

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

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

Attendees:

Charlie Bennett, Dave Jostenski, Mike Hill, Skip Strayer, Nate Merkel, Louise Mairs, Bob Reichart, George Fisanich, Sarah Weigle, Barry Towers, Jay Braund, Joe McNally, Pat Bowling, John Brummer, Dan Trimmer, Paul Kellett, Dean Shultz, Hugh Lewis, Eric Flynn, Alan Ferranto, Fran Koch, Pat Naugle, Conrad Richter, Scott Dellett, Rusty Ryan, Larry Martick, Vy Trinh, Adam McClain, Bob Gordon, Barbara Underwood, Jim Palmer, Heidi Moltz

Handouts:

Minutes from the kick-off advisory committee meeting
Meeting agenda

Welcome and introductions:

Charlie Bennett, committee chair, welcomed the group and provided a brief background on the formation of the advisory committee through Act 220. He also discussed the process through which the Marsh and Rock creek watersheds were nominated as a Critical Water Planning Area (CWPA). Charlie mentioned that the Interstate Commission on the Potomac River Basin (ICPRB) was contracted by the Department of Environmental Protection (DEP) to conduct the technical work on the Critical Area Resource Plan (CARP).

Approval of meeting minutes:

Charlie asked if there were any concerns regarding the minutes from the advisory committee kick-off meeting, held on January 12, 2011. No concerns were voiced. Paul Kellett made a motion to accept the minutes. Barbara Underwood seconded the motion. The minutes were approved.

Citizen comments:

N/A

ICPRB update:

Heidi Moltz (ICPRB) reminded everyone that the project blog is up and running at www.marshrockwaterplan.blogspot.com. The intended purpose of the blog is for discussion and information sharing. Everyone is encouraged to participate by posting comments or questions and/or creating blog entries. Pat Naugle asked if anyone will make sure that any blog questions receive responses. Heidi said that ICPRB is moderating the blog and will make sure that responses are provided to posted questions. Because a main goal of the blog is to encourage communication between stakeholders, everyone is encouraged to post their perspectives on any given question. Dave Jostenski asked attendees to forward the blog address to anyone who might be interested and to link to it from other websites.

Heidi presented a diagram of the major ICPRB project tasks and walked through the steps that have already been accomplished (e.g. establishment of the committee, previous and ongoing public participation, establishment of a ground and surface water monitoring network) and the work that's ongoing. Currently, the

technical work is focused on assessing current water uses in the watersheds, including both withdrawal and non-withdrawal uses. Heidi provided a couple of examples of non-withdrawal uses in the watersheds such as trout fisheries, whitewater kayaking, and aquatic habitat. She asked if anyone knows of other non-withdrawal uses in the watersheds. Suggestions from the group included bird watching, the ability to spend time down by the rivers – not necessarily in the water but walking the banks etc., tourism (e.g. Sachs Bridge), and education (e.g. taking students to the rivers to learn).

Jim Palmer (ICPRB) discussed the methodology for obtaining the registered withdrawals from DEP as well as estimating non-registered uses based on land use type. To locally verify the methodology for estimating non-registered users, Jim requested a meeting with the agricultural members of the committee. Charlie Bennett said he would help schedule/coordinate that meeting. Vy Trinh said she has an email distribution list of agricultural representatives that could be used to advertise the meeting. It was also said that agriculture programs from the local school districts would be a good contact to include in the meetings. Joe McNally noted the availability of LIDAR mapping to assist in this process.

Jim provided an update on the status of the stream gage network. There are four staff gages currently installed, two on Marsh Creek and two on Rock Creek. Stage-discharge relationships are under development by the USGS for the gage locations. The staff gages will be used to develop water budgets and assess water availability in the watersheds. Jim said that volunteers are needed to read the staff gages on a regular basis.

Heidi wrapped up the ICPRB update by pointing out that the current focus of the technical analyses is on water uses. ICPRB plans to provide preliminary results of this analysis at the next advisory committee meeting in July. Looking forward to the next set of technical tasks, the meeting today is focused on water quality. Historic water quality data is currently being collected to identify data gaps and monitoring needs. Any feedback on the main water quality issues facing the watersheds is appreciated.

Water quality:

Dave Jostenski (DEP) gave a presentation on the role of water quality in the development of a CARP, including the language in Act 220. The CARP will consider how water quality affects the availability of water as well as the affects of water demands on water quality under both current and future conditions. The CARP will include an assessment of water quality issues that have a direct and substantial affect on water resource availability, impact source water for public water supplies, protects existing and designated uses, and impairments. The Integrated Water Quality Monitoring and Assessment Report contains information about the impaired stream reaches¹. The slides from Dave's presentation are available online².

Pat Bowling (DEP) gave a presentation on surface and groundwater hydrology and related water quality implications. Background hydrology concepts that were presented include unsaturated versus saturated aquifer zones, primary and secondary porosity, confined and unconfined aquifers, and a general geology of Adams County. These concepts were then tied to water quality implications through a description of how land uses impact water quality. Land uses that can impact water quality include (but are not limited to) landfills, residential, roads, industry, agriculture, mining, underground storage tanks, domestic wells, and hazardous and household waste. Franklin Township was provided as an example of needing to install sewage treatment due to the effect of failing septic systems on water quality. Pat described the major water quality issues in Marsh Creek and in Rock Creek.

¹ http://www.portal.state.pa.us/portal/server.pt/community/water_quality_standards/10556/integrated_water_quality_report_-_2010/682562

² <http://www.potomacriver.org/RoleofWaterQualityinDevelopmentofCARP.pdf>

Pat also made the point that water quality issues can arise from natural sources. Arsenic was given as an example. Naturally occurring arsenic can be found in the rocks surrounding diabase bedrock due to how diabase is formed. Under certain circumstances, the naturally occurring arsenic can contaminate water sources. In another example, one well in the watershed has had to go offline from naturally occurring radionuclides. Pat then discussed a 1996 EPA publication on the “Benefits and costs of prevention: Case studies of community wellhead protection”³, which noted that responding to contamination is 200 times more expensive than prevention. The slides from Pat’s presentation are available online⁴.

Adam McClain (ACCD) presented on the water quality issues found in Adams County groundwater wells. The Conservation District has been testing water samples from local groundwater wells for bacteria (total coliform and E. coli) and nitrates. A large percentage of the samples have tested positive for bacteria. To further assess these issues, people are counseled to remove the probable cause of the problems (such as installing a sanitary well cap), shock chlorinate the well, and test again. For those wells that are still positive for bacteria, individual treatment options are recommended, perhaps including chlorination or reverse osmosis. Local contamination issues include manure leaching into the groundwater, failing septic systems, muddy water coming out of the tap, and the lack of construction standards. The slides from Adam’s presentation are available online⁵.

A question was asked about what agency is responsible for checking the bottled water coming out of Gettysburg. Pat Bowling responded that the FDA and/or DEP have a role in the monitoring and enforcing water quality standards in bottled water. Dave Jostenski said that the DEP Regional Office performs this work on behalf of DEP.

Rusty Ryan (ACCD) presented on stormwater issues and the effects on water quality. Rusty articulated the need to view stormwater as a resource, not a nuisance. Regarding regulations, Chapter 102 requires that stormwater must be incorporated in all earth moving activities above a specified acreage with some exceptions such as agricultural tilling. The countywide stormwater management plan is expected to be complete this summer for submission to the commissioners. An ordinance is also being prepared. The stormwater permit process includes testing soils and determining if the applicant can meet the volume increase - which means maintaining the volume, rate, and water quality. If the development is not able to mitigate for these factors in their planning, there is a possible loophole through DEP in which development can move forward if water quality requirements are met.

Rusty also mentioned problems associated with stormwater management. Best Management Practices (BMPs) are required to mitigate the increase in stormwater from a development. A standard value is used to evaluate the effectiveness of BMPs. As part of the CARP process, sampling BMPs to determine if installed BMPs are performing as expected would be beneficial. Secondly, Rusty raised the question of whether the BMPs are being installed correctly. Staffing and funding is not available to inspect all BMPs. Further, monitoring and maintenance is often the responsibility of the homeowners association. ACCD conducts administrative, but not technical review. Establishment of a stormwater authority, similar to a water authority, has been discussed previously. ACCD is also working on other programs such as installation of riparian buffers. A challenge to stormwater management in the watersheds is poor infiltration of the soils in the area.

In line with the idea of treating stormwater as a resource, Heidi Moltz asked whether many stormwater management measures are currently being voluntarily implemented by homeowners. Rusty answered by saying that people want to do the right thing and have demonstrated that through voluntary participation in ACCD

³ This publication is available online at <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20001U4L.txt>.

⁴ <http://www.potomacriver.org/GPBowlingMarshRockWQIntro.pdf>

⁵ <http://www.potomacriver.org/PrivateSupplyWells.pdf>

rainbarrel and rain garden programs. An additional incentive for on-site stormwater management exists for buildings less than 5,000 square feet. These locations can be exempted from a permit if they are disconnected from the stormwater system such that the water flows over permeable land on their property.

A group discussion ensued about stormwater management practices being implemented in the watersheds. Examples given included the Gettysburg National Military Park museum's LEED certification; McDonalds on Rte 30's underground stormwater storage; and the Welfare Office in Gettysburg. A 2,000 square foot green roof has also been installed at Gettysburg College's Majestic Theater, among others in the watershed.

Larry Martick (ACCD) mentioned that stormwater management in PA is complicated because it is governed under several different levels of government such as state (ex. PA clean streams law), county, and local government. And that any level of government can change their rules, which upsets the pieces of the puzzle.

Discussion:

The floor was opened for discussion about water quality issues facing the watersheds.

Pat Naugle made the point that deeper groundwater wells have higher total dissolved solids which cause scaling issues and make the wells unusable for large scale water supply.

Rusty Ryan brought up the issue of geothermal well drilling and the concern of open loop geothermal systems. Pat Bowling said that DEP recommends closed loop systems over the open loop type. Pat also gave the example that in Centre County an ordinance was developed to manage ground source heat pumps. Bob Reichart said that making sure we have an adequate supply of water is the reason we're here and that open loop wells should not be allowed because it causes the water resources to be moved downstream. Paul Kellett agreed that open sources should not be allowed. There was a general, informal consensus by the group on this point. Adam McClain asked if a draft ordinance will be available for review and adoption by other locales. Bob Reichart said that PGWA was going to develop a model ordinance, but may not now. Charlie pointed out that the well drillers are also behind the adoption of an ordinance and a small group of well drillers could be convened to discuss this issue. Many in the group were in agreement that an ordinance should be included in the plan. Bob Gordon pointed out that the process of adopting an ordinance has been done in other locations already (ex. Hamiltonban).

Paul Kellett noted the importance of appropriate time interval considerations and the inclusion of wet and dry years as part of the plan's technical analysis. He also mentioned the need for looking at the introduction of resources into the watershed (inter-basin transfers).

Pat Naugle mentioned the impact of future development. As an example, he said that Cashtown put in a sewage treatment plant. Approximately 80% of the water used is from groundwater, then it's discharged to surface water where it moves downstream and is no longer a resource within the watersheds. He then posed the concept of water storage requirements on development (ex. proposed Mason Dixon development). The planning process should include an assessment of the business-as-usual scenario of pumping from groundwater and discharging to surface waters as well as mitigation scenarios which may include sewage systems/water supplies/surface storage.

Charlie Bennett mentioned that at the last ACCD meeting there was discussion of reverse engineered sewage treatment plants to encourage infiltration. But soils in the area are a limitation due to the low infiltration rates.

Dave Jostenski also mentioned the necessity to consider the effects of diminishing baseflow on effluent dominated streams.

Interbasin transfers were then discussed. Charlie Bennett said that interbasin transfers are a potential source of relief for GMA and, technically, can be considered. Pat Naugle noted a case where the inter-transfer is

occurring in the other direction – where the withdrawal occurs in the Potomac Basin and the discharge occurs in the Susquehanna Basin. Skip Strayer brought up the 537 plan from GMA.

Paul Kellett mentioned the need to calculate the maximum daily loads for nutrients, particularly in effluent driven streams, to inform the decision-making process.

Dean Shultz said that permits are required to establish treatment systems, but follow-up is minimal to ensure compliance. Are the treatment systems meeting the discharge criteria? He also emphasized the need to determine how much groundwater is available to facilitate decision-making and noted the possibility of developing surface water reservoirs. Rusty Ryan said that the Birch Run Reservoir has just been lost. Charlie Bennett mentioned that the Chamber of Commerce is re-investigating Birch Run as a reservoir option. Pat Bowling pointed out that the downside of using surface water supplies as public drinking water sources is that the water has to be filtered, which can be expensive.

Closing:

Charlie Bennett thanked everyone for attending and closed the meeting.

Announcements:

- The next meeting of the Critical Area Advisory Committee will be Wednesday, July 13th from 1-3pm at the Ag Center in Gettysburg.
- Upcoming Adams County Water Resources Advisory Committee meetings will be held on April 28th and July 26th from 1-3pm at the Ag Center in Gettysburg.
- There is a DEA drug take-back event on Saturday, April 30, 2011 at the Ag Center in Gettysburg (670 Old Harrisburg Rd).