant would be completed. Amy answered that we have 1.5 years left. One suggested project that was made by the group was to write a 319 grant for the Middleton Run project that is expected to begin construction in 2013. If we can't do a 319 for Middleton Run then we will look to future project for a 319 and Amy will start looking. We will probably wait to apply for another 319 until we finish up the ones that we are working on. Jen Bowman asked Amy what is owed to EPA from the Pierce Run project and Amy responded that we need to provide final results. Another suggestion was to consider Middleton Run for a 319 project, as well as Harble Griffith Phase II.

For other grant opportunities, Jen Bowman suggested lowhead dam removal. She had a student that was working on a feasibility project for lowhead dam removal but the student disappeared. Ben also suggested that lowering the dam could be a possibility too.

Ben McCament brought up that for the projects that were started in 2011, but won't be completed until 2012, that there would be only pre-data available for those projects for use in the NSP database. Jen is going to use the pre-data to show that there was project activity, but that the projects were not completed. Ben also asked about how the final cost for projects is represented on the NPS database. He wanted to know if she used the contracted cost or the final cost (actual) in the database. Jen asked if the final cost for project construction was on Quickbase and Ben confirmed. Jen then suggested that she could have a student go through Quickbase and compare the information on NPS reports for completed projects with the information on Quickbase regarding final vs estimated (awarded) project cost. Jen acknowledged that she does have access to Quickbase, and might be one of the only watershed persons that uses it.

Agenda Item Number 3: RC Water Quality Specialist and AmeriCorps Updates – Sarah Landers & Kim Brewster

RCP AmeriCorps Member, Kim Brewster, informed the group that this coming Saturday is the RCP Apple Grafting Workshop and passed around event flyers. Kim also went over other RCP upcoming events including:

Spring Day Camp (Amphibians): April 14th 10am- 1pm
RCP work day at Waterloo Aquatic Education Center: April 14th 1pm
Family Fun Day: April 21st 12pm-2pm
Raccoon Creek Water Trail Spring Float: April 29th (long float)
Ohio River Clean Sweep (two locations): June 16th
Summer Camp #1 (Ages 6 and up): June 18th – 22nd

Summer Camp #2 (Ages 10 and up): July 30th-August 1st

Raccoon Creek Water Quality Specialist, Sarah Landers, began by discussing the flooding below the SLB at Lincoln Pit. When Sarah went to sample there on February 28th the Lincoln Pit SLB discharge was underwater and could not be sampled due to a possible clog in a culvert under the road. Kaabe Shaw went to the site and could not find the location of a culvert outlet. Ben McCament suggested that there must be a culvert and that it might be clogged by beavers. Amy Mackey added that muskrats are digging through the dam, but are not a big contributor to flooding. Ben continued that there is no use in re-slugging the bed since the alkalinity downstream is good and let Kaabe know that the culvert must be close to the emergency spillway.

Next, Sarah discussed the Zaleski Wetland reconnaissance that took place on March 13th. The reconnaissance was initiated by a report that there was a fish kill in the wetland a few weeks prior. The Raccoon Creek crew took field readings at Webb-Mine Hollow, at the culvert in front of the Forest Headquarters, and in the wetland at various surrounding locations. Flows were higher than other flows recorded at Webb-Mine Hollow and the water is still net acidic. Amy thinks the fish kill is due to higher flows into the wetland due to large rain events in recent months. Ben asked how far up Mine Hollow was sampled. It was sampled not too far up and was sampled downstream of the confluence of Webb Hollow and Mine Hollow. The group concluded that it must be an AMD issue in the wetland. ODNR will contact Jared Able (Vinton County Wildlife Officer) to request the report on the fish kill. Ben mentioned that Mitch Farley knows AMD sources really well in the area and Ben also wondered if Lake Hope has had pH problems too. Amy said this type of incident has not happened in a long time because the fish had been in the wetland for a long time. It was determined that the Raccoon Creek Sampling Crew will go out again during low flow and collect field data as well as check for historical data on the pH of Lake Hope.

Before going on to discuss the Flint Run maintenance, Jen Bowman brought up that notes should be made in the NPS database in the comments section about maintenance timeframes and when post maintenance sampling resumes. This way we can keep track of maintenance projects for Jen to include in the NPS report. Sarah asked if project monitoring should continue to be quarterly each year after maintenance on Flint Run and Lake Milton SLB's and Ben felt that quarterly monitoring may be adequate. The AMD sources that these beds are treating should also be monitored quarterly. Sarah began to collect data to analyze the slag bed treatment at Flint Run, just as Ben had done for Lake Milton. We are going to try to do this analysis at each slag bed in Raccoon Creek to determine what we can expect out of the new slag bed (because this would be good to know for future maintenance projects). The Raccoon Creek crew went out to Flint Run and tried to titrate for acidity at the AMD source upstream of the SLB discharge. But they were unable to get field acidity because of all the iron that was precipitating out of the water while titrating and the color change was unobservable. A question was asked as to whether the sample could be filtered first, but Natalie Kruse informed the group that this may skew results and remove things that are still reacting. Natalie recommended using a pH meter like a Hanna meter & titrate to a pH endpoint. Natalie has a probe that will help (it's at the ISEE lab). Also deionized water should be used.

Now, on to Lake Milton. Kaabe asks if we should change the valve at Lake Milton to make up for less treatment out of Flint Run. Ben replied that overall these projects are improving the input of AMD at the mouth of Flint Run into Little Raccoon Creek.

Back to the SLB analysis, we continue with East Branch Phase I where steel slag was just replaced in the beds and maintenance complete. To get data downstream of the SLB's the sites: 190 and 210 would be the best data we are going to get and the easiest. 190 captures all except site I, 201 captures site I, and 160 captures site 8. Maybe for some SLB's we can figure out if they are working to the standards set by other beds. Bigger sites like Kern Hollow (East Branch Phase II) may be easier to look at. Ben McCament reminds the group that the chemistry and biology has improved because of these sites and they are working in the headwaters of Raccoon Creek.

Agenda Item Number 4: 2012 Monitoring Plan – DRAFT, questions – Sarah Landers and all

Sarah completed a draft of the 2012 Raccoon Creek Watershed water quality monitoring plan and emailed it to ODNR for comment. Comments were received from Mary Ann Borch. It was decided that rather than going over the monitoring plan at this TAC meeting that a meeting to exclusively discuss the monitoring plan will be scheduled with ODNR. In the meantime, Kaabe will identify sites in Little Raccoon Creek watershed to be sampled including the rottweiler site.

Agenda Item Number 5: Alkalinity Loads vs Acid Loads at slag beds: treatment ratios (not complete) – Amy Mackey, Sarah Landers

Already discussed during Water Quality Specialist update.

Agenda Item Number 6: Vinton County Airport Mitigation Updates – Amy Mackey, Ben McCament

Raccoon Creek Watershed Coordinator, Amy Mackey, read an email from Joe Cook to the group regarding a potential Vinton County Airport Mitigation project. The airport placed a culvert in a stream without obtaining the proper permits and must do a mitigation project. It has been proposed that the mitigation project could be an AMD treatment project. ODNR is interested in assisting with this project and a site visit needs to be scheduled with the Vinton County Engineer and nearby tributaries need to be titrated to determine acidity. The county may have a new engineer consultant take over the site and it is currently unclear who will be handling the engineering work for the airport project. Amy will keep the group updated on new developments. Ben McCament talked to Rose McLean with OEPA about mitigation project banking for southeast Ohio. Sometimes these projects take years to set-up. Yellow Creek has gotten mitigation projects this way (a gob pile reclaim). Ben would like to take Rose to see these potential AMD treatment sites and find out if money can be contributed to another site like this for AMD.

Agenda Item Number 7: AML Enhancement Updates – Ben McCament, Kaabe Shaw, ODNR

Kaabe Shaw started out the conversation by discussing the upcoming OSM grants for Lake Morrow (formerly Lake Latrobe) and the Flint Run Wetland. These projects will be divided into 2 separate OSM grants rather than in a single grant.

Now onto the AML enhancement project at Mulga Run. The Jackson Regulatory staff proposed a possible re-mining reclamation project to be done at the Jaymar SLB tributary. There was a study done last winter and the acid loads coming off the old mines are high. The area could be re-mined by Waterloo Coal Company and eliminate acid loads from the tributary. The underground mine complexes have coal and limestone to be recovered, but the mining company doesn't think they can recover the limestone through mining. This project is only possible if there is recoverable coal. They would like to drill 10 sites under AML Enhancement, but they may not need to do that many. They will probably prioritize 4 or 5 sites to drill and do more if they find coal. They will also look for coal at the edges of the project and will be estimating how much coal is recoverable. This project doesn't have to be bid and is a direct negotiation with Waterloo Coal Company. Their stone plant sits on top of one of their mine complexes and they now own all of the land on both sides. The limestone is above the coal and it can't be blasted for recovery because it drops down. The question was asked that can't the limestone just be blasted down into the mine to help neutralize the water in the mine. The group concluded that it could be a good experiment since it is unique that there is limestone directly over the coal. This could be a research project to figure out what would happen if this course of action was taken. Doing re-mining at the Oreton Seep was brought up, but it has already been re-mined and reclaimed over 50%. The next step in this potential Mulga Run/Jaymar re-mining/reclamation project is to get a drill crew to drill and then find out if it is feasible.

Agenda Item Number 8: Current and Upcoming AMD Project Updates – ODNR and all

Pierce Run: Mike McAvoy, ODNR Engineer, has the design for the slurry wall into the embankment. It is at \$400,000 as the high price. ODNR Division of Wildlife owns the property and permission is being obtained and there shouldn't be any issues. This project will be bid for this year, but if the bids are too high then another form of treatment in another location may be considered. Jen Bowman asked what impact Pierce Run is having on Raccoon Creek. Lately Pierce Run is showing less impact and an analysis should be done on the mouth of Pierce Run if another form of treatment is considered.

Harble-Griffith: The contractor will have 30 days to complete the project once they start. Construction on Orland will resume when it is not as wet and will take 2 weeks. We don't want them to get started and then have to stop due to rain.

Lake Morrow (formerly Lake Latrobe): SHIPO and permit are being worked on.

Flint Run: The bat trees are done in the Flint Run wetland.

Future projects include:

Middleton Run (Kisor Rd)
Daniels Run
Griffith Road (Harble-Griffith Phase II)
Buckeye Furnace SAPS

A discussion began regarding looking into a 3 year plan for Raccoon Creek and collecting data at additional sites for future projects. Amy started an analysis of Brushy creek and during fish sampling in 2011 there were fish at Creek Road, suggesting minimal impact from Brushy Creek. D permit mines have been completed around and above Brushy Creek and some of those were curbing acidity and some of those also go into Elk Fork.

Kaabe is developing 2014 project schedule. Ben is working on an operations and maintenance plan and that is going to have to be considered when determining project costs. The AMDAT for Little Raccoon Creek will play into this. The AMDAT will address what we have already done and where we still need information. One thing is that we missed sampling a big loader when we did the Mass Balance for Middleton Run last year and we should take care of this soon. Ben also suggested that post construction for all projects we should have an after action review (debrief) for AMD projects. Then we can talk about what went wrong and what to do in the future. Also we can address project maintenance and go over the project plans together and get everyone familiar with the layout of the project. We can also identify things that may be going wrong consistently with projects to correct in future projects. ODNR already does this in office and shares at TAC meetings. We should better discuss projects from beginning on through and any problems as it is built. ODNR's internal communication is good. Ben will send Jen Bowman the maintenance form for NPS.

East Branch Phase III: the contractor is mobilizing and the sediment on top of the beds will be scraped off soon.

East Branch Phase II (Forest): Input is clogged and Barb Flowers is double-checking it. This project is not functioning as no water is able to enter the system.

Agenda Item Number 9: Corporate Sponsorship Letters – Jen Bowman

Jen Bowman is working with MPA student, Matt Richards, as he drafts a corporate sponsorship letter for RCP. Matt drafted three different types of letters. This is something that RCP and Jen with the Ohio University Voinovich School Environmental Programs has been interested in especially to supplement funding from AEP which has helped fund past projects like the Hewett Fork project. The letters are for a diverse group of potential sponsors and what we are asking for is for funding for scientific equipment and research. Maybe someday we could get assistance for reclamation project funding. The question was posed to the group at the TAC meeting: who should we ask for corporate sponsorship? Some suggestions included: Cabelas, Bob Evans, Construction companies, Coal companies (Rhino, Sands Hills), Aggregate/stone companies (Rhino & Waterloo). Design companies, Rental companies, Steel Slag

suppliers (Stein), Lime supplies (for doser). Jen has a grant currently out to AEP for 1 million dollars over 4 years with multiple components including funding for the Watershed Coordinator and Water Quality Specialist positions. As well as funding for more students to build a watershed program and support an environmental education program. There has been a relationship with AEP over the last 10 years and they like to know what other corporations are supporting the Watershed group.

Agenda Item Number 10: AEP Project Updates – Natalie Kruse & Jen Bowman

Addressed in the above section.

Agenda Item Number 11: New Business/Announcements - All

Amy Mackey informed the group that RCP has written a letter of support for invasive species management occurring at the Raccoon Creek County Park in Gallia County (O. O. McIntyre Park). Another letter was written to support the mapping of purple loosestrife in the watershed.

Ben McCament brought up that the AML National Association is asking for articles for their newsletter (small articles) – he may want to submit something.

Ben also presented information on potential legislation to deter funds from reclaimed strip mines into industrial minerals (IM) regulatory program. The IM program wants to take \$500,000 from the AML account. We get funds from this account and don't have to do through OSM for projects. The money that comes out of this fund goes to: Watershed Coordinators, Water Quality Specialist, AmeriCorps, Ohio University NPS website, research, etc. If there is a change then we would have to go through federal rather than state for these funds. The Chief could bring this legislation and there can be no comments made until the legislation is made. The IM industry pays into the account, but their money goes into coal related projects. Diverted money would go to general program costs. Ben will let the group know if something is introduced. Another issue to consider is the potential for future difficulty getting limestone for projects because of a potential hydraulic fracturing boom locally.

Agenda Item Number 12: Wrap-up Review Action items - All

End Meeting – Next meeting: Wednesday, June 27th 9:00 am, The Ridges, Building 22 – Room 214