DOVER TOWNSHIP BOARD OF SUPERVISORS MEETING Work Session Minutes July 26, 2010

The Dover Township Board of Supervisors held a work session on Monday, July 26, 2010, which began at 6:00 PM in the Meeting Room of the Dover Township Municipal Building. Dover Township Supervisors present were Chairman Curtis Kann, Madelyn Shermeyer, Michael Husson, Duane Hull, and Monica Love. Laurel Wilson, Township Manager; Charles Farley, Public Works Director; and Dawn Slegel, Recording Secretary were also present. Matthew Bixler and Andrew Baeshar from Spotts, Stevens, and McCoy; from the Pennsylvania Department of Environmental Protection; Chester Young and members of the Steering Committee were in attendance at this work session.

The purpose of the work session was to present to the public the source water protection plan for Dover Township.

Mr. Farley reported on the continuous growth of Dover Township, specifically how the water system has grown over the last twenty years. Of approximately one million gallons of water consumption per day, 70% comes from wells throughout the Township. Some of these wells are located in densely populated areas which makes it extremely important to protect the water in the watershed area. Public education and awareness is a key element of the Source Water Protection Program.

Matthew Bixler and Andrew Baeshar, consultants for Spotts, Stevens, and McCoy, gave a slide presentation on the process utilized to develop this plan through the cooperation of the DEP Source Water Protection Technology Assistance Program. Participating in this program is strictly voluntary. The funding comes through the Department of Environmental Protection (DEP). Dover Township is being proactive by understanding the importance of protecting the water supply. The goal of the source water protection is to keep the pollutants out of the source water. It is less costly to keep the pollutants out of the water supply than to treat the water supply after your water becomes polluted. One of the first steps is to determine the protection zones for the water sources. The next step is to identify the potential sources of contamination. One of the final steps is to identify the management options. A program goal is to improve water quality of the water supply through local management and partnerships. The plan should be written in a manner that is understandable and practical.

Andrew Baeshar explained the details of the plan. A hydro-geological model is used to determine where the water originates. Dover Township has a total of ten wells. They exist in both rural areas and heavily populated residential areas. The wells pull from the sandstone and shale of the New Oxford and Gettysburg formations. The wells are located in several different watersheds. The modeling was based on a 45 square mile area. The watershed is much larger. Within the modeling area, there are 98 miles of streams. There are 66 withdrawal wells (wells which draw water from the aquifer) and 104 observation wells (wells reported to USGS, DEP, or DCNR and contain some type of water level). Other factors involve soil, slopes, and lithology. From the information gathered, protections zones are developed for the existing wells. There are three protection zones. Zone 1 is protected the most stringently. Zone 2 marks a ten year time of travel in which a drop of water from the surface will take ten years underground to reach the well. (This is only a surface

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representation of the subsurface.) Zone 1 for each of the wells is 400 feet. The total area covered in Zone 2 is 2.7 miles. Each Zone 2 varies in size. The entire watershed (Zone 3) is 44.5 square miles covered under the Wellhead Protection Program. Conewago Creek was used as the watershed boundary. Land uses will also affect the water system. Dover Township has a balance between open fields, forestry, pastures, and farmland or urban and residential areas. In identifying the potential sources of contamination, they are separated into two different categories. There are non-point sources and point sources. Non-point sources cannot be positively identified. Point sources can be identified as contamination hazards. The susceptibility analysis helps to determine the persistence, quality, quantity, and movement of the contamination which is classified by a ranking system. The greatest threats to the water system are in Zones 1 and 2 and have a high ranking of A or B. Zone 3 has 76% designated to agriculture. Runoff from fertilizers, pesticides, and manure application are all potential sources of contamination from agriculture areas. It should be addressed under the best management practices. The next highest is residential. Residential areas can be very problematic for source water protection. 29% is covered by Commercial and Industrial areas. They are ranked high because of impervious surfaces and use of chemicals. Transportation networks can also be detrimental to the water system. Major routes which run through Zone 3 are Routes 30, 74, and 921. 161 Point sources were identified at 109 different locations in Dover Township. There are 13 potential sources of contamination in Zone 2. There are currently sixteen potential future well sites located in Dover Township from a previous study performed nearly thirty years ago.

Mr. Bixler addressed the regulatory and non-regulatory approaches for potential sources of contamination. Regulatory approaches include wellhead protection overlays. Education is an example of a non-regulatory approach. Partnering with other organizations, such as the other watersheds, the Conservation District, and the Planning Commission, will help the Township with any existing programs in operation. Management options were established by Spotts, Stevens, and McCoy and given to the Steering Committee. They recommended that the Steering Committee stays in existence and meets on an annual or bi-annual basis. Things within the Township will change in the future and so will this plan. It is important to update the plan.

Mr. Farley reviewed some of the regulatory aspects instituted by the Township which included the finalization of the new subdivision ordinance with the introduction of a "green" development section; nutrient management requirements for agriculture utilized since 2004; and underground storage tanks are regulated through Wellhead Protection Permits. Recently, Royal Farms was permitted for their underground fuel tanks in close proximity of Well No. 9. For several years, Dover Township has been regulating the mandatory pumping of septic systems. He reported that the non-regulatory options involve the publishing of recycling materials in the Township Newsletter along with hazardous materials; to have water supply signs installed; continue meeting with the Source Water Protection Committee; and develop ways to promote community public awareness/education. He commented that due to limited staff and resources, this is a relatively good start and the Township will continue to expand on this program.

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Mr. Bixler reported that the Township will be receiving five copies of the Source Water Protection Plan, the maps discussed in this presentation, a CD containing all of the gathered documentation with the ability to re-create maps and revise the information, electronic copies of the plan, and brochures on source water protection for distribution to the residents.

Ed Chescattie from the Department of Environmental Protection in the Harrisburg Regional Office acknowledged Dover Township for their impressive accomplishment by stating that of the 630 community water systems in the Pennsylvania South Central Regions only 32 have achieved this status. Statewide, there are several thousand water systems of which 125 have accomplished this achievement. He added that DEP looks forward to the annual updates on the groundwater protection efforts. On behalf of DEP, he presented Mr. Farley a certificate recognizing the outstanding efforts of the Dover Township Water System in developing an approved Wellhead Protection Program and the implementation of this program exemplifies the strong commitment to source water protection and providing safe drinking water to customers. He thanked Chuck Farley and all of the committee members that were involved.

Chair Kann thanked the representatives from Spotts, Stevens, and McCoy for their informative presentation, also DEP for the certificate, and Chuck Farley and the committee for their hard work and continuing efforts to develop this plan. Mr. Kann expressed the importance of the protection of the Township's water source and his appreciation of the accomplishment of this plan and future hopes of building upon the program.

Chair Kann adjourned the public meeting at 6:50 PM.

Respectfully submitted by:

Dawn D. Slegel, Secretary