

**Marsh and Rock Creek Watersheds Critical Area Resource Plan**  
**Critical Area Advisory Committee **DRAFT** Meeting Minutes**

1:00pm-3:00pm, July 13, 2011: Ag Center, 670 Old Harrisburg Rd, Gettysburg, PA 17325

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**Attendees:**

Charlie Bennett, Dave Jostenski, Mike Hill, Lori Mohr, Skip Strayer, Bob Reichart, Jay Braund, Joe McNally, Pat Bowling, Paul Kellett, Dean Shultz, Eric Flynn, Pat Naugle, Adam McClain, B. Isenberger, Barb Underwood, Hugh Lewis, Coleen Reamer, John Hess, Dick Waybright, Nick Colonna, John Brummer, Bicky Redman, Tom McCarty, Andy Zemba, Nathan Merkel, Charles Wilson, Sara Koenig, Fran Koch, Scott Dellett, Joe Hoffman, John Hines, Jim Palmer, Heidi Moltz

**Handouts:**

Agenda; draft minutes from a meeting of agricultural representatives; draft minutes from April advisory committee meeting

**Welcome and introductions:**

Charlie Bennett (committee chair) welcomed the group and requested introductions from those who have not previously participated in the CAAC meetings. He also asked if there were any citizens who would like to make a comment. No citizen comments were made.

**Approval of meeting minutes:**

The meeting minutes were approved; however, the group requested that an electronic copy of the meeting minutes be distributed. Heidi Moltz will send an email with the April meeting minutes to the committee.

**Recognition of John Hines:**

Andy Zemba presented a token of recognition to John Hines for his time as an ICPRB commissioner. Andy passed along some thoughts on John from the commissioners and noted his vision, leadership, and commitment among other contributions. John was presented with a plaque containing a photo of Sach's Bridge and a written resolution from the commissioners. He then briefly addressed the group.

**Preliminary results of the water use analysis:**

Heidi Moltz introduced the preliminary technical write-up of the water use analysis. Several copies were available to review during the meeting; however, each committee member will receive one via email the day after the meeting. Adam McClain volunteered to have a hard copy on hand at the Ag Center for review.

Heidi noted that the analysis of current water uses is preliminary and encouraged discussion of missing or potentially erroneous information. The primary objective of the water use analysis is to identify and quantify, where possible, the current withdrawal and non-withdrawal uses of water in the Marsh and Rock creek watersheds. The spatial and temporal resolution of the analysis was as fine as possible for comparison with water availability in subsequent analyses.

What follows is documentation of the discussions regarding the results of the current water use analysis. The results themselves are not documented here. For a copy of the technical report or to submit comments, please

contact ICPRB via email (marshrockpa@gmail.com), phone (301.274.8116), or mail (51 Monroe St. PE-08, Rockville, MD 20878).

### *Estimated irrigation*

Pat Bowling asked what the ratio of irrigated to non-irrigated agriculture is in the watersheds. Members of the group estimated that about 1% of agricultural land is irrigated.

Pat Naugle noted that no-till irrigation retains more moisture in the soil and is commonly practiced in Adams County.

The estimated future trend in agricultural water use was discussed. There was some agreement that the amount of land under agricultural production will decrease in the future, as residential/sub-urban areas increase (Paul Kellett and others). Bicky Redman suggested looking at the preservation data. Charlie Bennett agreed to bring the agricultural water use trends before the Fruit Growers Association and the Farm Bureau to get their opinion on anticipated future trends in agricultural water use. It was also noted that as food costs increase, irrigation will likely increase because it becomes economically worthwhile for the farmer to irrigate (John Hess).

Dave Jostenski asked about the users who have not yet registered. Is there a way to increase registrations to get a better snapshot of actual water use as opposed to utilizing estimated water uses? Charlie agreed to develop a registration request that could be distributed by the Chamber of Commerce and through the WRAC newsletter. John Hess pointed out that some farmers don't want to register because they are worried about potential fees associated with water use or that water use for agriculture will be restricted in some way in the future. Pat B. said that only users with >10,000 for a 30 day average are required to register. Charlie B. noted that even if people do not want to install meters, maybe they could report a snapshot of their water use for the CARP process to ensure that the water use analysis is accurate.

Preliminary estimates of irrigated agriculture, presented by Jim Palmer, show a decrease of water use in 2007. It was suggested that a possible explanation of this was the Plum Pox (Bob Reichart). Decreases in irrigation and other uses can also be evaluated to determine if water restrictions were being implemented at that time (Joe Hoffman).

Joe McNally pointed out the seasonality of agricultural water use and asked if that was being taken into consideration. Jim P. said that the average annual values in the report were the amount of water used during a year divided by the number of days that irrigation is actually occurring. He also noted that the seasonal variation of water use by agriculture was calculated and is available in the report.

Pat N. mentioned the importance of knowing the water source of the agricultural water uses and the importance of understanding the impact(s) on groundwater.

Joe M. noted that there are multiple uses of water often at a particular site – this water should not be double counted in the analysis. Jim P. said that the values being utilized in the assessment are the amount of water withdrawn, not the amount used for each individual purpose. Heidi M. also noted that the agricultural representatives highlighted their conservation measures during the meeting in May, including using it for multiple purposes on site (cooling, cleaning, power generation, etc.). This is included in the water conservation program assessment.

Dick Waybright said the primary objective of the agricultural assessment should be the long term sustainability of agriculture.

### *Estimated livestock*

John Hess pointed out that agricultural production per animal unit is increasing. The average dairy cow can now produce 20,000 lbs of milk, compared to the previous 15,000 lbs. Water use per cow increases as this milk production efficiency increases. To feed the increasing number of people, there has to be an increase in production per acre as well. Additionally, he pointed out that water is being used in new ways for agriculture, such as cooling water. Coleen Reamer noted the increasing productivity of agriculture and the decrease in the number of animals overall. She is not sure about the projected numbers of increasing livestock water use as presented in the analysis. Also it was noted and generally agreed that some of the livestock numbers seem high, particularly horses – and that these numbers should be decreasing over time. Charlie B. said he would show these numbers to the agricultural groups when he attends the meetings.

Pat N. agreed with others that an increase in agricultural water use is likely not supported; however, it is good to be conservative in the water use estimates for planning purposes to ensure that the water needed will be available.

A suggestion was made that increasing the number of ponds would help agriculture. Bicky Redman pointed out that the cost of installing ponds is often prohibitive. The average cost is about \$80,000 and the availability of funding is changing as this is not a priority for organizations like the NRCS. John Hess said that if it becomes harder to take action we're wasting our time. If studies indicate that a management option will work, we have to be able to use them. The management options can't be suppressed from a regulatory/policy perspective. There was general agreement that increasing the number of ponds should be included in the recommendations.

### *Public water suppliers and self supplied domestic*

Pat Bowling asked if non-transient systems are included in the registrations. Pat will help to identify such systems that may have not been included.

The question arose as to why the use by public water suppliers was shown to decrease in the last couple of years. Heidi and Coleen pointed out the potential economic drivers. Others suggested the conservation programs employed by GMA and possibly other public water suppliers. Bicky suggested that improved metering may account for the observed decrease by public water suppliers. That is, the more recently reported values may be more accurate.

Regarding the per capita water use of these systems, it was asked whether the per capita use is based on population or number of taps. Heidi responded that the source of the population served estimates were the EPA SDWIS database and she can check to confirm but expects it is the number of people, not the number of taps. It was noted that for public water supply systems that have considerable industry and commercial components, using the population values for per capita may result in a higher calculated per capita water use in these systems.

The average per capita water use of the 13 public water supply systems is 72 gallons per person per day. This is lower, but comparable to the commonly used 80. Because the systems vary widely in their per capita water use, the standard value of 80 was used to estimate self supplied domestic water use. Heidi asked if everyone is comfortable with this decision. Charlie B. says it might be high. Dave Jostenski pointed out that both numbers are within an appropriate range. There was general agreement that it was OK to move forward with the per capita estimate of 80 gallons per person per day.

### *Consumptive uses*

Pending updated discharge data, average consumptive use estimates were applied by water use type to arrive at an estimate of consumptive uses in these systems. Joe McNally and others brought up the issue of consumptive use by septic systems. Heidi noted a USGS study in Georgia that estimated the consumptive loss at ~17%. There was general agreement that the number should be lower in this area, ~10%.

Pat N. asked if surface water moving downstream out of the watersheds is considered a consumptive loss since it is no longer available for use in the watersheds just as if it were bottled and shipped out.

### *Non-withdrawal uses*

Bicky suggested that apple orchards could be added to the list of tourist activities depending on water. The group also suggested inclusion of the winery tours. Sara K. noted that it is not only the Gettysburg National Military Park, but also (and maybe primarily – especially for international visitors) the Eisenhower National Historic site that attracts visitors to the area.

Heidi made a plea for the group to submit information about conservation programs underway in the watersheds and noted that this section needs to be enhanced to ensure that the water balances are accurate as we move forward. If water is being conserved, that should be taken into account. Organizations are encouraged to submit a description of their conservation programs to be included. For example, Knouse Foods has a water conservation program and will be submitting information (Charlie B.). Adam McClain noted the stormwater BMPs that have been installed throughout the watersheds.

Heidi said that an email was distributed to the CAAC education representatives to solicit input on the ways water resources are used for educational purposes. She received great responses from the group. If anyone knows of additional ways that they are used for education, please submit that information.

### **Additional Discussion:**

Open loop geothermal wells were discussed, including the availability of ordinances in some municipalities. It was asked if these are or could be included in the consumptive use analysis. Sources of the data included well drillers and the state survey were suggested. It was also noted that some municipalities are not allowed to have artesian, flowing wells, according to their ordinances.

Sara K. noted the importance of considering instream flow requirements for the aquatic species documented in the watersheds.

### **Closing:**

Charlie Bennett thanked everyone for attending and closed the meeting.

### **Announcements:**

- The next meeting of the Critical Area Advisory Committee will be held on Wednesday, October 12<sup>th</sup> at the Ag Center in Gettysburg.
- If you have not received a copy of the preliminary technical write-up of current water uses in the watersheds and would like one, please email [marshrockpa@gmail.com](mailto:marshrockpa@gmail.com) or call 301.274.8116.
- Participate in the project blog at <http://www.marshrockwaterplan.blogspot.com/>.