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DEPARTMENT OF HEALTH AND HUMAN RESOURCES
BUREAU FOR PUBLIC HEALTH
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Earl Ray Tomblin
Governor

Karen L. Bowling
Cabinet Secretary

December 15, 2015

The Honorable William P. Cole III, President
West Virginia Senate
Room 229M, Building 1
State Capitol Complex
Charleston, West Virginia 25305

The Honorable Tim Armstead Speaker
West Virginia House of Delegates
Room 228M, Building 1
State Capitol Complex
Charleston, West Virginia 25305

Dear President Cole and Speaker Armstead:

As required by West Virginia Code §22-31-2, please find enclosed the Public Water System Supply Study Commission Report to the Joint Committee on Government and Finance of the West Virginia Legislature.

If you have any questions or concerns, please feel free to contact the WVDHHR BPH at 350 Capitol Street, Room 702, Charleston, West Virginia 25301-3714 or call (304) 558-2971.

Sincerely,

Rahul Gupta, MD, MPH, FACP
Commissioner and State Health Officer

RG/jr

Enclosure

Report to the Joint Committee on Government and Finance of the West Virginia Legislature By The Public Water System Supply Study Commission

Rahul Gupta, MD, MPH, FACP Chairman

December 15, 2015

Table of Contents

Introduction 1

Members of the Commission 2

Recommendations 3

- Work Group 1 3
- Work Group 2 4
- Work Group 3 5
- Work Group 4 6
- Work Group 5 6

Acronyms 9

Appendix A 10

Appendix B 29

Appendix C 34

Appendix D 37

Appendix E 39

Appendix F 47

Appendix G 48

Introduction

On March 8, 2014 the West Virginia Legislature passed Senate Bill No. 373 (SB373) which established the Public Water System Supply Study Commission (Commission). The first meeting of the Commission commenced on September 22, 2014. The initial report was submitted to the Legislature's Joint Committee on Government and Finance on December 15, 2104.

Since the submission of the 2014 report, the West Virginia Legislature passed Senate Bill No. 423 (SB423) on March 14, 2015, with an effective date of June 12, 2015. The bill's purpose was to amend the Aboveground Storage Tank Act to address and correct certain unintended consequences of the original enactment. Much of W.Va. Code §22-31 has been deleted although key provisions have been moved into W.Va. Code §22-30.

SB423 modified the membership of the Commission to add two representatives designated by the West Virginia Business Industry Council; and one representative designated by West Virginia Rivers Coalition in addition to the previous members appointed by the Governor, one of whom to be a professional engineer experienced in the design and construction of public water systems; one a professional hydrologist and one an environmental toxicologist or other public health expert familiar with the impact of contaminants on the human body and one citizen representative. No longer included in the Commission are the appointees from the West Virginia House and Senate. The State agencies and other organizations that served previously under SB373 remain on the Commission. However, the position of Commission chair transferred from the Director of the Division of Homeland Security and Emergency Management (DHSEM) to the Commissioner of the Bureau for Public Health (BPH).

The charge to the Commission, as outlined in SB423, is consistent with the charge under SB373. As specified by both bills, the Commission was created for the purpose of studying and reporting back to the Legislature. The following is a list of the current members of the Commission.

Members of the Commission

Rahul Gupta, MD, MPH, FACP, Chair
Representing Bureau for Public Health

Jimmy Gianato
Representing West Virginia Division of Homeland Security and Emergency Management

Tim Ball, Morgantown Utility Board
Representing the West Virginia Municipal League

David Acord (Designee)
Representing West Virginia Public Service Commission

Michael McCawley, PhD
West Virginia University
Representing an environmental toxicologist or other public health expert who is familiar with the impact of contaminants on the human body

Pam Nixon
Citizen Representative

Terry Polen, PhD (Designee)
Representing the West Virginia Department of Environmental Protection

Rick Roberts, E.L. Robinson Engineering
Representing a professional engineer experienced in the design and construction of public water systems

Amy Swann
Representing the West Virginia Rural Water Association

Evan Hansen, Downstream Strategies
Representing West Virginia Rivers Coalition

Ed Watson, Canaan Valley Institute
Representing a hydrologist or other expert experienced in determining the flow characteristics of rivers and streams

Jeffrey McIntyre, President
West Virginia American Water Company
Representing West Virginia Business Industry Council

Rebecca McPhail, President
West Virginia Manufacturers Association
Representing West Virginia Business Industry Council

Commission Recommendations

The Commission has been charged by SB423 with making recommendations related to five specific tasks. The first recommendations were submitted to the Legislature in December 2014 in order to achieve the tasks set out through passage of SB373 in 2014. SB423 updated provisions of the previous bill.

Since its original appointment in 2014, the Commission has met on ten occasions, five times in 2014 and five times in 2015. The Work Groups which were created in 2014 and continued into 2015, took on the tasks as outlined in SB423.

The following is a compilation of the Work Group recommendations which have been approved and are being advanced by the full Commission.

The minutes of the Commission's 2015 meetings may be found in Appendix A, with the exception of those from December 11, 2015 which have not yet been approved by the Commission. The composition of the Work Groups is listed in Appendix C.

Work Group 1

(1) A review and assessment of the effectiveness and the quality of information contained in updated Source Water Protection Plans (SWPPs) required for certain public water systems by the provisions of section nine-c, article one, chapter sixteen of this code

Recommendation of Work Group 1

At the time of this report, the BPH is beginning to receive a few SWPPs from Public Water Systems (PWSs) subject to provisions of SB423 (Appendix B). The agency has not approved any plans at this time.

Recommendation 1.1:

The Commission advances the recommendation to require either an annual evaluated and documented exercise of the SWPP or a documented annual review, and update if necessary, of the SWPP, with the utility reporting this information to the BPH.

Narrative:

An annual exercise of the SWPP would allow the PWS to review, refine and update the actions and goals identified in the plan. An exercise allows the opportunity for partners outside of the PWS to become more aware of the SWPP and the water system. Exercises can benefit all parties in implementing plans, identifying deficiencies and/or weaknesses which can subsequently be addressed. Exercises should be conducted in a format prescribed by the DHSEM that follows federal Homeland Security exercise guidelines. An alternative would be to have an annual review and update of the SWPP. This would consist of bringing together emergency responders and other stakeholders to review and provide comments on the SWPP as necessary.

Recommendation 1.2:

The Commission advances the recommendation to modify W.Va. Code §22-30-14 to clarify what information can be released by the Public Water System Supply Study Commission (PWSSSC) and making it permissible to release information that is already in the public domain. The proposed modification may be found in Appendix D.

Narrative:

As water systems are preparing their SWPPs, they are also providing information to the public. The current code limits the information that can be presented regarding the potential contaminant sources. Many of the potential contaminant sources are currently within the public domain. This modification would clarify that PWSs may identify potential contaminant sources that are already subject to public disclosure when engaging the public. It also clarifies the rulemaking authority of the DHSEM regarding restricting information from public disclosure.

Recommendation 1.3:

The Commission advances the recommendation that DEP and the owner/operator notify downstream water utilities if there is a change in substance and/or a substantive change within an aboveground storage tank as outlined in W.Va. Code §22-30-9 (b) 1-6. Such notification is to be made as soon as possible.

Narrative:

As the owners of aboveground storage tanks modify the tanks or contents, the downstream water utilities should be notified as soon as possible of the changes. That would allow the water utilities to make any necessary adjustments to their SWPPs, thereby keeping the plans as current as possible. This also keeps the water utility knowledgeable on potential contaminates within the watershed.

Work Group 2

(2) A review and assessment of the effectiveness of legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting PWSs in identifying and reacting or responding to identified potential sources of significant contamination, and increasing public awareness and public participation in the emergency planning and response process

Recommendation of Work Group 2

Since the legislation has been in effect a relatively short period of time, this Work Group is still evaluating recommendations. Due to the recent passage of SB 423, the Commission was unable to assess the overall effectiveness of the legislation in this area.

There are no final recommendations at this time, the Work Group will continue its work on evaluating the effectiveness of the legislation. The current findings, discussions and report that this Work Group is considering may be found in Appendix E.

Work Group 3

(3) The extent of available financing and funding alternatives which are available to existing PWSs to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply

Recommendations of Work Group 3

Recommendation 3.1:

The Commission advances a recommendation for a continuing two million dollar appropriation to the BPH.

Narrative:

Funding would allow for continuation of BPH's State-level Source Water Protection Program efforts and provide a continuing source of grant monies available to systems as they move forward on their statutorily required 3-year updates.

Recommendation 3.2:

The Commission advances a recommendation that the West Virginia Legislature amend West Virginia Code 16-1-9c as found in Appendix F.

Narrative:

This recommended change in statute allows the BPH to develop rules to provide for a staggering of second round submissions of SWPPs. Staggering submissions allows the agency to more effectively review proposed plans as well as provide technical assistance to public water utilities. This staggering should only apply to the second round submissions. It is the intention of this new rulemaking authority that all future submissions would adhere to a 3-year cycle.

Recommendation 3.3:

The Commission advances a recommendation that the West Virginia Infrastructure and Jobs Development Council (IJDC) and BPH, Office of Environmental Health Services, Drinking Water Treatment Revolving Fund amend their preliminary project ranking and/or scoring structures to add emphasis for source water protection.

Narrative:

This recommendation will assist in placing a particular emphasis on water projects seeking funding for a source water protection project.

Work Group 4

(4) A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer Crop Science incident of 2008

Recommendation of Work Group 4

There are no final recommendations at this time. The Work Group will meet in January 2016 to resume consideration of the recommendations of the U.S. Chemical Safety and Hazard Investigation Board. The Work Group is reviewing an outline of a West Virginia Chemical Release Prevention Program that has been vetted by the U.S. Chemical Safety and Hazard Investigation Board and is included in Appendix G.

Narrative:

The outline was developed by a cross-sector committee convened by People Concerned About Chemical Safety to implement the United States Chemical Safety Board (CSB) recommendations that reduce the frequency and severity of chemical incidents in the Kanawha Valley.

Work Group 5

(5) Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing Public Water Systems, to provide safe and reliable sources of supplies, and to pursue other measures designed to protect the integrity of public water service

Recommendation of Work Group 5

Recommendation 5.1:

The Commission advances that the Legislature should clarify that the utility does not have an implied duty to complete gaps in information on Safety Data Sheets (SDSs) that are provided/submitted. SB373 (2014) previously required Material SDSs to be submitted with the Spill Prevention Response Plan, but changes made in SB 423 (2015) removed this requirement. It is our recommendation that the legislation be amended to

require the SDS information be provided with the Spill Prevention and Response Plans. If there is missing information, the entity submitting the SDS should have the burden of providing additional information. Furthermore, a current web link shall be provided by DEP to ensure that SDS information is available at a central repository accessible to PWSs.

The Commission advances a recommendation that Legislative Rules adopted to implement W.Va. Code §22-30-10 (a) shall ensure that downstream PWSs are provided with the type and quantity of fluid stored in the regulated aboveground storage tanks at the facility and the location of the SDS associated with the fluids in storage.

Narrative:

The Work Group discussed SDSs and recommended that the legislation be amended to require SDS information be provided with the Spill Prevention and Response Plans. The Work Group also discussed the need for an active and live web link to be established by DEP so SDS information is available at a central repository accessible to public utilities.

Recommendation 5.2:

The Commission advances multiple recommendations on the single topic of spill notifications:

a) All spills must immediately, upon discovery, be relayed to any potentially impacted PWSs and to the BPH. The Commission further recommends that such notification be made through protocols established and coordinated with existing spill notification systems (spill reporting hotlines), with emergency response systems (county 911 systems) and with existing geographic information systems (GIS) and databases (such as those operated by the DHSEM, county 911 systems and the DEP), if possible. By efficiently utilizing existing GIS data, the spill location should be cross-referenced with a database of PWS information and the PWSs which may be impacted so that they can be quickly determined and automatically notified. Every effort will be made to determine location using GIS coordinates.

b) The reporting system should, at a minimum, provide information on the precise location of the spill, the date and time of occurrence, the material(s) released and the stream(s) potentially impacted. Additional training/scripts for those taking the calls is recommended to obtain consistent information for each event.

c) All spills must be reported with reference to standardized global positioning system (GPS) coordinates. The Commission further recommends that the system be based upon the widely used and well-understood Latitude/Longitude system with location data obtained from a GPS receiver. Furthermore, correction notices will be issued, as necessary, and confirmation of the response and confirmation of the resolution shall be distributed.

Narrative:

The intent of the recommendations is to ensure the timeliest and most accurate information regarding spills that may enter the waterways is provided to the appropriate entities. At times, reports received related to spills are incomplete and in some cases inaccurate based on initial reporting from the scene. Additional training/scripts provided to those receiving the spill notification calls would improve consistency and accuracy of the information obtained from the entity submitting the notification for the event.

Recommendation 5.3:

The Commission advances a recommendation that DHSEM and Local Emergency Planning Committees (LEPC) provide available information to the PWSs, that they are not statutorily prohibited from providing to the public, to assist PWSs in identifying mobile threats.

Narrative:

The Work Group discussed mobile threats which were not specifically addressed in SB373 (2014) or SB 423 (2015). Mobile threats pose as great or greater threat to PWSs as fixed facilities. Due to the dynamic nature of chemicals moved in transportation, this presents a difficult challenge to having complete SWPPs. LEPCs and local emergency responders are an invaluable resource to PWSs and should be consulted in the development of SWPPs. LEPCs have information such as commodity flow studies, hazard analysis, transportation routes and other key information that is vital to PWS's SWPP development.

Recommendation 5.4:

The Commission advances a recommendation that the Legislature should consider legislation to establish income tax credits for landowners for source water protection.

Narrative:

Similar programs have succeeded in many states, including Maryland (Md. Code § 10-723) and Virginia (Va. Code Ann. § 58.1-510-513) and provide incentives for landowners to protect source water. Any tax credits would be offset by other revenue sources.

Acronyms

BPH	Bureau for Public Health
CSB	United States Chemical Safety Board
DEP	Department of Environmental Protection
DHHR	Department of Health and Human Resources
DHSEM	Division of Homeland Security and Emergency Management
GIS	Geographic Information System
GPS	Global Positioning System
IJDC	Infrastructure and Jobs Development Council
LEPC	Local Emergency Planning Committee
PSC	Public Service Commission
PWS	Public Water System
PWSSSC	Public Water System Supply Study Commission
SB373	Senate Bill 373
SB423	Senate Bill 423
SDS	Safety Data Sheet
SWPP	Source Water Protection Plan

Appendix A

Commission Meeting Minutes

Public Water System Supply Study Commission Meeting Minutes

August 5, 2015 at 10:00 am
Governor's Cabinet & Conference Room-Suite #10

Members Present:	***Agency:***
Rahul Gupta (Chair)	Bureau for Public Health
David Acord on behalf of Rick Hitt	WV Public Service Commission
Amy Swann	WV Rural Water Association
Edward Watson (by phone)	Canaan Valley Institute
Rick Roberts	EL Robinson
Tim Ball	WV Municipal League
Pamela Nixon	Citizen Representative
Michael McCawley	WVU School of Public Health
Terry Polen	WV DEP
Jimmy Gianato & Melissa Cross	WV DHSEM
Evan Hansen	WV Rivers Coalition
Jeffrey McIntyre	WV Business & Industry Council
Rebecca Randolph	WV Business & Industry Council

Others Present:

Luke Mitchell	DHHR/BPH/Center for Threat Preparedness
John Law	Kanawha-Charleston Health Department
T.D. Lively	WVDHSEM
Ken Ward Jr.	Gazette-Mail
Doug Cummings	WVMA
Randall Isom	WVNG
Connie Graytop Lewis	WVE Council

Call To Order

Chair, Dr. Gupta conducted the introductions, gave opening comments and then asks everyone to take a moment to review the minutes from the December 8, 2014 meeting. Amy Swann mentioned that her last name was misspelled and wanted to correct it by adding an additional "n" to her last name. Dr. Gupta made a motion to approve the correction as well as the minutes from the last meeting with all in favor; all approved. Dr. Gupta shared a copy of the December report and encouraged everyone to review as well as reminded everyone the task to prepare a report that will need to be

Dr. Gupta ask everyone if they had reviewed SB's 423 & 373 and if anyone had any questions; no questions were ask and also added that if anyone would like a summary of the changes then BPH will make those available.

The Bureau for Public Health will post the minutes on the Division of Homeland Security and Emergency Management's website as well as create a location on the Bureau for Public Health site.

Tim Ball commented that the role of the commission should be clarified with respect to role in state bureaucracy. He felt that the report was ignored by the Legislature and feels that it is critical that the role needs to be created and the voice strengthened or the work done by the group goes unnoticed.

Dr. Gupta asks if there were any other comments and there was "no response".

Presentation by Colonel Isom

Some comments during the presentation below:

- The Water Crisis Response project focused on the LEBC response plan Emergency Response;
- They are a 1/3 of the way into Phase II and looked at the water modeling proposal from WVU and settled on IC Water. They wrote annex HH of the state response plan;
- Looked at various reports. Established themes coordination, communication, emergency water resources;
- Found there were multiple individuals trying to obtain information from CDC at any one time. CDC gets their information from the ATSDR duty officer and from NTP. They also found that there was a break-down between WV EOC and West Virginia organizations. Dr. Gupta would lead the science cell and tailor the council based upon the incident;
- The scientists would be talking to scientists and experts to experts in order to expedite and get answers quicker;
- IC Water was used to mainly determine weaponized chemicals. We need to model constituents like benzene. The model and bell curve can help tell when to shut down intake and when to reopen;
- They are pretty close to setting up and ready to use the model. Whoever will be modeling will require training;
- Goals and objectives total 6. Working on goal 3. Last thing they will do is a table top exercise. There will be exercise trainings in a regions only not the entire state;
- Ready to beta test and will be beta testing with WVAWC as well;
- Ready to go into implementation stage;
- LEPC will be working with LEPC's and CWS will say what they need. The goal is to respond faster, have picked training sites and be ready to go;
- Evan had question about IC Water as to whether it is publically available and the National Guard is not sure if it is available to the private sector;
- Will be testing regionally with LEPCs. Science cell will be part of the rewrite of the state EOP. They decided to go with Science cell because FEMA is going that way; and
- Dr. Gupta said, there will be a similar fed level science cell to make this effective.
- Rick Roberts would like a phase 1 report.
- Shared brief update on NTP - news release in packet.
- There was a brief discussion of Work Groups.

2015 WORK GROUPS
(Includes new members)

Work Group 1
(A Review and assessment of the effectiveness and the quality of information contained in updated Source Water Protection Plans required for certain public water systems by the provisions of sections nine-c, article one, chapter sixteen of this code)

The following changes were voted on by all of the members and all members voted yes to the changes:

- Amy Swann nominated Dr. Gupta as chair of Work Group 1;
- Evan Hansen, Ed Watson and Jeffrey McIntyre volunteered to be in Work Group 1.

Dr. Gupta (Chair) (Walt Ivey serving as proxy)
Tim Ball
Evan Hansen
Michael McCawley
Jeffrey McIntyre
Ed Watson

Work Group 2
(A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process)

- Evan Hansen volunteered to be added to Work Group 2.

Terry Polen (Chair)
Tim Ball
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen
Pam Nixon
Amy Swann

Work Group 3
(The extent of available financing and funding alternatives which are available to existing public water systems to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply)

- Jeffrey McIntyre volunteered to be added to Work Group 3.

Amy Swann (Chair)
Mike Albert (Rick Hitt)
Jeffrey McIntyre
Rick Roberts
Ed Watson

Work Group 4
(A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer CropScience incident of 2008)

- Rebecca Randolph volunteered to be added to Work Group 4.

Mike McCawley (Chair)
Pam Nixon
Rebecca Randolph
Ed Watson

Work Group 5
(Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing public water systems, to provide safe and reliable sources of supplies and to pursue other measures designed to protect the integrity of public water services)

- Jeffrey McIntyre volunteered to be added to Work Group 5.

Rick Hitt (Chair)
Tim Ball
Jeffrey McIntyre
Rick Roberts
Amy Swann
Dr. Rahul Gupta (Walt Ivey serving as proxy)

The members discussed that there should be a timeline for reports and workgroup meetings and that it will be the Chair's responsibility to schedule their groups meeting.

Rick Roberts indicated it would be helpful to be able to see/review some of the Sourcewater Plans.

Next Meeting

The members suggested that the next meeting should take place in October and then two additional meetings should be held in December.

Public Comments:

No comments or questions from the public.

Dr. Gupta made a motion to adjourn all members agreed.

Public Water Supply System Study Commission Meeting Minutes

October 16, 2015 at 10:00 am
Governor's Cabinet & Conference Room-Suite #10

Members Present:	***Agency:***
Rahul Gupta (Chair)	Bureau for Public Health
Rick Roberts	E.L. Robinson Engineering Company
David Acord	WV Public Service Commission
Michael McCawley	WVU School of Public Health
Terry Polen	WV DEP
Jimmy Gianato	WVDHSSEM
Brett Morgan on behalf of Jeffrey McIntyre	WV Business & Industry Council
Edward Watson	Canaan Valley Institute
Doug Smith on behalf of Tim Ball	WV Municipal League
Evan Hansen	WV Rivers Coalition
Amy Swann	WV Rural Water Association
Edward Watson	Canaan Valley Institute
Pamela Nixon	Citizen
Rebecca Randolph (by phone)	WV Business & Industry Council

Others Present:	
Philip Price	Neoteric Associates
Jim Hatfield	Public
Norm Ferguson	Public
Walt Ivey	DHHR/BPH/Environmental Health
Barbara Taylor	DHHR/BPH
Brian Skinner	DHHR/BPH
Toby Wagoner	DHHR/BPH
Bill Toomey	DHHR/BPH/Environmental Health
Julie Randolph	DHHR/BPH

Call To Order

Dr. Gupta (Chair) conducted the introductions, gave opening comments and then asks everyone to take a moment to review the minutes from the August 5, 2015 meeting. The group had a few corrections which were noted and amended copies of the minutes were emailed to all the members. Dr. Gupta made a motion to approve the corrections as well as the minutes from the last meeting. All voted in favor. Dr. Gupta stated that Colonel Isom gave an update on the Source Water Protection Plan at the previous meeting and welcomed Bill Toomey with the WVDHHR Office of Environmental Health Services who gave a presentation on the Source Water Protection Plan (SWPP) updates. (Copies of the SWPP were provided for the members).

- Bill Toomey provided a copy of the Source Water Protection Plan Presentation Talking Points which are attached.

2015 WORK GROUPS
(Includes new members)

Work Group 1

(A Review and assessment of the effectiveness and the quality of information contained in updated Source Water Protection Plans required for certain public water systems by the provisions of sections nine-c, article one, chapter sixteen of this code)

- Dr. Gupta stated that Work Group 1 had just recently received a few Source Water Protection Plans that had been submitted which are still under review but will have to be completed by July 2016. The Group is planning to meet as they receive these Plans and then will be able to report on the status.

Dr. Gupta (Chair) (Walt Ivey serving as proxy)
Tim Ball
Evan Hansen
Michael McCawley
Jeffrey McIntyre
Ed Watson

Work Group 2

(A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process)

- Terry Polen (Chair) stated that Work Group 2 have met and are working on moving beyond to put together a strong plan relatively rather quickly.

Terry Polen (Chair)
Tim Ball
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen
Pam Nixon
Amy Swann

Work Group 3

(The extent of available financing and funding alternatives which are available to existing public water systems to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply)

- Amy Swan (Chair) reported that their Work Group met on Monday, October 12, 2015 at 1:30 pm at the West Virginia American Water Company and that they looked over their recommendations from last year and it looks like the Bureau for Public Health is going to provide the group with some updated cost information, based upon last year's estimated plan of hundred thousand dollars, and now that they have some plans, can they look at the cost and see if that is reasonable. The next meeting will focus on some ideas for funding.

Amy Swann (Chair)
Rick Hitt (Designee for Mike Albert)
Jeffrey McIntyre
Rick Roberts
Ed Watson

Work Group 4
(A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer CropScience incident of 2008)

- Mike McCawley (Chair) reported that Work Group 4 is working on outlining a strong end document and that as soon as it is completed, they will send it out to the group for any edits, which will then follow-up with a meeting where they will work together as a group to review and make the proper edits.

Mike McCawley (Chair)
David Acord
Pam Nixon
Terry Polen
Rebecca Randolph
Ed Watson

Work Group 5
(Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing public water systems, to provide safe and reliable sources of supplies and to pursue other measures designed to protect the integrity of public water services)

- Dave Acord (Chair) reported that Work Group 5 also met on October 12, 2015, at 3:00 pm, also at the West Virginia American Water Company where they discussed a number of items and looked at sheets with the NSDS information, spill reporting, local threats, possible adjustments or amendments to some West Virginia Code sections and also maybe some income and tax credits. These were the bases for their recommendations in 2014 and are re-evaluating some of those and will probably be proposed again as a final recommendation and others may no longer be needed. They will have a meeting soon to hopefully come up with the final recommendations.

Dave Acord (Chair)
Tim Ball
Jeffrey McIntyre
Rick Roberts
Amy Swann
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen

Discussion

A final report has to be submitted to the joint committee by December 15, 2015 and to meet that deadline the Work Groups have to submit their recommendations. Once submitted the group will work together to create a final report for submission to the legislature.

Next Meeting

Dr. Gupta explained to the members that the Commission will have to meet a few more times to finalize the report and then the last meeting of the year may be around three to four hours so everything can be reviewed and decided. Julie Randolph will send out a doodle to decide upon some dates everyone can be available to meet.

Public Comments:

Jim Hatfield directed a question to Work Group 3 in terms of funding for second water sources.

Second source for the Elk River Plant his understanding by looking at the budget for West Virginia American Water is that they budgeted on an order of one million dollars this year to study the Kanawha River for a possible second source as an alternative in case the Elk River suffers another spill. He wanted to bring to everyone's attention of an additional water source that serves three thousand people which is the reservoir at Coon Skin Park.

Norman Ferguson just wanted to thank everyone for the work that they are doing to hopefully prevent anything from happening again with the public water system.

Dr. Gupta thanked them for their comments.

Dr. Gupta made a motion to adjourn all members agreed.

Public Water System Supply Study Commission Meeting Minutes

November 18, 2015 at 10:00 am
South Charleston Public Library

Members Present:	***Agency:***
Rahul Gupta (Chair)	Bureau for Public Health
David Acord	WV Public Service Commission
Amy Swann	WV Rural Water Association
Edward Watson	Canaan Valley Institute
Rick Roberts	EL Robinson
Tim Stranko (by phone on behalf of Tim Ball)	WV Municipal League
Pamela Nixon	Citizen
Michael McCawley	WVU School of Public Health
Terry Polen (by phone)	WV DEP
Evan Hansen	WV Rivers Coalition
Jeffrey McIntyre	WV Business & Industry Council

Others Present:	
David Gutman	Gazette-Mail
Lew Baker	Rural Water Association
Walt Ivey	DHHR/BPH/Environmental Health
Barbara Taylor	DHHR/BPH
Brent Bailey	WV Land Trust
Terrell Ellis	WV Land Trust
Toby Wagoner	DHHR/BPH
Brian Skinner	DHHR/BPH

Call to Order

Chair, Dr. Gupta conducted the introductions, gave opening comments and then asks everyone to take a moment to review the minutes from the October 16, 2015 meeting. Jeff McIntyre made a motion to approve the minutes; Rick Roberts seconded the motion, all voted in favor.

Dr. Gupta asks if there were any other comments; there was "no response".

Dr. Gupta introduced Terrell Ellis with West Virginia Land Trust, who gave a presentation on "Land Conservation in West Virginia".

2015 WORK GROUPS
(Includes new members)

Work Group 1

(A Review and assessment of the effectiveness and the quality of information contained in updated Source Water Protection Plans required for certain public water systems by the provisions of sections nine-c, article one, chapter sixteen of this code)

- Walt Ivey reported that Work Group 1 worked on the following recommendations:

1. Review of the Source Water Protection Plans – This is being done based on the template that was provided to the commission members;
2. Revise a previous recommendation that will require an annual exercise of the protection plan to include an alternative would be for the water system to do an annual review of the protection plan. This would be provided to the Bureau for Public Health;
3. Modify 22-30-14 to clarify what can be released by the Public Water System to the public. Especially information that is already in the public domain;
4. Hazard Rating of chemicals defined and provided to public water systems. This will be investigated further and developed into a recommendation for this workgroup or another one; and
5. Clarify when potential contaminant sources will be updated and provided to public water systems. This would include when the contents in above ground storage tanks were changed or new tanks were installed/permitted.

The first four were identified by Walt Ivey and the fifth one was identified by Jeff McIntyre.

Dr. Gupta (Chair) (Walt Ivey serving as proxy)
Tim Ball
Evan Hansen
Michael McCawley
Jeffrey McIntyre
Ed Watson

Work Group 2

(A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process)

- In an attempt to clarify the effectiveness and efficiency of the legislation, the workgroup has separated this question into four more specifically identifiable and quantifiable questions. Additionally, the workgroup has expanded the charge to beyond the 2014 legislation to the 2015 legislation and the proposed legislation. A 12 page strawman was sent out on November 15, 2015 for discussion within the group. A teleconference meeting is scheduled for December 1 to, it is hoped, finalize the comments.

Terry Polen (Chair)
Tim Ball
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen
Pam Nixon
Amy Swann

Work Group 3

(The extent of available financing and funding alternatives which are available to existing public water systems to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply)

- The Work Group decided that the main recommendation would be to ask the Legislature to provide two million dollars per year to provide assistance for water systems to continue updating their Source Water Protection Plans as required by law.

- There was discussion on making a recommendation to stagger the submittals of the updated Source Water Protection Plans. The updated plans are due every three years. It would be more manageable to have the submittal of the updated Source Water Protection Plans evenly over the three year period instead of all within one year. The code will be reviewed and a recommendation will be made to allow for the staggering of the updated protection plans.

- Discussion as to what can be done to provide priority funding opportunities for source water protection projects. There may need to be some discussion with the Infrastructure and Jobs Development Council (IJDC) to elevate source water protection projects so that they can receive funding assistance. Jeff McIntyre made the comment that this is also an inequality to the customers of the privately owned water systems because they are not eligible to receive IJDC funding which could lower the cost to those customers. This is another area where the rate payers from a privately owned water system may have to pay more than a publically owned water system.

Amy Swann (Chair)
Dave Acord (Designee for Mike Albert)
Jeffrey McIntyre
Rick Roberts
Ed Watson

Work Group 4

(A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer CropScience incident of 2008)

- Work Group 4 met on November 19, 2015 at the Law School in Morgantown. They are looking over a strawman they sent out with two recommendations in it as follows:
  - The first being to adopt a chemical release prevention program that the committee had worked up and is available to look at, and the second one;
  - Was that the chemical safety board said that they thought that most of the recommendations could be adopted without any legislation necessary.

Mike McCawley (Chair)
Pam Nixon
Rebecca Randolph
Ed Watson

Work Group 5
(Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing public water systems, to provide safe and reliable sources of supplies and to pursue other measures designed to protect the integrity of public water services)

- Dave Acord (Chair) reported that Work Group 5 held its last meeting on November 5, 2015, to continue discussions on MSDSs, Spill Reporting, Mobile Threats, and Income Tax Credits for source water protection. They have drafted language for each of the recommendations and their next meeting is scheduled for November 30, 2015, at 1:30pm at the Public Service Commission offices in Charleston, to finalize recommendations. Copies of all meeting minutes along with recommendations will then be forwarded to Dr. Gupta for consideration by the PWSSSC.

David Acord (Chair)
Tim Ball
Jeffrey McIntyre
Rick Roberts
Amy Swann
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen

Next Meeting

The members discussed that the next meeting will take place on December 4, 2015.

Public Comments:

No comments or questions from the public.

Dr. Gupta made a motion to adjourn all members agreed.

Public Water System Supply Study Commission Meeting Minutes

December 4, 2015 at 12:30 pm
Governor's Cabinet & Conference Room-Suite #10

Members Present:	***Agency:***
Rahul Gupta (Chair)	Bureau for Public Health
David Acord	WV Public Service Commission
Michael McCawley	WVU School of Public Health
Terry Polen	WV DEP
Melissa Cross on behalf of Jimmy Gianato	WVDHSSEM
Jeffrey McIntyre	WV Business & Industry Council
Edward Watson	Canaan Valley Institute
Tim Ball	WV Municipal League
Evan Hansen	WV Rivers Coalition
Amy Swann	WV Rural Water Association
Pamela Nixon	Citizen Representative
Rebecca McPhail	WV Business & Industry Council

Others Present:	
Jennifer Haymann	WV American Water
Terrell Ellis	WV Land Trust
Norm Ferguson	Public
Walt Ivey	DHHR/BPH/Environmental Health
Barbara Taylor	DHHR/BPH
Brian Skinner	DHHR/BPH
John D. Law	KCHD
Julie Randolph	DHHR/BPH
Betty Rivard	Volunteer Advocate
Conni Gratop Lewis	WV Environmental Council
Angie Rosser	WV Rivers Coalition
Autumn Bryson	WV Rivers Coalition

Call to Order

Chair, Dr. Gupta conducted the introductions, gave opening remarks, and then asks everyone to take a moment to review the minutes from the November 18, 2015 meeting. The group had no corrections, Jeff McIntyre made a motion to approve the minutes, David Acord second, all voted in favor by saying aye.

2015 WORK GROUPS

Work Group 1

(A Review and assessment of the effectiveness and the quality of information contained in updated Source Water Protection Plans required for certain public water systems by the provisions of sections nine-c, article one, chapter sixteen of this code)

Walt Ivey presented the following recommendations for Work Group 1.

Recommendation 1:

- Require either an annual evaluated and documented exercise of the source water protection plan or a documented annual review and update of the source water protection plan, with Utility reporting this to the Bureau for Public Health.

Recommendation 2:

- Modify §22-30-14 to clarify what can be released by the Public Water System and to make it permissible to release information that is already in the public domain.

Recommendation 3:

- Department of Environmental Protection to notify downstream water utilities if there is a change in substance and/or a substantive change within an above ground storage tank as outlined in §22-30-9 (b) 1-6. Such notification is to be made as soon as possible.

Evan Hansen made a motion to accept the recommendations, Tim Ball second the motion; all were in favor by saying aye.

Dr. Gupta (Chair) (Walt Ivey serving as proxy)
Tim Ball
Evan Hansen
Michael McCawley
Jeffrey McIntyre
Ed Watson

Work Group 2
(A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process).

Mr. Polen suggested and the members agreed that they would like more time to review and decide by the next meeting, due to the fact that there are currently no recommendations and that the review will help the members decide whether or not this information will be included in the report.

Terry Polen (Chair)
Tim Ball
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen
Pam Nixon
Amy Swann

Work Group 3

(The extent of available financing and funding alternatives which are available to existing public water systems to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply).

Amy Swann presented the following recommendations for Work Group 3.

Recommendation 1:

Advance a recommendation that the full Commission recommends a continuing $2 million dollar appropriation to the Department of Health and Human Resources, Bureau for Public Health for continuation of their source water protection efforts and in providing grant monies to systems as they complete their Source Water Protection Plans and begin their statutorily required 3 year updates.

Recommendation 2:

- Advance a recommendation that the West Virginia Legislature amend West Virginia Code 16-1-9c (f) as follows:
  - (f) A public water utility is required to file an updated plan, in accordance with the provisions of this section, as follows:
    - Whenever there is a substantial change in the potential sources of significant contamination within the identified zone of critical concern; and
    - Pursuant to a schedule contained in a legislative rule proposed by the Secretary and promulgated pursuant to article three, chapter twenty-nine-A of the Code.
  - (g) Any public water utility required to file a complete or updated plan in accordance with the provisions of this section shall review any source water protection plan it may currently have on file with the bureau and update it to ensure it conforms with the requirements of subsection (b) of this section on or before July 1, 2016.
  - (h) The commissioner's authority in reviewing and monitoring compliance with a source water protection plan may be transferred by the bureau to a nationally accredited local board of public health.
  - (i) The Secretary is authorized to propose legislative rules for promulgation pursuant to article three, chapter twenty-nine-A of the Code to implement the provisions of this section.

Recommendation 3:

- Advance a recommendation that the West Virginia Infrastructure and Jobs Development Council amend its preliminary project ranking and/or scoring structure to add a source water protection scoring in the Bureau for Public Health's section. It is also recommended to be added to the Office of Environmental Health Services District Review for Infrastructure Council Projects. This will assist in placing a particular emphasis on water projects seeking funding for a source water protection project.

Dr. Gupta asks for a motion to approve Recommendations 1 and 3; the members were all in favor by saying aye. Recommendation 2 was discussed during the afternoon working session.

Amy Swann (Chair)
Rick Hitt (Mike Albert)
Jeffrey McIntyre
Rick Roberts
Ed Watson

Work Group 4
(A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer CropScience incident of 2008)

Mike McCawley (Chair) reported the following recommendation for Work Group 4:

Recommendation 1:

- Further evaluation is needed.

Dr. Gupta asks for a motion to accept the recommendation to further review the U.S. Chemical Safety and Hazard Investigation Board after its investigation of the Bayer CropScience incident of 2008. All members were in favor by saying aye.

Mike McCawley (Chair)
Pam Nixon
Rebecca Randolph
Ed Watson

Work Group 5
(Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing public water systems, to provide safe and reliable sources of supplies and to pursue other measures designed to protect the integrity of public water services)

Dave Acord (Chair) reported the following recommendations for Work Group 5:

Recommendation 1:

- The Legislature should clarify that the utility doesn't have an implied duty to complete gaps in information on Material Safety Data Sheets (MSDSs) that are provided/ submitted. Senate Bill 373 (2014) previously required MSDS information to be submitted with the Spill Prevention Response Plan, but changes made in Senate Bill 423 (2015) removed this requirement. It is our recommendation that the legislation be amended to require the MSDS information be provided with the Spill Prevention and Response Plans. If there is missing information, the entity submitting the MSDS should have the burden of providing additional information. ~~The Department of Environmental Protection~~

~~(DEP) is encouraged to work with a national toxicology group to assist with this issue and to enforce the law.~~ Furthermore, ~~an active~~ a current ~~and live~~ web link shall be provided ~~should be established~~ by DEP to ~~so~~ MSDS that information is available at a central repository available to public utilities. West Virginia Code § 22-30-10 (a) should be amended to require notification to any downstream public water systems.

Recommendation 2:

- The group recommends that all spills must immediately, upon discovery, be relayed to any potentially impacted Public Water Systems (PWS) and to the Bureau for Public Health (BPH). We further recommend that such notification be made via an automated system which is interfaced with existing spill notification systems (spill reporting hotlines), with emergency response systems (county 911 systems) and with existing geographic information system (GIS) and databases (such as those operated by the Division of Homeland Security and Emergency Management, county 911 systems and the WV DEP). By efficiently utilizing existing GIS data, the spill location will ~~may~~ be cross referenced with a data base of PWS information and the water systems which may potentially be impacted can be quickly determined and automatically notified.

  The automated reporting system should, at a minimum, provide information on the precise location of the spill, the date and time of occurrence, the material(s) released and the stream(s) potentially impacted. Systems to meet this requirement do not currently exist and could be quite expensive to develop and implement. Automated notifications during an emergency event could potentially not be received and could lead to further delays in response. In addition many reports received related to spills are incomplete and in many cases inaccurate based on initial reporting. Additional training/scripts for those taking the calls may be beneficial to obtain consistent information for each event.
  The group makes the recommendation that all spills must be reported with reference to standardized GPS coordinate systems. We further, recommend that the system used be based upon the widely used and well-understood Latitude/Longitude system with location data obtained from a GPS receiver. Furthermore, correction notices will be issued, as necessary, and confirmation of the response and confirmation of the resolution shall be distributed.

Recommendation 3:

- The Work Group discussed mobile threats which were not specifically addressed in SB373 (2014) or Senate Bill 423 (2015). Mobile threats pose as great or greater threat to public water systems as fixed facilities. Due to the dynamic nature of chemicals moved in transportation, this presents a difficult challenge to having complete SWPPs. Local emergency Planning Committees (LEPCs) and local emergency responders are an invaluable resource to public water systems and should be consulted in the development of SWPPs. LEPCs have information such as commodity flow studies, hazard analysis, transportation routes and other key information that is vital to public water system plan development. The Department of Homeland Security and Emergency Management (DHSEM) shall

provide information, that they are not statutorily prohibited from providing to the public, to addressing all these efforts.

Recommendation 4:

- The Legislature considers legislation for income tax credits for landowners for source water protection.
- Similar programs have succeeded in many states, including Maryland (Md. Code § 10-723) and Virginia (Va. Code Ann. § 58.1-510-513).

Recommendations 1 and 2 will need further discussion at the afternoon working session. Dr. Gupta asks for a motion to accept the Recommendations for 3 with the amended language and the adoption for Recommendation 4. All members were in favor by saying aye.

Dave Acord (Chair)
Tim Ball
Jeffrey McIntyre
Rick Roberts
Amy Swann
Dr. Rahul Gupta (Walt Ivey serving as proxy)
Evan Hansen

Discussion
A final report has to be submitted to the joint committee by December 15, 2015 and to meet that deadline the work groups have to submit their recommendations to BPH prior to that date.

Next Meeting
Dr. Gupta suggested that the group meet soon so that the draft report can be voted on. After a brief discussion Friday, December 11, 2015 at 1:00 pm at the Public Service Commission was decided on. Members have the choice of attending in person or by conference call and the conference phone number that has been provided for every meeting will be the one used for those who will need to participate by phone. This should be a brief meeting due to the fact that the deadline for the report is due to by December 15th to the Legislature.

Public Comments:
Norman Ferguson stated that he is a member of the public and continues to follow the Public Water System Supply Study Commission meetings to keep updated on the progress of the public water system so that in the future there will be no further drinking water issues. Dr. Gupta thanked him for his comments.

Dr. Gupta, due to another meeting, delegated the Chair position to Commission Member Amy Swann.

Ms. Swann continued the discussion among Commission members in regard to the recommendations.

Following extensive discussions, Commission members, edited, voted on, and accepted recommendations that are reflected in the final report.

Ms. Swann entertained a motion to adjourn, all members were in favor by saying aye.

Appendix B

System ID	System Name	County	Planning and Development Regions (1-11)	DEP Watershed Group (1-5)	Type System	Population
WV3300508	HAMMOND PSD	BROOKE	11	1	SW	2,186
WV3300512	FOLLANSBEE HOOVERSON HEIGHTS	BROOKE	11	1	SW	5,702
WV3300516	WEIRTON AREA WATER BOARD	BROOKE	11	1	SW	22,694
WV3301504	CHESTER	HANCOCK	11	1	SW	3,119
WV3301811	RIPLEY CITY OF	JACKSON	5	1	SW	5,078
WV3302603	CAMERON WATER	MARSHALL	10	1	SW	1,052
WV3303516	WHEELING WATER	OHIO	10	1	SW	22,222
WV3304307	HUGHES RIVER WATER	RITCHIE	5	1	SW	4,278
WV3304405	SPENCER WATER DEPT	ROANE	5	1	SW	5,002
WV3304802	MIDDLEBOURNE WATER WORKS	TYLER	5	1	SW	1,267
WV3304803	SISTERSVILLE MUNICIPAL WATER	TYLER	5	1	SW	1,892
WV3305205	PINE GROVE WATER	WETZEL	10	1	SW	593
WV3305402	CLAYWOOD PARK PSD	WOOD	5	1	SW	7,695
WV3300101	BELINGTON TOWN OF	BARBOUR	7	2	SW	2,153
WV3300104	PHILIPPI CITY OF	BARBOUR	7	2	SW	3,281
WV3300901	WEST UNION TOWN OF	DODDRIDGE	6	2	SW	1,895
WV3301705	CLARKSBURG WATER BOARD	HARRISON	6	2	SW	18,310
WV3301714	LUMBERPORT TOWN OF	HARRISON	6	2	SW	1,788
WV3301721	SHINNSTON CITY OF	HARRISON	6	2	SW	4,903
WV3302104	WVAW - WESTON	LEWIS	7	2	SW	11,436
WV3302502	FAIRMONT CITY OF	MARION	6	2	SW	29,170
WV3302503	FAIRVIEW TOWN OF	MARION	6	2	GU	834
WV3302515	MONONGAH TOWN OF	MARION	6	2	SW	3,171
WV3303111	MORGANTOWN UTILITY BOARD	MONONGALIA	6	2	SW	56,209
WV3303908	KINGWOOD WATER BOARD	PRESTON	6	2	SW	3,102
WV3303912	PRESTON COUNTY PSD 1	PRESTON	6	2	SW	4,043
WV3303914	ROWLESBURG WATER WORKS	PRESTON	6	2	SW	707
WV3303917	TERRA ALTA WATER WORKS	PRESTON	6	2	GU	1,488
WV3304204	HARMAN TOWN OF	RANDOLPH	7	2	GU	188
WV3304202	BEVERLY TOWN OF	RANDOLPH	7	2	SW	2,475

System ID	System Name	County	Planning and Development Regions (1-11)	DEP Watershed Group (1-5)	Type System	Population
WV3304203	ELKINS CITY OF	RANDOLPH	7	2	SW	8,270
WV3304209	MILL CREEK WATER DEPT	RANDOLPH	7	2	SW	976
WV3304605	TAYLOR COUNTY PSD	TAYLOR	6	2	SW	1,322
WV3304701	DAVIS WATER WORKS	TUCKER	7	2	SW	878
WV3304704	HAMRICK PSD	TUCKER	7	2	SW	1,643
WV3304707	PARSONS CITY OF	TUCKER	7	2	SW	1,512
WV3304709	THOMAS CITY OF	TUCKER	7	2	SW	672
WV3304711	TIMBERLINE FOUR SEASON RESORT MANAGEMENT	TUCKER	7	2	GU	591
WV3304902	BUCKHANNON WATER BOARD	UPSHUR	7	2	SW	8,697
WV3300202	BERKELEY CO P S W D-BUNKER HILL	BERKELEY	9	3	GU	26,547
WV3300212	MARTINSBURG CITY OF	BERKELEY	9	3	GU	15,650
WV3300218	BERKELEY COUNTY PSWD-POTOMAC RIVER	BERKELEY	9	3	SW	22,396
WV3301204	PETERSBURG TOWN OF	GRANT	8	3	SW	2,841
WV3301205	MOUNTAIN TOP PSD	GRANT	8	3	SW	2,088
WV3301405	ROMNEY WATER DEPT	HAMPSHIRE	8	3	SW	1,948
WV3301412	CENTRAL HAMPSHIRE PSD GREEN SPRING	HAMPSHIRE	8	3	GU	1,172
WV3301601	MOOREFIELD MUNICIPAL WATER	HARDY	8	3	SW	2,689
WV3301613	HARDY COUNTY PSD BAKER	HARDY	8	3	SW	150
WV3301979	Deerfield Village Subdivision	JEFFERSON	9	3	GU	99
WV3301905	CHARLES TOWN UTILITIES	JEFFERSON	9	3	SW	14,488
WV3301912	CORPORATION OF HARPERS FERRY	JEFFERSON	9	3	SW	1,801
WV3301933	CORPORATION OF SHEPHERDSTOWN	JEFFERSON	9	3	SW	4,000
WV9919068	BURR INDUSTRIAL PARK	JEFFERSON	9	3	GU	2,370
WV3302915	KEYSER CITY OF	MINERAL	8	3	SW	5,202
WV3302921	PIEDMONT MUNICIPAL WTR WKS	MINERAL	8	3	SW	775
WV3302928	FRANKFORT PSD	MINERAL	8	3	SW	5,468
WV3303301	BERKELEY SPRINGS CITY OF	MORGAN	9	3	SW	3,629
WV3303308	PAW PAW WATER WORKS	MORGAN	9	3	SW	552

System ID	System Name	County	Planning and Development Regions (1-11)	DEP Watershed Group (1-5)	Type System	Population
WV3303602	FRANKLIN MUNICIPALITY OF	PENDLETON	8	3	SW	1,732
WV3303611	PENDLETON CO PSD-UPPER TRACT	PENDLETON	8	3	GU	448
WV3303613	PENDLETON CO PSD(BRANDYWINE)	PENDLETON	8	3	SW	804
WV3300315	BOONE RALEIGH P S D	BOONE	3	4	SW	1,317
WV3300402	FLATWOODS CANOE RUN PSD	BRAXTON	7	4	SW	4,143
WV3300404	SUGAR CREEK PSD	BRAXTON	7	4	SW	1,191
WV3300406	WVAW- GASSAWAY	BRAXTON	7	4	SW	2,127
WV3300408	BURNSVILLE PUBLIC UTILITY	BRAXTON	7	4	SW	789
WV3300701	GRANTSVILLE MUNICIPAL	CALHOUN	5	4	SW	841
WV3300801	CLAY WATER DEPT	CLAY	3	4	SW	1,341
WV3300806	CLAY-ROANE PSD (PROCIOUS DISTRICT)	CLAY	3	4	SW	2,162
WV3301004	ARMSTRONG PSD	FAYETTE	4	4	SW	2,318
WV3301024	MOUNT HOPE WATER	FAYETTE	4	4	SW	1,955
WV3301029	WVAWC MONTGOMERY DISTRICT	FAYETTE	4	4	SW	4,724
WV3301037	KANAWHA FALLS PSD	FAYETTE	4	4	SW	2,379
WV3301046	WVAWC NEW RIVER REGIONAL WTR TRTMT PLT	FAYETTE	4	4	SW	25,760
WV3301104	GLENVILLE UTILITY	GILMER	7	4	SW	2,395
WV3301307	LEWISBURG	GREENBRIER	4	4	SW	10,050
WV3301315	ALDERSON WATER	GREENBRIER	4	4	SW	2,680
WV3302009	CEDAR GROVE COMMUNITY OF	KANAWHA	3	4	SW	1,090
WV3302016	WVAWC-KANAWHA VALLEY DIST	KANAWHA	3	4	SW	198,521
WV3302031	ST ALBANS WATER	KANAWHA	3	4	SW	13,265
WV3302205	LINCOLN PSD	LINCOLN	2	4	SW	4,981
WV3302801	ATHENS TOWN OF	MERCER	1	4	SW	4,802
WV3302804	BLUEWELL PSD	MERCER	1	4	SW	6,135
WV3302813	GREEN VALLEY GLENWOOD PSD BULLTAIL	MERCER	1	4	SW	1,869
WV3302835	WVAWC BLUEFIELD DISTRICT	MERCER	1	4	SW	12,174

System ID	System Name	County	Planning and Development Regions (1-11)	DEP Watershed Group (1-5)	Type System	Population
WV3302849	GREEN VALLEY GLENWOOD PSD GLENWOOD	MERCER	1	4	SW	5,775
WV3302852	POCAHONTAS WATER SYSTEM	MERCER	1	4	SW	1,933
WV3303206	RED SULPHUR PSD	MONROE	1	4	SW	5,352
WV3303401	RICHWOOD WATER DEPT	NICHOLAS	4	4	SW	2,940
WV3303402	CRAIGSVILLE PSD	NICHOLAS	4	4	SW	4,723
WV3303403	NETTIE LEIVASY PSD	NICHOLAS	4	4	SW	3,151
WV3303404	SUMMERSVILLE MUNICIPAL WATER	NICHOLAS	4	4	SW	5,746
WV3303405	WILDERNESS PSD	NICHOLAS	4	4	SW	4,475
WV3303802	CASS SCENIC RAILROAD	POCAHONTAS	4	4	SW	1,023
WV3303803	MARLINTON TOWN OF	POCAHONTAS	4	4	SW	1,400
WV3303808	CHEAT MOUNTAIN WATER SYSTEM	POCAHONTAS	4	4	SW	1,867
WV3303812	POCAHONTAS COUNTY PSD	POCAHONTAS	4	4	GU	557
WV3304005	HURRICANE CITY OF	PUTNAM	3	4	SW	8,266
WV3304011	PUTNAM P S D	PUTNAM	3	4	SW	21,719
WV3304104	BECKLEY WATER COMPANY	RALEIGH	1	4	SW	49,058
WV3304407	WALTON PSD	ROANE	5	4	SW	1,925
WV3304507	BIG BEND PSD	SUMMERS	1	4	SW	1,039
WV3304513	WVAWC BLUESTONE PLANT	SUMMERS	1	4	SW	26,499
WV3305103	COWEN PSD	WEBSTER	4	4	SW	2,518
WV3305104	WVAW - WEBSTER SPRINGS	WEBSTER	4	4	SW	1,692
WV3300608	WVAWC - HUNTINGTON DIST	CABELL	2	5	SW	86,827
WV3300609	MILTON WATER	CABELL	2	5	SW	4,883
WV3302203	WEST HAMLIN CITY OF	LINCOLN	2	5	SW	2,964
WV3302331	LOGAN WATER BOARD CITY OF	LOGAN	2	5	SW	4,505
WV3302336	MAN WATER WORKS	LOGAN	2	5	SW	1,008
WV3302347	BUFFALO CREEK PSD	LOGAN	2	5	SW	2,829
WV3302357	LOGAN CO PSD-GREENVILLE SYSTEM	LOGAN	2	5	SW	3,960
WV3302364	LOGAN COUNTY PSD - NORTHERN REGIONAL	LOGAN	2	5	SW	15,715
WV3302434	MCDOWELL COUNTY	MCDOWELL	1	5	GU	1,632

System ID	System Name	County	Planning and Development Regions (1-11)	DEP Watershed Group (1-5)	Type System	Population
	PSD BARTLEY					
WV3302435	MCDOWELL COUNTY PSD BERWIND	MCDOWELL	1	5	GU	863
WV3303002	GILBERT WATER WORKS	MINGO	2	5	SW	1,145
WV3303003	KERMIT WATER WORKS	MINGO	2	5	SW	1,424
WV3303005	MATEWAN WATER WORKS	MINGO	2	5	SW	2,237
WV3303009	WILLIAMSON UTILITY BOARD	MINGO	2	5	SW	4,213
WV3303029	MINGO COUNTY PSD - NAUGATUCK	MINGO	2	5	SW	4,654
WV3305004	FORT GAY WATER WORKS	WAYNE	2	5	SW	2,287
WV3305007	WAYNE WATER TOWN OF	WAYNE	2	5	SW	5,684
WV3305009	KENOVA MUNICIPAL WATER	WAYNE	2	5	SW	9,254
WV3305516	OCEANA COMMUNITY OF	WYOMING	1	5	SW	4,410
WV3305517	PINEVILLE MUNICIPAL	WYOMING	1	5	SW	2,945

Appendix C
Public Water System Supply Study Commission
Work Group Membership

Work Group 1

(A review and assessment of the effectiveness and quality of information contained in updated Source Water Protection Plans required for certain public water systems by the provisions of sections nine-c, article one, chapter sixteen of this code)

Chair

Rahul Gupta, MD, MPH, FACP
Commissioner and State Health Officer
Bureau for Public Health

Walt Ivey *(serving as proxy for Dr. Gupta)*
Office of Environmental Health Services
Bureau for Public Health

Tim Ball
Morgantown Utility Board

Evan Hansen
West Virginia Rivers Coalition

Michael McCawley, PhD
Assistant Professor
WVU School of Public Health

Jeffrey McIntyre, President
West Virginia American Water Company

Ed Watson
Canaan Valley Institute

Work Group 2

(A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process)

Chair

Dr. Terry Polen
WV Department of Environmental Protection

Rahul Gupta, MD, MPH, FACP
Commissioner and State Health Officer
Bureau for Public Health

Walt Ivey *(serving as proxy for Dr. Gupta)*
Office of Environmental Health Services
Bureau for Public Health

Tim Ball
Morgantown Utility Board

Evan Hansen
West Virginia Rivers Coalition

Pam Nixon
Citizen Member

Amy Swann, Executive Director
WV Rural Water Association

Work Group 3

(The extent of available financing and funding alternatives which are available to existing public water systems to pursue projects which are designed to create alternate sources of supply or increased stability of supply in the event of a spill, release or contamination event which impairs the water system's primary source of supply)

Chair

Amy Swann
Executive Director
WV Rural Water Association

David L. Acord, II (Designee for Mike Albert)
Public Utilities Director
Water & Wastewater Division
WV Public Service Commission

Jeffrey McIntyre
President
West Virginia American Water Company

Rick Roberts
E. L .Robinson Engineering Company

Ed Watson
Canaan Valley Institute

Work Group 4

(A review and consideration of the recommendations of the U.S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer Crop Science incident of 2008)

Chair

Michael McCawley, PhD
Assistant Professor
WVU School of Public Health

Pam Nixon
Citizen Member

Dr. Terry Polen (designee)
WV Department of Environmental Protection

Rebecca McPhail, President
West Virginia Manufacturers Association

Ed Watson
Canaan Valley Institute

Work Group 5

(Any recommendations or suggestions the study commission may offer to improve the infrastructure of existing public water systems, to provide safe and reliable sources of supplies and to pursue other measures designed to protect the integrity of public water services)

Chair
David L. Acord, II
Public Utilities Director
Water & Wastewater Division
Public Service Commission of WV

Tim Ball
Morgantown Utility Board

Jeffrey McIntyre
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Appendix D

PWSSSC Work Group 1 Recommended revisions to §22-30-14
December 4, 2015

§22-30-14. Public access to information.

(a) The public shall have access to all documents and information submitted to the department pursuant to this article, subject to the limitations contained in the state Freedom of Information Act, article one, chapter twenty-nine-b of this code, or any information designated by the Division of Homeland Security and Emergency Management as restricted from public release pursuant to subsection (c) of this section. Trade secrets, proprietary business information and information designated by the Division of Homeland Security and Emergency Management as restricted from public release pursuant to subsection (c) of this section shall be secured and safeguarded by the department. Such information or data shall not be disclosed to the public or to any firm, individual or agency other than officials or authorized employees or representatives of a state, ~~or~~ federal, or local agency implementing the provisions of this article or any other applicable law related to releases of fluid from aboveground storage tanks that impact the state's water resources or related to source water protection planning. Any person who violates the provisions of this section ~~makes any unauthorized disclosure of such confidential information or data~~ is guilty of a misdemeanor and, upon conviction thereof, may be fined not more than $1,000 or confined in a regional jail facility for not more than twenty days, or both.

(b) ~~A list of the potential sources of significant contamination contained within the zone of critical concern or zone of peripheral concern as provided by the Bureau for Public Health, working in conjunction with the department and the Division of Homeland Security and Emergency Management may only be disclosed to the extent consistent with the protection of trade secrets, confidential business information and information designated by the Division of Homeland Security and Emergency Management as described above.~~ The exact location ~~of the contaminants~~, size, and substances stored in aboveground storage tanks within the zone of critical concern or zone of peripheral concern is not subject to public disclosure in response to a Freedom of Information Act request under article one, chapter twenty-nine-b of this code. However, the exact

location, size, and substances stored in aboveground storage tanks ~~location, characteristics and approximate quantities of potential sources of significant contamination~~ within the zone of critical concern or zone of peripheral concern shall be made known to one or more designees of the public water utility, and shall be maintained in a confidential manner by the public water utility. In the event of a release to waters of the state that could affect a public water supply, information about the release shall be promptly made available to any emergency responders responding to the site of a spill or release and the general public shall be promptly notified in the event of a chemical spill, release or related emergency by the Director of Homeland Security and Emergency Management.

(c) The Director of Homeland Security and Emergency Management may promulgate emergency rules and shall propose legislative rules, pursuant to article three, chapter twenty-nine-a of this code to effectuate the provisions of this section. However, these rules cannot restrict public access to information that is already subject to public disclosure under any other state or federal statute, including but not limited to the federal Clean Water Act, Surface Mining Control and Reclamation Act, Resource Conservation and Recovery Act, and their state counterparts.

Appendix E

Report from Work Group 2

Work Group 2 of the Public Water System Supply Study Commission was tasked with answering this question. To that end, the committee used the following to break the overall question into pieces to attempt to attain consensus regarding the question asked:

A review and assessment of the effectiveness of the legislation enacted during the 2014 Regular Session of the West Virginia Legislature, as it pertains to assisting public water systems in identifying and reacting or responding to the identified potential sources of significant contamination and increasing public awareness and public participation in the emergency planning and response process.

Members:
Dr. Terry Polen (Chair)
Tim Ball
Walt Ivey (proxy for Dr. Rahul Gupta*)*
Evan Hansen
Pam Nixon
Amy Swann

a) We are asked to review and assess the 2014 legislation (SB373). However, because the legislature passed significant modifications to the 2014 legislation during the 2015 Regular Session (SB423), and because of proposals already submitted for consideration by the 2016 Legislature, should we broaden our scope to include consideration of SB423 and the 2016 proposals?
b) In what way(s) can we/should we indicate to the legislature the effectiveness (or lack thereof) of the current/future processes
    I. Are there quantitative methods that can be brought to bear?
    II. How do we even define 'effectiveness'?
c) Does the 2014/2015 legislation help the public water supply systems to ID/react/respond to issues? [if not, why not, and how can we propose to fix it?]
    d) Does the 2014/2015 legislation help the public awareness and participation? [if not, why not, and how can we propose to fix it?]

The management guru Peter Drucker once noted that effectiveness and efficiency are divergent terms by his phrase: "Efficiency is doing things right; effectiveness is doing the right things." (Drucker, Peter F., *The Effective Executive*. London: Heinemann Studies in Management, 1967). In light of Drucker's guidance, the committee considered both the "effectiveness" and "efficiency," 'are we doing things right?' and 'are we doing the right things?' in an attempt to answer the question.

Early in the committee review of SB373, it was determined that it would be of little value to limit the consideration to that within the assigned questions, therefore SB423 was amended into the topic.

Consideration of each of the above topics included background analysis, including that delineated below:

The Aboveground Storage Tank (AST) Acts (SB373 and SB423) have made considerable changes to the regulatory landscape of the state and certain organizations. The following is a consideration of those impacts that was used within the consideration of the committee.

On January 9, 2014, the DEP investigated citizen reports of a licorice smell. The investigation revealed that more than 10,000 gallons of crude methylcyclohexane methanol (MCHM) had spilled into the Elk River from the Freedom Industries tank site. Eventually, the Governor declared a state of emergency for nine (9) counties affected by the spill:

Kanawha
Putnam
Boone
Jackson
Lincoln
Roane
Clay
Logan
Cabell

A 'Do Not Use' ban was issued for approximately 93,000 West Virginia American Water customers affecting approximately 300,000 people. Schools and restaurants within the impacted area were ordered closed.

The aftermath of the spill resulted in SB373, which was passed unanimously. The bill took effect on June 6, 2014. The DEP developed a website, created guidance, and began tank registration under the auspices of this bill with the Electronic Submittal System. Registration began on June 10, 2014, and by September 1, 2014, all NPDES individual permit holders and NPDES general permit holders within the zone of critical concern (ZCC) (22-30-4) were required to have applied. All tanks were to be registered by October 1, 2014 and the Spill Prevention Response Plans required by SB373 had to be submitted by December 3, 2014. The inspections of said tanks with their incumbent certification were required to be completed by a qualified person by January 1, 2015 (22-30-6).

In 2015, the Legislature passed SB423 which substantially modified the 2014 AST Act. The legislation was signed by the Governor on March 27, 2015. This bill substantially modified the regulatory scheme. For example, while aboveground storage tanks were still defined as 1,320 gallons or greater, certain tanks were excluded from the regulation including: water tanks, mobile tanks (365 vs. 60 days), shipping containers, boats, pools, process vessels, food, empty tanks in inventory, pipelines, and transformers. The term 'first point of isolation' was defined, as well as the term 'process vessel'. Tank levels were created/established. Level One tanks are those located within a Zone of Critical Concern (ZCC), contain a listed hazardous substance, or have a capacity of 50,000 gallons or more, regardless of location or contents. Level Two tanks are those located within a Zone of Peripheral Concern (ZPC) that are not Level One tanks.

Other definitional changes included a release into the water of the state or out of secondary containment and the creation of a ZPC (10-hour-time-of-travel of water to an intake, an additional 5-hour-time-of-travel beyond the ZCC).

There is now a tiered approach to the regulatory structure of tanks within the state, along with various annual operation fees. Also, requirements pertaining to the management and control of tanks may be incorporated into individual or site specific permits or plans issued or approved under other regulatory programs administered by DEP. Examples include individual NPDES permits or Groundwater Protection Plan (GPP).

Each regulated tank must be inspected according to a frequency of inspections established by legislative rule. Additionally, Spill Prevention Response Plans (SPRP) that are now updated every 5 years instead of every 3 years as previously required by SB373. Also in lieu of developing a SPRP, a tank owner may certify that it is subject to a Groundwater Protection Plan (GPP) or Spill Prevention Response Plan (SPCC). The SPCC program is regulated under federal law.

Section 22-30-10 requires certain notice to local governments and water companies under SB373 by the owner or operator of a regulated AST. This entity must supply the type and quantity of material stored to the water company. This has limitations that need to be examined in relation to not only trade secrets, but also to restricted information under the purview of Homeland Security. Public access to information is an issue that needs robust consideration in that release of certain information may be subject to fines of $5,000. To this end, this workgroup concurs with the recommendations of workgroup one contained in Appendix A of this document. The list of potential sources of significant contamination is being compiled and maintained by the WV Bureau of Public Health in conjunction with the WV Department of Environmental Protection, and the WV Division of Homeland Security, and is being provided to water utilities for review and refinement, and for inclusion in Source Water Protection Plans.

As of March 2015, 51,201 tanks had been registered with the majority being Crude Oil tanks (13,121), and Brine, Oil and Gas tanks (10,381). Kanawha County registered the greatest number of tanks with 8,660, with Lewis and Wyoming Counties trailing in the count substantially (4,151 and 3,187 respectively).

Tank size varied considerably with the largest tank in the state being a Natural Gas Condensates tank registered at greater than 9.2 million gallons. The next four tanks were greater than 6 million gallons each and consisted of two in Wayne County (Number 2 Fuel Oil) and two in Brooke County (Natural Gas Condensates). Interestingly enough, the oldest tanks that were still in service are more than 100 years old. 5 tanks were built in the 1800's with the oldest being built in 1888. All 5 of these tanks are crude oil tanks and are 4200 gallons in size. Only 388 of the tanks are greater than 75 years old with the majority (36481) being less than 30 years old

As for tanks that reside within the Zone of Critical Concern, 509 are in Marshall County, 272 are in Hancock County, 251 and 249 reside in Brooke and Logan County respectively. Most of the tanks are less than 10,000 gallons (40,796), 5652 are between 10,000 and 50,000 gallons, and 2262 tanks are greater than 50,000 gallons.

As of this report, there are 126 public water utilities within the State of West Virginia that are, or may be, impacted by this legislation. For example, the code of state rule, 64-3 added additional water source components that became effective on April 15, 2015.

- The are 126 public water systems that are required to update their SWPP
- 126 public water systems have started updating their SWPP,
- As of December 1, 2015, 2 have completed their SWPP and submitted it to BPH for approval
- As of December 15, 2015, no SWPP's have received final approval.
- DHHR/BPH, through Regional Planning and Development Councils, has provided funding for 115 public water systems to assist with updating their SWPP. The total amount provided is approximately $2.2 million.
- DHHR/BPH has provided 126 public water systems its suggested list of Potential Sources of Significant Contamination, as required by the law.
- The number and type of raw water contamination events since SB373 and SB423 were enacted. Numerous spill events (some major/some minor) have occurred within West Virginia during this time period as reported by the DEP spill reports and then forwarded to the water utilities. At this time BPH does not have a process to track these incidents. Since DHSEM is the recipient of the initial spill report, tracking of spills of all nature would best be accomplished by that organization.

- Any situation where a water system was required to shut down their intake with brief summaries of the nature of the situation and whether planning instituted since the legislation has been valuable.

No systems were required to shut down their intakes. Situations when water systems shut down their intake as a precautionary measure include: Ohio River systems for harmful algal blooms; Potomac River systems due to latex spill; Kanawha River systems due to Bakken crude oil spill; and Greenbrier River systems due to a spill originating from a tractor trailer diesel fuel spill.

American Petroleum Institute (API) and Steel Tank Institute (STI) inspection requirements where incorporated into the 2015 legislation SB423. These national standards should help to ameliorate or even eliminate an issue prior to it becoming a problem. A conclusion regarding the actual effectiveness and efficiency of these requirements is not feasible with the data available, but the committee is confident that this is a large step in the right direction.

The review and assessment was broken into components as noted previously. Therefore, the following is offered in response to the separated questions, with conclusions below:

- We are asked to review and assess the 2014 AST legislation. With significant modifications passed in 2015 and proposals already submitted for the 2016 legislative session, should we broaden our scope to include AST law which currently applies to tank owners, as well as proposed law which will likely apply to tanks in 2016.
- As previously noted, it was the general consensus of the group that consideration should be expanded to include the current law, SB423(2015 legislation). It was noted that "It would seemingly be a waste of time and energy to focus on legislation no longer in effect."
- Due to the shifting considerations, the 2016 proposed changes were considered, but an understanding that that legislature may significantly change or ignore any proposal, limited emphasis were placed on these proposals.
- The consensus is that we should look at the existing and proposed legislation (Statutes and Legislative Rules). To that end:

1) SB373: http://www.dep.wv.gov/WWE/abovegroundstoragetanks/Documents/FINALSB373-The%20TankBill.pdf

2) SB423: http://www.dep.wv.gov/WWE/abovegroundstoragetanks/Documents/SB423.pdf

b) In what way(s) can we/should we indicate to the legislature the effectiveness (or lack thereof) of the current/future processes

a. Are there quantitative methods that can be brought to bear?

- Even though it still may be too early to accurately assess the impacts of the rules, the above referenced quantitative measures appear to be valuable. It is with these measures that future commissions will be able to accurately assess the effectiveness and efficiency of the work completed by all entities.

b. How do we even define 'effectiveness'?

- It is believed that water systems throughout the state are moving forward expeditiously to create programs with the required elements and that they are using the public input obtained from a variety of venues to assist in this process.

- As noted elsewhere, the confidentiality restrictions need to be investigated. Some with the workgroup feel that information that is held by the state could be used by the utilities to assist in their planning process. To that end, the workgroup again wishes to concur with the recommendations of workgroup one as contained in Appendix A.

- Water systems commit to a reasonable number of strategies in their Management Plans, and BPH institutes a system to monitor progress toward implementing these strategies.

- There also remains concern that the lack of funding will prevent the implementation of many of the needed improvements and that the overall effectiveness and efficiency is simply stated in: 'does the legislation protect the water supply'. It may be too early to make this determination, but positive legislation protecting the water supply remains critically important (as noted additionally below).

c) Does the 2014/2015 legislation help the public water supply systems to ID/react/respond to issues? [if not, why not, and how can we propose to fix it?]

- The changes made by SB423 regarding restricted information have been impacting the development of SWPPs. It has created difficulty in obtaining the needed answers. Specific examples would be of great benefit to those involved, and clarity of information and sensitivity and confidentiality will greatly assist this process. Because state and federal law may be in conflict in this instance, a workable solution is needed. To this end, the workgroup concurs with the recommendations of workgroup 3 contained in Appendix B.

- ❖ The proposed AST legislative rule, 64CSR3, nullifies requirements of notification to downstream water utilities of confirmed releases and of the entity's Spill Prevention and Response Plans (or other spill prevention requirements) to downstream water utilities. Situationally appropriate access to protect the water supply would be prudent.

- ❖ There has been consternation and concern that the original PWSSSC report was not afforded the proper hearing. It is strongly recommended that the current and past reports be used to craft future legislation. One member noted: "SB423 (from 2015) compounded the above by reducing both the number of regulated PSCS operators and the requirements on them, yet that bill left requirements on the public water suppliers unchanged. So, utilities are still expected to meet the original standards, but now with less resources and cooperation. That legislation was apparently enacted without input from the PWSSSC, or reliance upon its previous recommendations."

d) Does the 2014/2015 legislation help public awareness and participation? [if not, why not, and how can we propose to fix it?]

- ❖ It is believed that public awareness and participation would benefit significantly if the recommendations of the PWSSSC were received and deliberated by the Legislature in public hearings. However, it should be noted that many water utilities have limited funds within their budgets for public education and communication. To build on the earlier points regarding information exchange and confidentiality, it is believed that a process whereby certain within the utilities be tasked with holding the information confidential, while still allowing certain critical individuals the access that they need. This includes notifications by both the operators and the agencies to the utilities. While it seems that the legislation is working toward its' intended consequences, it is too early to conclude that the effectiveness and efficiency of the legislative actions are sufficient to attain the goals and vision of the state and the stakeholders.

For example: processes in place look to be of assistance to the 134 groundwater systems within the state. The DHHR is currently considering if they fall under protection plan requirements. This decision, and the implementation thereof, has the potential to impact the considerations and proposals of the subcommittee. With roughly 12,011 individual points of emission, the groundwater impact has the potential to be positively synergistic regarding the public water supply systems.

The difficulty in creating a specific list of all potential contaminants leads the subcommittee to consider the larger protection mechanisms to be critical. Additionally, the training and spill workshops that are being held throughout the state offer great hope in not only helping entities to comply, but to keep the waters of the state safe for all potential uses.

Again, while the dynamic process of legislative creation fashions a moving target, especially as it relates to the effectiveness and efficiency determination, the current state of rules and policy offer continued belief that issues such as the Freedom Industry spill will never again cause the impact and distress that permeated the Kanawha Valley. This assumes that a positive path forward is continued.

Respectfully submitted:

Public Water System Supply Study Commission

Appendix F

PWSSSC Work Group 3 Recommended revisions to §16-1-9c

Amend W.Va. Code 16-1-9c to include a new subsection designated as subsection (i) to read as follows:

The Secretary is authorized to propose legislative rules for promulgation pursuant to article three, chapter twenty-nine-A of the Code to implement the provisions of this section that may include a schedule for the submission of Source Water Protection Plans by public water utilities pursuant to subsection (f) that staggers the schedule for the submission of Source Water Protection Plans, except that for the purpose of staggering the dates of submission of updated Source Water Protection Plans, the Secretary may designate a schedule of submission greater than three years from the initial submission required by a legislative rule promulgated pursuant to this subsection.

Appendix G

WEST VIRGINIA CHEMICAL RELEASE PREVENTION PROGRAM

Contents

PROGRAM OUTLINE:

1. PROGRAM STRUCTURE
2. DEFINITIONS OF COVERED CHEMICAL FACILITIES AND CHARACTERISTICS
   - Covered chemical facilities
   - Facility characteristics
   - NOTES:
3. PROGRAM PROCESSES
   - PROGRAM 1 CRITERIA
   - PROGRAM 2 CRITERIA
   - PROGRAM 3 CRITERIA
   - PROGRAM OUTSTANDING QUESTIONS
4. PROGRAM ORGANIZATION / 5. ROLES AND RESPONSIBILITIES
   - INTERAGENCY WORKING TEAM
   - ADVISORY TEAM
6. PROJECT TIMELINE
   - PHASE 1 – COMPLETE
   - PHASE 2 – PROGRAM DEVELOPMENT
   - PHASE 3 – IMPLEMENTATION
   - PHASE 4 – STATEWIDE EXPANSION
7. FEE SYSTEM
8. APPLICABLE LOCAL, STATE AND NATIONAL LAWS
9. LEGISLATIVE CHANGES NEEDED TO CARRY OUT THE PROGRAM

1. PROGRAM STRUCTURE

- Develop Guidance Documents for facilities
- Risk Management Plan and Safety Plan Review developed by facilities
- Conduct Facility Audit/Inspections
    - Unannounced inspections of the regulated businesses are required at least once every three years to ensure that the facilities have the required programs in place and are implementing the programs.
    - Embeds employee participation.
- Perform incident investigation and root cause analysis

- Issue public reports on audits and plan reviews
- Hold public meetings and perform public outreach
- Public Participation
    - A 45-day public comment period and public meetings for the completed Safety Plans and preliminary CRPP audit findings.
    - All written comments will be taken into consideration. Changers will be made, when appropriate, in either the Risk Management or Safety Plans or in the audit findings.
    - CRPP will respond to all written comments in writing.
    - Comprehensive website:
        - Guidance documents
        - Interactive mapping of facilities and audit summaries
        - Meeting notices
        - Regulatory framework
        - Comprehensive incident database
        - Plans
        - FAQs
    - CRPP will hold public meetings:
        - after a Major Chemical Accident or a Release
        - where there is a public concern
        - on each Safety Plan and Audit of Industrial Safety Ordinance facilities
    - Scheduled document review available at CRPP office.
    - Plans and Audit findings available at specified libraries.
    - Annual report summaries:
        - Audits conducted
        - Public participation
        - Major incidents (if any)
        - Status of investigations
        - ISS implemented
        - Penalties/enforced
        - Fees
    - Citizen will hold representative seat on Chemical Release Prevention Commission
    - Public comment will inform risk scoring

2. DEFINITIONS OF COVERED CHEMICAL FACILITIES AND CHARACTERISTICS

Covered chemical facilities

- RMP & PSM facilities
- MCHM-like facilities - chemicals that pose hazard or risk but may not be classified as such* (i.e. Tier II reporting facilities)
- Mobilie sources including but not limited to truck, rail, barges, pipelines*
- Cracking facilities*
- Oil and gas separating facilities*

**further analysis is needed to understand the scope of integrating these facilities into the program and to clarify quantities and thresholds*

Facility characteristics

- Volatile substances
- Utilize RCRA(c) guidance
    - Ignitability
    - Corrosivity
    - Reactivity
    - Toxicity
- Facilities and/or other chemical threats close to vulnerable populations (e.g. schools, nursing homes, hospitals, communities)
- Hazards are to be identified in a comprehensive way -- quantities, proximity to vulnerabilities and toxicity and route of entry are to be considered

NOTES:

- Where toxicity is "unknown", risk should be assumed unless otherwise identified
- We need a full account of the true contents of "what's in the tank"...such as with MCHM that actually turned out to have many different chemicals blended together

3. PROGRAM PROCESSES

PROGRAM 1 CRITERIA

** INDICATES PART OF RMP OR PSM*

1. Processes that contain a regulated material above the State or Federal threshold, but under a worst-case release scenario as defined, would not result in impacting the public and has had no accidents with specific offsite consequences occur within the past five years.
2. Facilities with operations that are subject to the Chemical Release Prevention Program because of a Program 1 process are required to develop, implement, and maintain the following:

a. Hazard Assessment*
b. Worst-Case Scenario*
c. Five-year accident history*
d. Emergency Response Program*

PROGRAM 2 CRITERIA

1. Processes not eligible for Program 1 or subject to Program 3 are placed in Program 2.
2. Facilities with operations that are subject to the Chemical Release Prevention Program because of a Program 2 process are required to develop, implement, and maintain the following:
    a. Hazard Assessment, including the following:
        i. Worst-Case Scenario(s)
        ii. Alternative Release Scenarios (more likely to occur)
        iii. Five-Year Accident History
    b. Prevention Programs, including the following:
        i. Safety Information*
        ii. Hazard Review*
        iii. Operating Procedures*
        iv. Training*
        v. Maintenance*
        vi. Incident Investigations*
        vii. Compliance Audits
        viii. Management System (that oversees the prevention elements)*
    c. Emergency Response Program*

PROGRAM 3 CRITERIA

1. The whole facility is covered, not just process(es) that have a regulated substance over a threshold quantity.
2. Processes not eligible for Program 1 and either subject to OSHA's Process Safety Management standard under Federal or West Virginia OSHA programs or described by one of the ten specified North American Industrial Classifications Standards (NAICS) codes (primarily related to petroleum refining or chemical manufacturing).
3. Processes at a facility that handle a listed chemical above a specified quantity are subject to the Chemical Release Prevention Program. Facilities with operations that are subject to the CRPP because of a Program 3 process are required to develop, implement and maintain the following:
    a. Submittal of a Safety Plan (public document)

b. Submittal of Risk Management Plan including Off-Site Consequences Analysis (public document)*
c. Hazard Assessment, including the following:
    i. Worst-Case Scenario(s)*
    ii. Alternative Release Scenarios (more likely to occur)*
    iii. Five-Year Accident History*
a. Emergency Response Program*

4. Prevention Programs, including the following:
    a. Process Safety Information
    b. Process Hazard Analysis*
    c. Operating Procedures*
    d. Training*
    e. Mechanical Integrity*
    f. Incident Investigations*
    g. Management of Change*
    h. Pre-startup Safety Reviews*
    i. Compliance Audits*
    j. Employee Participation*
    k. Contractors*
    l. Hot Work Permits*
    m. Management System (that oversees the prevention elements)*
    n. Human Factors Program
    o. Management of Organizational Changes
    p. Inherently Safer Design Analysis
        i. MOC when major change occurs
        ii. Part of incident investigation
        iii. All process units at least every 5 years
        iv. Feasibility determination
        v. Layer of Protection Analysis
    q. Root Cause Analysis Investigations
    r. Safety Culture Assessments
    s. Safeguard Protection Analysis
    t. Process Safety Performance Indicators
    u. External events analysis

PROGRAM OUTSTANDING QUESTIONS

- Community Vulnerability Analysis needs added into this section – see public input action tracking for guidance.
- Other outstanding questions will be addressed in Phase 2.

4. PROGRAM ORGANIZATION / 5. ROLES AND RESPONSIBILITIES

A Chemical Release Prevention Commission shall be established with the purpose of the Commission is to develop overall policy recommendations for and serve in an advisory role to the Chemical Release Prevention Program. The Commission shall consist of an Interagency Working Team and an Advisory Team, whose make up shall comprise of the following:

INTERAGENCY WORKING TEAM

1. State Department of Environmental Protection
2. Kanawha-Charleston Health Department
3. State Bureau for Public Health
4. County Emergency Management
5. State Department of Homeland Security & Emergency Management
6. State Department of Labor / Occupational Safety & Health Administration

ADVISORY TEAM

1. Engineer
2. Toxicologist
3. Epidemiologist
4. Academic
5. Medical Doctor
6. Citizen
7. Ombudsperson*

*An Ombudsperson shall be appointed 1) To serve as a single point of contact for the public regarding the CRPP; 2) To investigate concerns and complaints about the CRPP, facilitate their resolution, and assist people in gathering information about programs, procedures, or issues; and 3) To provide technical assistance to the public.

The Kanawha-Charleston Health Department (KCHD) shall administer the Chemical Release Prevention Program which will consist of a technical/engineering team of facility auditors and inspectors and an administrative staff. Additionally, it will be the role of KCHD to ensure public participation as outlined in the program structure and secure funding for the program.

Regulated facilities and the public including small businesses and individual citizens shall be considered essential stakeholders of the program. Facilities shall be tasked to provide right-of-entry to auditors/investigators and submit safety plans as outlined, and the public will provide input on hazard scoring and general policy recommendations.

6. PROJECT TIMELINE

PHASE 1 – *COMPLETE*

PHASE 2 – PROGRAM DEVELOPMENT

Timeline: July 1, 2015 – June 30, 2016

- Obtain necessary legal authorizations**
- Technical synthesis
    - Further develop program processes
    - Further develop funding strategy and fee structure
- Policy analysis
- Program guidance
- Pollution prevention cost modeling

Resources needed:

- Industry expertise
- Policy analyst
- Funding to continue team coordination and convening
- Chemical Safety Board review of roadmap

***Guidance from U.S. Chemical Safety Board regarding program authority:*

> ***"The West Virginia Code Chapter 16, Public Health, charges the state public health agency with providing "Essential public health services [§16-1-1]" i.e., activities necessary to promote health and prevent disease, injury and disability for the citizens of the state." The code authorizes the commissioner of the bureau for public health "To make inspections, conduct hearings, and to enforce the legislative rules concerning occupational and industrial health hazards [§16-1-6 (n)]." The Secretary of the state department of health and human resources may also propose Fees for services provided by the Bureau for Public Health [§16-1-4 (b)(8)]."***
>
> ***If the West Virginia Department of Health and Human Services were to implement a program similar to the California safety ordinance, it would likely improve stakeholder participation and awareness, and improve emergency planning and accident prevention."[12]***

1

PHASE 3 – IMPLEMENTATION

Timeline: Begin July 2016.

PHASE 4 – STATEWIDE EXPANSION

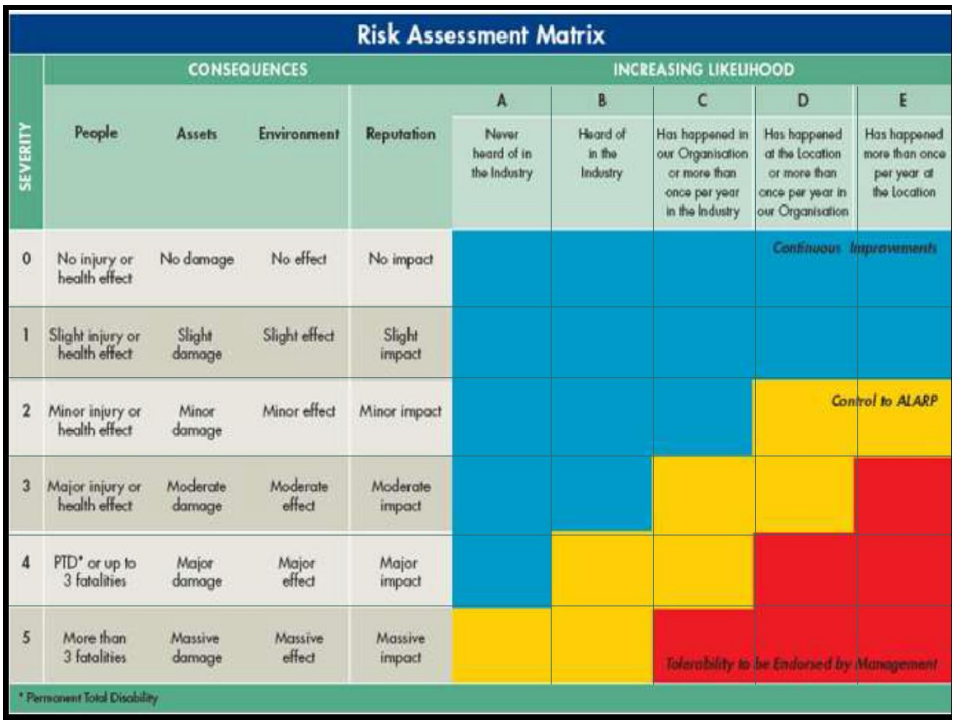
To be determined.

[2] [Emphasis added] Pesticide Chemical Runaway Reaction Pressure Vessel Explosion. (2011, January). U.S. Chemical Safety and Hazard Investigation Board. Retrieved May 14, 2015, from http://www.csb.gov/assets/1/19/Bayer_Report_Final.pdf.

7. FEE SYSTEM

- Self-sustained following upstart
- Performance-based
    - Incentive for companies with good practice
    - "Discount" for risk minimization
- Risk-based
    - Based on risk-matrix
    - Reassessment as events occur
    - Stakeholders decide/inform risk

Figure 1.



8. APPLICABLE LOCAL, STATE AND NATIONAL LAWS[3]

FEDERAL

- EPA Risk Management Program 1996
- OSHA Process Safety Management 1992

STATE:

- Aboveground Storage Tank Act

§22-31-12. Public Water System Supply Study Commission: (4) A review and consideration of the recommendations of the U. S. Chemical Safety and Hazard and Investigation Board after its investigation of the Bayer CropScience incident of 2008;

LOCAL: ?

9. LEGISLATIVE CHANGES NEEDED TO CARRY OUT THE PROGRAM

- Create rule granting authority to establish WV Chemical Release Prevention Program
    - Ensure right-of-entry
- Other(s) identified in Phase 2

[3] needs further analysis

ROADMAP PROCESS

GOALS:

1. Enhance the prevention of incidental chemical releases and optimize responses in the event of their occurrence
2. Mitigate factors that have the potential to degrade human health and the environment
3. Develop a Chemical Release Prevention Program in Kanawha Valley that can be modeled statewide

TIMELINE

- MEETING 1: October 24, 2014 – Project Overview
- MEETING 2: November 14, 2014 - New Jersey Toxic Catastrophic Prevention Act
- MEETING 3: January 23 & 24, 2015 – Contra Costa Co. Industrial Safety Ordinance
- MEETING 4: February 20, 2015 – Covered Facilities/Characteristics for WV
- MEETING 5: March 20, 2015 - European Water Framework Directive
- MEETING 6: April 24, 2015 - Working meeting
- MEETING 7: May 15, 2015 - Public hearing
- MEETING 8: June 26, 2015 - Final Recommendations

CONVENERS

People Concerned About Chemical Safety are non-profit community organization based in Kanawha Valley dedicated to developing solutions that prevent chemical disasters and protect our West Virginia communities.

PLANNING TEAM

Task:

Identify national best practices and garner public input among stakeholder groups in the development of a roadmap outlining what a Chemical Release Prevention Program should look like for the Kanawha Valley

Members and Participants

- Dr. Michelle Foster – CEO, Kanawha Institute for Social Research and Action, former Union Carbide Chemical Engineer
- Walt Ivey** - Director Environmental Health Services, WV Department of Health & Human Resources/Bureau for Public Health
- Dr. Bill Kroesser - Program Coordinator for Chemical Process Operations, Applied Process Technology Faculty, Bridge Valley Technical College

- Dr. Mike McCawley* - Interim Chair, WVU Department of Occupational & Environmental Health Sciences, former Public Health Service Officer with the Centers for Disease Control and Prevention (CDC) at the National Institute for Occupational Safety and Health (NIOSH),
- Pam Nixon, MEnvSc* – Citizen and Environmental Advocate, Citizen Representative, member Kanawha Putnam Emergency Planning Committee
- Dr. Terry Polen*– Ombudsman, WV Department of Environmental Protection
- C.W. Sigman** - Deputy Director/Fire Coordinator, Kanawha County Homeland Security and Emergency Management, represented Kanawha Putnam Emergency Planning Committee for Larry Zuspan, Administrator
- Josh Sword – Secretary/Treasurer, AFL-CIO, West Virginia
- Eric Tissenbaum** - Independent Living Advocacy/ Skills Training Specialist, Appalachian Center for Independent Living Inc. / Kanawha Putnam Emergency Planning Committee Training Chair
- Tony Turner** – Director Indoor Air Quality, WV Department of Health & Human Resources/Bureau for Public Health
- Nasandra Wright, MPH, R.E.H.S, RS** - Environmental Health Director, Kanawha-Charleston Health Department

Invitations for participation were extended to:

- Jim Covington, Plant Manager, BayerCropScience, Institute Facility (*declined participation)*
- Tyler London, Plant Manager, Dow Chemical, South Charleston Facility (no response)
- Mark Nunley, MS, Senior Process Engineer for MATRIC, Director of National Institute for Chemical Studies (*declined participation)*
- Jim O'Connor, Plant Manager, DuPont, Belle Facility (*declined participation)*
- Timothy Byrd, Plant Manager, DuPont, Belle Facility (*declined participation)*
- Angela Wilson -- Industrial Hygienist, Occupational Safety and Health Administration Consultation (*provide consultation assistance)*
- Larry Zuspan, Administrator, Kanawha Putnam Emergency Planning Committee (*deferred representation to CW Sigman)*
- *member Public Water Service Supply Study Commission*
- ***member multi-disciplinary Rapid Response Team during Elk River chemical leak*

ACTIVITIES

- Chemical Release Prevention Program (CRPP) Roadmap planning meetings
    - Monthly since October 2014
- Collect and utilize public input on CRPP planning process
    - Online, mail, surveys, working groups, public input each meeting, synthesis
- Educate public, private and governmental sectors on best practices in chemical safety and security and release prevention

- Monthly meeting – model program presentations
    - Chemical Safety Board recommendation overview
    - NJ Toxic Catastrophic Prevention Act (Komosinsky)
    - European Water Framework Directive (McCawley)
- Jan. 2015 - Summit on Chemical Safety in West Virginia
    - Vulnerable populations
        - Children/Pregnant women (Paulson)
        - Minority and income disparities (Roberts & Shafiei)
    - Contra Costa County Industrial Safety Ordinance
        - Program overview (Sawyer)
        - Community perspective (Clark)
        - Worker/community engagement (Bravo)
    - Update on Freedom Industries testing (Whelton)
- Develop draft Roadmap for public input
    - May 15th meeting
- Provide final draft for implementation
    - June 19th meeting