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WEST VALLEY DEMONSTRATION PROJECT SOURCE WATER PROTECTION PLAN

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CH2M HILL BWXT West Valley, LLC 10282 Rock Springs Road West Valley, New York USA 14171-9799

WV-1816, Rev. 8

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Attachment B	Storage Facilities in WVDP Drinking Water Well Source Area
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1.0 INTRODUCTION

In 2014, the West Valley Demonstration Project (WVDP) converted its water supply from a surface water source to a groundwater source. The groundwater source is provided by two separate bedrock wells. The groundwater supply wells are located approximately 700 feet to the southwest of the Main Plant Processing Building (MPPB). These two groundwater supply wells provide the site's water needs for utility water and potable water. Surface waters from two earthen dam reservoirs are utilized for flow augmentation during wastewater discharges from Lagoon 3. Approval for the groundwater source system from the Cattaraugus County Health Department (CCHD) was received on September 18, 2014 and included a request for a Source Water Protection Plan due to concerns that the groundwater supply wells could potentially be impacted by radiological contamination that historically originated from the MPPB at the WVDP.

2.0 PLAN OBJECTIVE

This plan provides a mechanism for source water monitoring and for evaluation and protection for the WVDP drinking water system. This plan includes strategic evaluation of potential sources of contamination, review of the risk of impact to the groundwater supply wells and plans for continued monitoring as a means to detect potential contamination prior to and during well operations.

3.0 GENERAL INFORMATION

System Name: West Valley Demonstration Project Public Water System

Federal ID #: NY0417557

System Location: 10282 Rock Springs Road West Valley, NY 14171 Town of Ashford

Telephone: (716) 942-4330 (Security)

Primary Contact:	Steve McPeak (CH2M HILL BWXT, West Valley, LLC [CHBWV], <u>Operator in Responsible Charge</u> (716) 942-4925
Secondary Contacts:	Bryan C. Bower (U.S. Department of Energy) (716) 942-4368 David P. Klenk (CHBWV) (716) 942-2639
Certified Operators:	Steven E. McPeak, NY0034658 [C/D & Distribution] Mark Trowbridge, NY0034661 [C/D & Distribution]
	Adam Morgan, NY0041437 [C/D & Distribution] Kirby Perry, NY0041438 [C/D & Distribution] Timothy Ploetz, NY0041439 [C/D & Distribution] David Smith, NY0041441 [C/D & Distribution] Rhonda Brown, NY0042107 [C/D & Distribution] William C. Sundeen III, NY0042111 [C/D & Distribution]

System Type: Non-Transient Non-Community System

Population Served: < 500

Water Source: Groundwater

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Water Production Zone: Bedrock

Number of Wells: 2

Well #1 [WNDWELL1 / Sampled at WNDRAW1] Well #2 [WNDWELL2 / Sampled at WNDRAW2]

Water Usage:

- Utility Water/Fire Water (Tank 32-D-1): approximate capacity, 500,000 gallons
- Hydropneumatic pressure system Potable Water / Distribution System: usage approximately 50,000 gallons/month

Year Drilled: 2014

Driller Name: Ehmke Well Drilling

Well Depth: Well #1 - 115 feet Well #2 - 110 feet

Well Casing: 8" diameter, ground surface to 45.75-foot depth

Well Locations:	Well #1	42°	26'	53.5"N	78°	39'	16.7" W
	Well #2	42°	26'	53.7"N	78°	39'	18.2" W

Well Construction: ANSI carbon steel casing

Treated drinking water is maintained by use of a pressure actuator system. The drinking water portion of the system has primacy during operation.

Untreated Water Storage: 32-D-1 is a 500,000-gallon carbon steel storage tank dedicated for utility water and fire protection water.

Drinking Water Treatment: Chlorination (Sodium Hypochlorite) and Iron Sequestration (Carus 8100)

Additional well information can be found in the reference, Pumping Test Data Analysis: Water Supply Well #1 and Well #2 West Valley Demonstration Project, GEI Consultants, dated 7/31/2014

4.0 WELL BACKGROUND AND HISTORICAL INFORMATION

In 2013, the West Valley Demonstration Project (WVDP) pursued the installation of a groundwater system to replace the surface water sourced system that had been in use since the early 1960s. In 2014, at the request of the CCHD, a hydrogeologic evaluation was performed by GEI Consultants by WVDP to confirm that a proposed groundwater source for a drinking water system would not be impacted by on-site radiological contamination. The report concluded that at the proposed depths, there was little risk of groundwater contamination. The wells were installed in 2013 and pump testing was performed as well as chemical and radiological sampling was conducted in accordance with New York State Department (NYS) of Health Regulations and the Ten States Standards (incorporated by reference by the NYS Health Department Regulations). Based on the CCHD's review of the information provided, the WVDP was approved to switch - from the surface water source to the groundwater source in September 2014. At this time groundwater was approved for transfer from the wells to fill the 500,000 on-site storage tank where it is stored for use as utility water and fire water. At that time select equipment of the surface water treatment system continued to be utilized in the Utility Room (such as the chlorinator and the drinking water storage tank) for drinking water purposes.

Some of the surface water treatment equipment, such as the sand filters and the clarifier, were no longer necessary for treatment of groundwater at that time. However, due to groundwater containing high iron content, a secondary iron filtration system was installed to remove iron. The Utility Room operation continued until the new drinking water treatment system was designed, approved, built, and went on-line in February 2018. Once the new treatment building and treatment system were constructed, the CCHD performed a review of the new system and authorized its use and the treatment system in the Utility Room as no longer used. In July 2020 the Utility Room was demolished.

5.0 SYSTEM OVERVIEW

The WVDP groundwater supply well system collects source waters from two bedrock wells located to the southwest of the MPPB. The two groundwater wells are configured to support the site drinking water needs and supply water to tank 32-D-01 for utility water and fire water purposes. Water is pumped from the wells into the new treatment building. A pressure sustaining valve regulates water between the filling of tank 32-D-01 and the drinking water system needs by pressure regulation with primacy to the drinking water system demand. Alternatively, when the treatment system does not have drinking water demand, the pressure sustaining valve will direct untreated water to storage tank 32-D-01. When there is no demand for either, the well pumps automatically shut off. Drinking water is treated using a polyorthophosphate for maintaining iron in suspension and chlorinated. The chlorination system maintains contact time using four chlorine contact tanks. Three hydropneumatic tanks maintain constant pressure on the drinking water system.

The WVDP Drinking Water Monitoring Plan, WVDP-572, (Public Water System [PWS] ID#NY0417557) was developed to describe the required routine and special monitoring to ensure drinking water meets regulatory requirements. Standard Operating Procedures (SOPs), such as SOP 32-04, *Potable Water System Operation,* have been revised to describe drinking water system operations specific to the groundwater supply system.

Three previously installed bedrock wells are utilized for observation and monitoring of the drinking water aquifer: WWCOURT (135' depth), EHMKE (175' depth), and 60CT272 (156' depth). These "Sentinel" wells are monitored for water level changes as well as for radiological contamination to provide for an early indication of potential migration of radiological contamination. In addition, routine quarterly groundwater monitoring is also performed at other site monitoring wells under the *Groundwater Monitoring Plan*, WVDP-239. Water levels from sand and gravel (S&G) wells impacted by Strontium-90 (Sr-90) are reviewed for trends to evaluate potential influence from the pumping wells.

The drinking water system is maintained by CHBWV and operated by Grade C and D certified operators. The groundwater wells undergo inspection every five years by a NYS Certified Well Driller. A five-year reoccurring job card has been developed to maintain this inspection cycle.

6.0 IMPLEMENTATION STRATEGY

The regulatory required monitoring for drinking water contaminants, as well as requested additional radiological monitoring for the WVDP groundwater supply wells is identified in WVDP-572.

This *Source Water Protection Plan*, WVDP-573, includes an evaluation of potential sources of contamination. To support this evaluation, additional radiological monitoring is performed at the WWCOURT, EHMKE and 60CT272 wells. Radiological monitoring at these locations provides for early indication of the unlikely event that contamination moves into the bedrock groundwater. In addition to radiological monitoring, continuous water level indicators have been installed in WWCOURT and EHMKE to monitor drawdown at these wells during routine operation of the groundwater supply wells. Manual water levels are collected biweekly at well 60CT272 during radiological sampling. Correlations are made between pumping data (operations times and volume) and the observed drawdown of the EHMKE and WWCOURT wells. Additionally, radiological sampling is also performed at Well #1 and Well #2 monthly.

Quarterly water levels in the S&G wells are also evaluated for long term trends. This information is used to determine if there are any potential impacts from the groundwater supply wells on the radiological contamination beneath the MPPB.

The potential impacts from the radiological contamination beneath the MPPB from pumping groundwater from the groundwater supply wells was evaluated in the *Geohydrological Assessment of New Bedrock Groundwater Supply Wells West Valley Demonstration Project* report that was transmitted to the CCHD in August 2014 (GEI Consultants, 2014). This report assessed the potential for radiological contamination to be drawn down into the bedrock and impact the groundwater supply wells. The report concluded that, at the modeled maximum pumping rate, it is unlikely that radiologically contaminated waters in the shallow S&G unit would be drawn down into the deep bedrock unit by the pumping of the bedrock groundwater supply wells.

7.0 SOURCE WATER PROTECTION COMMITTEE

The WVDP Source Water Protection Committee consists of the following members:

USDOE - Regulatory Strategy and Environmental Compliance

CHBWV - Operator in Responsible Charge

CHBWV - Facility Operations Manager

The committee will be engaged for communication purposes to address source water protection actions.

8.0 DELINEATION

The two groundwater supply wells were drilled 110 to 115 feet below grade into the steep sloping bedrock composed of shale and interbedded limestones. The bedrock surface slopes (30% or greater) towards the northeast. The trough created by the bedrock slope is filled by a series of tills and recessional deposits. Due to the tight clay structure, the overlying tills function as an aquitard, limiting downward vertical flow to the bedrock. The Sr-90 plume originates in the S&G unit immediately below the surface and above the till from the MPPB and exists in a localized area well to the north of the water supply wells. The plume flows within the S&G in a northeast direction where it is intercepted and treated by a passive permeable treatment wall installed in 2010. See additional description of the plume below.

Pumping test evaluation and groundwater modeling was performed by GEI Consultants. GEI concluded that a production rate of 40 gpm (or 20 gpm per well, with concurrent well pumping) would be sustainable for long term continuous pumping (GEI Consultants, 2014). GEI also performed a geohydrological assessment of the new bedrock groundwater supply wells as noted in section 6.0.

9.0 SOURCE AREA PROTECTION

A known source (plume) of radiologically contaminated groundwater, resulting from the original Nuclear Fuel Services (NFS) operations, emanates from the MPPB and flows in a northeasterly direction. This plume is generally confined to the upper, highly permeable stratigraphic unit known as the S&G unit. Beneath the S&G unit is a less permeable unit (aquitard) known as the Lavery Till. The till is composed of tightly packed clays limiting vertical transfer of contaminated groundwater. The plume is primarily composed of soluble Sr-90 and Yttrium-90 and has been the subject of several previous evaluations. Northeast of the MPPB, an in-situ permeable treatment wall was installed in 2010 to treat the Sr-90 plume downgradient of the MPPB. Bedrock surface mapping constrained by well boring data indicates that the bedrock water supply wells are located upgradient of bedrock beneath the MPPB. However, the bedrock beneath the MPPB is overlain by the Lavery till, a fairly thick aquitard, the risk of contamination to the groundwater supply wells is low and is addressed by routine sampling and monitoring of the bedrock pumping wells, and the bedrock sentinel wells, WWCOURT, EHMKE and 60CT272, located between the MPPB and the groundwater supply wells.

Located to the east of the groundwater supply wells is the Wastewater Treatment Facility (WWTF). The WWTF is used for the management of sanitary wastewaters. There are no hazardous chemicals in the sanitary wastewaters or stored in the WWTF. Sanitary wastewaters are collected in a below-grade tank and transferred to a truck to be shipped off site for treatment and disposal. Upon activation of the groundwater supply wells, the sand filters and clarifier in the Utility Room were permanently taken out of service eliminating them as potential sources of contamination. There is low risk to the groundwater supply wells from the WWTF as it is now solely used for the temporary storage of domestic sanitary wastewaters. The WWTF is also located downgradient of the groundwater wells.

The Warehouse and the Maintenance Shop are located to the northeast, downgradient of the drinking water wells. Minor amounts of chemicals are stored in the Warehouse. The Warehouse chemical storage area is built with secondary containment within the Warehouse floor. Limited chemicals and/or hazardous materials are stored and used in the Maintenance Shop. Both facilities present a low risk to the groundwater supply wells.

Two aboveground petroleum storage tanks (ASTs), one for gasoline and one for diesel fuel, are located on the east side of the Warehouse, downgradient of the drinking water wells. Both ASTs are registered tanks and meet the requirements for secondary containment. As such, the risk to groundwater supply wells from a release at these ASTs is low.

Two abandoned crude oil lines are located underground west of the Warehouse, downgradient of the drinking water wells. These same lines were recently uncovered and required cutting during construction of the High-Level Waste Canister Storage System project. Upon cutting, the lines produced approximately 200 gallons of rust colored water. Sampling results did not detect petroleum compounds. Based on the recent cutting and draining of these lines, the risk to the groundwater supply wells from these abandoned crude oil lines is low.

There are several storage conex boxes and ten Ground Level Offices (GLOs) located within 300 feet of Well #1. There are no hazardous materials stored in these units. Environmental Services, Radiological Controls (Rad Con) Supervisors and Decontamination & Decommissioning (D&D) supervisors occupy the six GLOs. The Environmental Services GLOs are used for environmental sampling coordination and office space. Less than one gallon of acids and scintillation liquids are managed in these units. All chemicals are maintained in secondary chemical containment trays. Risk to the groundwater supply wells from these nearby GLOs is low.

The south parking lot is located to the west of the two well locations. The parking lot is used for employee parking of personal vehicles, as well as temporary staging of large equipment, such as cranes. There is no chemical storage on the south parking lot. Storm water is conveyed via drainage ditches to the south and flows easterly to the headwaters of Erdman Brook. The storm water drainage flows approximately 200 feet to the south of Well #1. The impervious paved area eliminates the potential for surface waters to recharge into groundwater. The south parking lot presents a low risk to the groundwater supply wells.

Environmental Services maintains a blue storage tent, located upgradient of the drinking water wells that provides storage for two ATVs used for environmental sampling purposes, as well as gasoline powered environmental sampling equipment, such as generators and compressors. Gasoline cans and flammable material are stored within the flammable storage cabinet that is designed with secondary containment. The risk to the groundwater supply wells from these potential sources is low.

The Nuclear Regulatory Commission-Licensed Disposal Area (NDA) and the State Licensed Disposal Area (SDA) are radiological waste disposal sites located more than 700 feet downgradient of the groundwater supply wells. The wastes are buried within the Unweathered Lavery till and the top of bedrock elevation at the NDA occurs at an elevation 100 feet lower than the top of bedrock elevation at the bedrock wells. Groundwater monitoring wells surround the SDA and NDA and are routinely monitored. Due to the thickness and the physical properties of the Lavery till (a relatively thick impermeable aquitard), there is little risk to the groundwater supply wells from waste buried in these disposal areas.

Rock Springs Road is located upgradient of the groundwater supply wells. Under normal operational conditions, traffic passes north and south of the site having little to no impact on the groundwater supply wells. However, in the unlikely event of an accident, there is a potential for contaminants to enter the source water influent areas. Should any accidents occur on Rock Springs Road upgradient of the well locations resulting in a significant spill or release of toxic materials, then additional evaluation may need to be performed. Under normal conditions, the risk probability to groundwater supply wells from Rock Springs Road is low.

Pesticides are applied in small quantities in gel form in various areas to minimize ant infestations. Due to the minor volumes used and the surface application (separated from the bedrock by the Lavery till), the risk from this potential source is low.

Herbicides sprayed at the fence perimeter and railway are monitored (as applicable) under the site SPDES Permit. These activities are generally performed downgradient and present low risk to the groundwater wells.

Evaluation of potential additional storage areas are geospacially identified in Attachment B.

A source water protection evaluation is performed annually to determine facility changes that may impact the source water wells. The annual source water area walk down evaluation is performed by Regulatory Strategy to identify risks of potential contaminant sources that may influence groundwater and contaminate drinking water. Additionally, well locations are inspected for ground changes (e.g., subsidence) in the immediate vicinity of the two groundwater supply wells. If additional potential sources of contamination are identified due to future site changes, they will be evaluated and a determination of risk to the groundwater source will be made during the annual source water inspection. An Annual Source Water Inspection Checklist is provided in Attachment D.

10.0 SOURCE AREA MONITORING

Routine monitoring of the groundwater supply wells is performed in accordance with the *WVDP Drinking Water Monitoring Plan*, WVDP-572, *WVDP Drinking Water Monitoring Plan*, (PWS ID#NY0417557, Groundwater System). This includes monthly radiological monitoring. Additionally, biweekly monitoring (sampling) is performed at WWCOURT, EHMKE and 60CT272 (known as the Sentinel Wells) located between the MPPB and the groundwater supply wells. They provide a means for an early warning of any potential movement of radiological contamination in the bedrock vicinity of the groundwater supply wells. (See Attachment C.) Wells WWCOURT, EHMKE, and 60CT272 are monitored for gross alpha and gross beta activity on a biweekly basis.

11.0 ROUTINE WATER LEVEL MONITORING

Continuous water levels are monitored using data recorders in wells WNDWELL1, WNDWELL2, WWCOURT and EHMKE. This data provides the ability to collect real time measurements of drawdown of the bedrock groundwater aquifer from daily operations. Water level indicators are planned to be installed in the drinking water wells in 2021. Quarterly water levels measured in the S&G wells are evaluated for anomalous trends. This data may be utilized for further evaluation of the groundwater supply wells. Regulatory Strategy provides a graph of the water levels of wells WNDWELL1 and WNDWELL2 to Site Operations to monitor the water usage impacts on the supply wells. Regulatory Strategy will evaluate trending data to assist site operations in evaluating the water supply potential impacts on Site Operations

12.0 EMERGENCY PLANS AND NOTIFICATIONS

Should constituents of concern be identified during routine monitoring of the drinking water system, notifications to the CCHD will be made in accordance with 10 NYCRR Part 5, Subpart 5-1, Table 13. In additional, should radiological monitoring results obtained from the biweekly monitoring of the bedrock supply wells and WWCOURT, EHMKE and 60CT272 indicate greater than background levels of radiological indicator parameters, the CCHD will be notified.

13.0 <u>RECORDS</u>

The following forms, data sheets, logs, reports, or any other form of documentation are considered records and when created are to be prepared, maintained, and transferred to Records in accordance with WVDP-262 and WVDP-529. Refer to the CHBWV Master File Plan for further information.

- 13.1 Source Water Annual Inspection Report
- 13.2 Annual Inspection Checklist, WV-5644

14.0 <u>REFERENCES</u>

CH2M HILL BWXT, West Valley, LLC (CHBWV). Potable Water System Operation. SOP 32-04.

. Groundwater Monitoring Plan. WVDP-239.

_____. WVDP Drinking Water Monitoring Plan. WVDP-572.

GEI Consultants. July 31, 2014. Test Data Analysis: Water Supply Well #1 and Well #2 West Valley Demonstration Project.

_____. August 19, 2014. Geohydrological Assessment of New Bedrock Groundwater Supply Wells West Valley Demonstration Project.

The Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers (GLUMRB), 2018 Edition, <u>Recommended Standards for Waterworks, 10 States Standards, https://www.health.state.mn.us/communities/environment/water/tenstates/standards.html</u>

U.S. EPA. 2014. *Source Water Protection*, <u>http://water.epa.gov/infrastructure/drinkingwater/</u> sourcewater/ protection/index.cfm. WVDP-573 Rev. 7 Page 10 of 16

ATTACHMENT A

WVDP POTABLE WATER SYSTEM FLOW DIAGRAM



SEQUESTERANT CARUS 8100 RAW WATER

WVDP Source Water Management

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ATTACHMENT B

STORAGE FACILITIES IN DRINKING WATER WELL SOURCE AREA



ATTACHMENT C

WVDP SOURCE WATER PROTECTION – MONITORING

WVDP SOURCE WATER PROTECTION - MONITORING

Well Operations

Flow measurements (hours of operation) and volume pumped at the groundwater supply wells are recorded by Operations daily.

Water Levels

Continuous water level instrument probes are installed in EHMKE and WWCOURT wells. Note: Well 60CT272 was not influenced as significantly during the pumping tests and therefore does not have continuous water level measurements taken. However, water levels at 60CT272 are recorded biweekly at the time of radiological sampling. Quarterly groundwater level measurements are performed in the S&G wells under the *Groundwater Monitoring Plan*, WVDP-239. These water levels are routinely evaluated for anomalous long-term trends.

An annual evaluation of the pumping influence on the drawdown in the EMHKE, WWCOURT and 60CT272 will be made. Based on the drawdown evaluation, additional monitoring may be recommended.

Well Sampling

Routine sampling of the groundwater supply wells will be performed in accordance with WVDP-572, WVDP Drinking Water Monitoring Plan.

Additional sampling is performed biweekly for gross alpha, gross beta and pH from WWCOURT, EHMKE and 60CT272 wells. Gross alpha and gross beta data is provided to the CCHD as an addendum to the Monthly Drinking Water Report. Note: Re-evaluation of the sampling frequency will be performed annually.

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ATTACHMENT D

ANNUAL INSPECTION CHECKLIST

Annual Source Water Inspection Checklist

Date://				
Inspector:				
	Items	s Identified as "yes" require additional follow-up action(s)		
Inspection Items: check "yes" if inspection results suggest a potential for impact to the groundwater quality at the supply wells:				
No	Yes	Ground Subsidence at or near Well #1 or Well #2		
No	Yes	Evaluation for potential chemical storage within 300' of Well #1 or Well #2		
No	Yes	Annual evaluation of water level impacts on nearby wells completed		
No □ Grou Any p	Yes D Indwa potentia	Annual evaluation of radiological results from Groundwater Well #1 ter Well #2 and Sentinel Wells completed I impacts to groundwater quality may require additional evaluation.		

WVDP RECORD OF REVISION

Rev. No.	Description of Changes	Page(s)	Dated	
0	Original Issue.	All	08/25/14	
	This procedure was created by the request of the			
	Cattaraugus County Health Department.			
	This procedure affects NOS & RS.			
4				
.1	Changed CH2IVIHIII B&VV West Valley, LLC to	Conorol	10/12/15	
	CH2M HIII BWXT West Valley, LLC.	General	10/13/15	
	and changed Jerry O'Leary to Allen Unshaw	5		
	Section 10.0 - Changed frequency of area walk down	7		
	evaluations from guarterly to annually.	•		
	Updated sketch of drinking water system to include			
	the new iron filter.	10		
	Attachment C - changed timing of evaluation of drawdown			
	from "will be made within 6 months of initial groundwater	13		
	supply well operation" to "an annual evaluation."			
	Clarified data to be sent to the CCHD. General and other minor c	hange.Throughout		
2	General Revision	Throughout	11/10/15	
2	Replaced Updated Attachment B	Attachment B	11/13/13	
	Revised reporting section.	Attachment C		
	RS and Environmental Services are affected by these changes.			
3	Major Revision			
	Section 3.0 - Added "Operators" and their certifications.	3	04/04/16	
	Section 4.0 – Added well 1 and 2 with sampling IDs.	4		
	Section 6.0 - Added discussion on monthly radiological sampling	5		
	of the drinking water wells. Section 7.0 – Added Steve McPeak as	Operator.		
	Section 9.0 – Added strategic location to drinking water wells	6&/		
	(e.g. upgradient of downgradient).	c 9		
	ner WVDP-572 and monthly radiological sampling	5 0		
	Attachment C – Added the word "routinely"	13		
	Added Regulatory Strategy as the group performing	8		
	the annual review.	-		
	The changes affect Environmental Services and Plant Systems Op	erations.		
			444040	
4	Major Revision		11/18/19	
	Updated Cognizant Manager.	Cover Page		
	Demoved Eastnets partsining to compling requirements and under	alors. 3		
	System Overview information. Undates Source Water Protection Co	eu mmittoo 5		
	Undated Source Area Inventory / Protection regarding W/W/TE	6		
	Added berbicide spraving to railroad tracks	0		
	Modified sentence pertaining to hi-weekly sampling (for clarity)	10		
	Replaced W//DP Source Water Systems Flow diagram	10		
	Replaced Source Water Protection Inspection Area Overlav	13		
	Removed Source Area Inventory Sketch	14		
	Revised Annual source Water Inspection Checklist.	16		
	General correction to spelling and grammar.	Throughout		
	Regulatory Strategy is affected by these changes.	-		

WVDP RECORD OF REVISION CONTINUATION FORM

		Revision On	
Rev. No.	Description of Changes	Page(s)	Dated
5	General Revision – Major Changes		01/22/2020
	Updated Operators.	3	
	Updated General Information	3&4	
	Updated Background Information.	4&5	
	Updates System Overview.	5&6	
	Updates Source Water Protection Committee.	6&7	
	Revised Source/Area Inventory Protection section .	8&9	
	Updated Attachment B Source Area Inventory.	15	
	Updated Attachment D - Annual Inspection Checklist.	19	
	Regulatory Strategy and PSO are affected by these changes.		
6	General Revision Major Revision	All	04/07/2021
0	Undated list of Operators	3	04/01/2021
	Undated haragraphs on pages 4 & 5 to provide clarity	185	
	Changed some language for clarity and removed discussion of Rad	Con Units 7&8	
	Added discussion of future installation of water level indicators in we		
	Changed Section 13 to indicate the inspection form is a Record	,iis. 5 Q	
	Added 10 States Standards to section 14 0 References	9	
	Revised Annual Source Water Inspection Checklist and assigned W	V-5644 16	
		V-5044. 10	
7	General Revision - Major Changes.	All	05/03/2022
	Added well numbers WNDWELL1 and WNDWELL2, and clarified us	se 8	
	of data collected.		
	Regulatory Strategy and PSO are affected by these changes.		