

WATER BUDGET ADVISORY COMMITTEE

Draft Minutes November 23, 2004

The sixth meeting of the Water Budget Advisory Committee (WBAC) was held at the Ephrata Public Library, Ephrata, Pa. The purpose of this meeting was to provide the membership the project status and activities for the next six months. The projected completion date is June 30, 2005.

Agenda Item 1. Approval of June 15, 2004 Minutes

- With no additions and/or corrections the minutes from the June 15, 2004, WBAC meeting were approved.

Agenda Item 2. Status of June 15, 2004 Action Items

- Action Item 1. Kelly Gutshall, Landstudies has provided a one-page summary of the June 15 work session. A copy is in the handouts and also is on the Water Budget web site.
- Action Item 2. The work sheets and questions from the June 15 work session were mailed to municipalities not represented at the work session.
- Action Item 3. The October meeting was rescheduled for today.

Agenda Item 3. Field Survey Update

The past six months of the project have been focused on data collection activities. SRBC completed the first field survey in May and just completed the second survey the end of October:

- The field surveys included the measurement of groundwater levels and streamflow measurements throughout the study area. For some samples, we also were able to collect nitrate, conductivity, pH, and temperature information.
- Results obtained from the May survey have been mailed to those that participated in the survey. The October results will be mailed in January.
- A field map showing the sampling network was presented to the committee. The map included the locations of wells measured during the May and October Survey. Locations of streamflow measurements also were shown on the field map.
- Streamflow measurements were made at 61 stations. In May, we obtained 91 groundwater level measurements. This October we revisited the wells and also picked up 19 more measured wells for a total of 110.
- The streamflow measurements made this spring have shown stream segments that we can classify within three categories: (1) segments where surface flow has

diminished slightly when moving downstream or no flow was observed, although topographic maps indicate a stream; (2) streams that maintained a constant flow rate; and (3) stream segments with significant increase in flow rate. We need to calculate the flow rates from the measurements made this October and compare these results to the May flow results. Field staff did observe segments with declining flows which was surprising considering the wet summer we had this year.

- Along with the streamflow data, the groundwater measurements have allowed us to construct a groundwater contour map of the area. This is helping to confirm some thoughts on recharge areas, capture zones for water supply, and what we are observing with the surface water flow system. Groundwater level contour maps will be included in the final report.
- Where we could get water quality samples from groundwater, the average nitrate value during the May 2004 sampling effort was 9.7 mg/l with a low of 0.3 mg/l and a high of 33.5 mg/l. Conductivity values ranged from 113 to 1308 with an average around 650. For streams, the nitrate averaged 7.0 mg/l with a range from 0.7 to 21 mg/l.

Agenda Item 4. Resource Management Recommendations Update LandStudies, Inc.

- As stated earlier, Kelly has summarized the June 15 work session responses and the ordinance reviews. Both Kelly and Bob Edwards will be meeting Dec. 8 to discuss pulling together this information with results from the field surveys and mapping effort. They also will finalize remaining tasks and begin working on more detailed recommendations. The one page summary is posted at <http://www.srbc.net/docs/WBACMgmtRecSummary20040615.pdf>
- One of the discussion topics was greater cooperation among municipalities, particularly in the area of more consistent and standard ordinances. This is especially important in the rural locales where land use and development coincide with important water resource areas.
- An example on how we pull this information together is to review the character of the landscape and note the important carbonate valley and upland shale areas around the valley. The upland areas are promising from a residential development standpoint because of the vistas or views provided. From a water resources standpoint, development on the shale areas maybe preferred over the development on the carbonate aquifer, leaving the carbonates open to recharge and well head protection. The preliminary findings from the field survey indicate that streams flowing from the shale upland areas down onto the carbonate valley area are important features. These streams tend to lose water to the carbonate areas. Therefore, both the quantity and quality of this water source is important to water supply. Adjoining municipalities may want to consider consistent stormwater ordinances on how stormwater is managed and redirected down through the upland stream reaches. These particular upland stream reaches may be ideal locations for riparian wetlands that would act as natural filters and mitigaters of flood flows.

- As shown in the example above, we hope to provide a series of recommendations targeted to these important resource areas.

Agenda Item 5. Remaining Data Needs and Next Steps

- The next six months will focus on data analysis and drafting the report. The remaining data needs include Wastewater Treatment Flows, Precipitation, Quarry Discharge, and Spring Locations.
- As sections of the report are completed, Bob Edwards will be contacting the Water Budget Advisory Committee and asking members to review preliminary findings and recommendations.
- Bob Edwards will need to discuss with the WBAC the appropriate delivery of products/reports. At a past meeting, members had a concern about presenting maps to the public with well location information, considering homeland security issues. However, municipal representatives wanted to see this information. In order to fill these requests, we may need to complete two versions of the final report. As sections are reviewed, other concerns may be raised and we will need to take these items under consideration as well.
- In early June 2005, Bob Edwards will set a date for the final forum to present findings and recommendations. This may be similar to the first public forum with one session in the morning and one in the evening. The final agenda still needs to be completed.

Agenda Item 6. Adjournment

The next meeting of the WBAC may be the public forum in June 2005, unless there are several issues that need to be discussed before that time period. The meeting adjourned at 10:50 am.