

DRINKING WATER SOURCE PROTECTION PLAN

for

The Village of Amesville

Athens County, Ohio

PWS ID# [OH0500112](#)

[January 2018 Update January 2021 and approved](#)

Prepared by:

The Amesville Board of Public Affairs

With assistance from

Ohio EPA

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1.0 INTRODUCTION

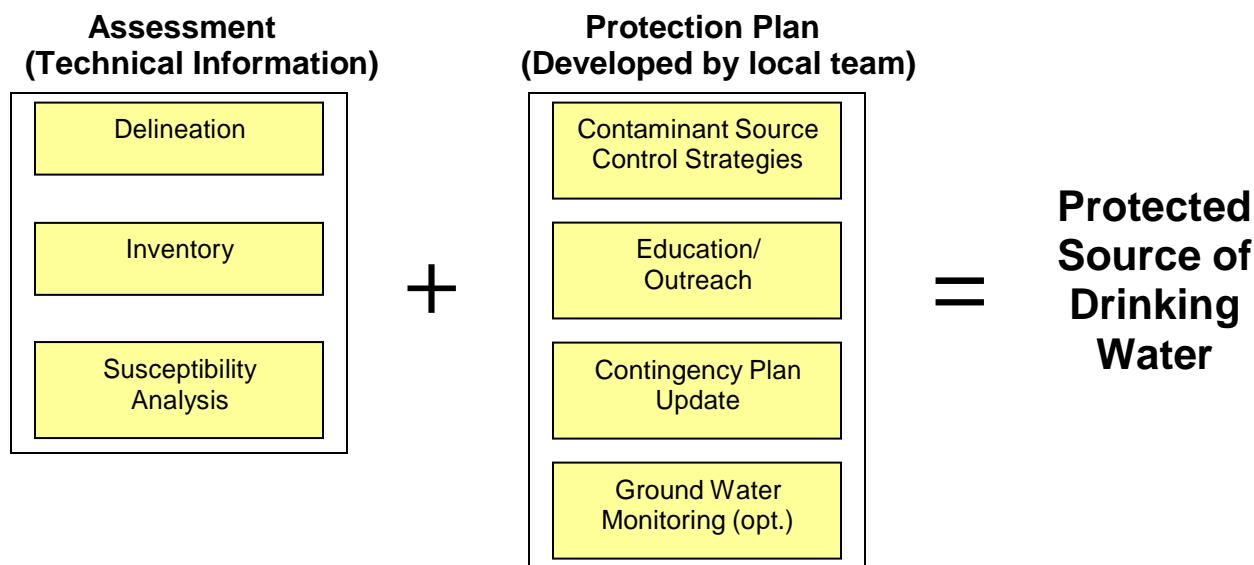
The Village of Amesville has developed a Source Water Protection Plan (“Protection Plan”) to document the strategies we will implement to protect the aquifer that supplies our drinking water from land-based contamination. Components of the Protection Plan include: contaminant source control strategies, education and outreach strategies, contingency plan update. In some future scenarios, it might be appropriate to institute a background ground water monitoring program. However, at this time, no additional ground water monitoring is proposed.

This Protection Plan builds on the Source Water Assessment Report that was completed by the Ohio EPA in January 2003 (and recently revised in January 2018). Ohio EPA also conducted a sanitary survey of the village’s public water system that was completed in November 2013. The Assessment Report (revised January 2018) and sanitary survey letter (December 2013) is included in Appendix A for reference. The Assessment Report includes a delineation of the one year and five-year time of travel areas, a potential contaminant source inventory and a susceptibility analysis. The potential contaminant source inventory was last updated in April 2012 by Ohio EPA/Village of Amesville, to ensure the protective strategies documented here are based on currently existing contaminant sources.

1.1 BENEFITS OF A PROTECTION PLAN

A Protection Plan:

- Helps the Village of Amesville provide the safest and highest quality drinking water to its customers at the lowest possible cost;
- Helps to plan for future expansion, development, zoning, and emergency response issues; and
- Can provide more opportunities for funding in order to improve infrastructure, purchase land in the protection area, and other improvements to the well field.



1.2 SUMMARY OF AMESVILLE'S SOURCE WATER ASSESSMENT

SYSTEM DESCRIPTION & GEOLOGY. The Village of Amesville is a community public water system serving approximately 200 people in Amesville, Ohio, and 400 people at the Amesville Elementary School. This system operates 2 wells that pump approximately 14,000 gallons of water per day from a sand and gravel aquifer (water-rich zone) within the Federal Creek Alluvial aquifer system. The aquifer is covered by 6 to 11 feet of high permeability material, which provides minimal protection from contamination. The depth to water in this aquifer is 7 to 14 feet below the ground surface. Soils in the area are silty loams which are moderately well-drained, meaning that much of the rainfall and snowmelt will infiltrate into the soil, instead of running off or ponding. The topography is generally moderately sloping with an average relief of 20 feet over a distance of 2800 feet.

PROTECTION AREA. The drinking water source protection area for the Village of Amesville's wells is illustrated in the Drinking Water Source Assessment Report (revised January 2018) in Appendix A. The Protection Area figure shows two areas, one inside the other. The "inner protection zone" is the area that provides groundwater to the Village of Amesville's wells within one year of pumping. A chemical spill in this zone poses a greater threat to the drinking water, so this area warrants more stringent protection. The "outer protection zone" is the additional area that contributes water when the well is pumped for five years. Together, they comprise the drinking water source protection area.

The village's wells are located west of town along Jago Valley Road, approximately 1800 feet north of State Route 550. Based on relevant databases and a field inspection of the area, [8] potential sources of contamination were identified within the protection area. These include: 1) Surface water impoundments; 2) Cultivated Fields (Agricultural Crops); 3 Farm Animal waste; 4) Septic system wastes from nearby dwellings; 5) Chemical/Material Storage Areas; 6) Local oil and gas wells; 7) Spills from local roadways; 8) Cemeteries in the northern section of the protection area.

The Village of Amesville's source of drinking water has a **HIGH** susceptibility to contamination due to: lack of a protective layer of clay, shale, or other relatively impermeable material overlying the aquifer, shallow depth to water (less than 15 feet below ground surface), and the presence of potential contaminant sources in the protection area.

2.0 FORMING A PROTECTION TEAM

The Source Water Protection Plan was developed by a local team made up of water system staff, council members, emergency responders, the mayor, and businesses in the protection area.

2.1 BUY-IN BY DECISION MAKERS

The Village of Amesville held a source water protection planning meeting attended by 5 individuals in October 2013. The Village council passed a resolution that acknowledges the importance of source water protection and commits to developing and implementing a drinking water source protection plan.

A copy of the resolution is included as Appendix B.

<u>System Decision Makers Meeting</u>	
Date of presentation to decision makers <u> 10/30/2013 </u>	
Was a resolution passed? <u> X </u> Yes <u> </u> No	
Person in charge of oversight of the protection plan development	
<u> Gary Goosman </u>	<u> Mayor </u>
Name	Title
<u> 740-448-2411 </u>	
Phone Number	

2.2 PROTECTION TEAM MEMBERS

Date Protection Team was formed: September 2013

Table 2-1. List of Protection Team Members			
Name (E-mail address)	Title	Organization	Phone Number
Gary Goosman amesvillemayor@gmail.com	Mayor	Village of Amesville	740-448-2411
Brant Denis	Chief	Amesville Fire Dept.	740-448-2411
Tabitha Keirns	Current Village Administrator	Village of Amesville	740-448-2411
Jayne Darling	Council President	Village of Amesville	740-448-7552
David Arrington	Resident		740-448-1088
Mary Ann Westendorf	Certified Wastewater Operator	Former Operator	740777-2641
Lee Van Dyke	Certified Water and Wastewater System Operator	Village of Amesville	740-448-7239

3.0 STRATEGIES FOR CONTAMINANT SOURCES

The goal of this section is to develop protective strategies for the potential contaminant sources in the Village of Amesville’s protection area. The potential contaminant sources listed in the Source Water Assessment Report (see Appendix A) were evaluated. The Village of Amesville developed specific protective strategies the community will use to protect its drinking water from the types of potential contaminant sources identified. A listing of the potential contaminant sources in the Village of Amesville’s protection area and the protective strategies selected to address them is presented in the following table.

Table 3-1. Strategies to Reduce Risk of Specific Contaminant Sources

Potential Contaminant Source	Priority/ Level of Threat	Protective Strategies	Timeline for Implementation	Who Will Implement? [Name/Title]
State Route 329 And 550	1	Install road signs on Route 329 (north edge) and Route 550 western edge. If additional signs are needed, the village will fabricate/install as necessary.	Install by end of 2018.	Mayor will contact ODOT; ODOT will install.
		Update PWS contingency Plan	By 2018 and every 3 years thereafter.	PWS Operator
		Coordinate with Emergency responders	By 03/2018.	PWS Operator
Agriculture	2	Provide Best management practices and Source water protection information to agriculturalists in/near the protection area.	Every September, starting in 2018.	Local SWCD / OSU Extension Service; Amesville Operator will make request
		Ask county SWCD/OSU Agricultural Extension staff to meet with individuals farming in protection area, to promote farming BMPs, such as enrollment in Conservation Reserve Program, planting winter crops, avoiding chemical storage in the protection area, washing, or loading sprayers near wells of any kind, etc.	Every September, starting in 2018.	Local SWCD / OSU Extension Service; Amesville Operator will make request
Oil & Gas Wells	3	Request annual ODNR inspections of the oil & gas wells and accompanying tanks in and near the protection area.	Request first annual inspections by June 2018. (Annually thereafter)	Village Administrator
Federal Creek	4	Provide protection area information to Army Corps of Engineers and Muskingum Watershed Conservancy District	September 2018 and every 3 years, thereafter.	Village Administrator
Jago Valley Road	5	Provide information to Ames Township Trustees about the protection plan and need for containment of contaminants that might be applied to the road.	September 2018 and every 3 years.	Village Administrator
Private Landowners (w/ septic systems)	6	Ask county health department to meet with individuals who utilize independent wastewater systems within the protection area. Supply residents with BMPs on proper maintenance. Inspect systems if necessary.	September 2018 and every 3 years, thereafter.	Village Administrator

4.0 EDUCATION AND OUTREACH

The purpose of the Protection Team’s education and outreach efforts is to inform people who live and work in the Village of Amesville’s drinking water source protection area about where their drinking water comes from and why it is important to protect this valuable resource. Education and outreach efforts will also inform the community how their activities can potentially impact groundwater and what they can do to prevent contamination.

Table 4-1. Educational Strategies			
Education and Outreach Strategies	Target Audience	Time line for Implementation	Who (name and title) will implement this strategy?
Consumer Confidence Report – include information about actions residents can take to protect source water quality	Water customers	Distribute annually, in April.	PWS operator
Place brochures, protection area maps and best management practices information/fact sheets at library, post office, on village billboard, website and at local businesses.	Water customers	July 2021.	Village Administrator
Place drinking water protection flyers at local businesses and on Amesville’s web site. www.amesvilleohio.org	Water customers / local businesses	July 2018. Renewed every 2 years	Village Administrator
Send out general brochure to customers with water bills.	Water customers	January 2019, then every 3 years thereafter.	Water Clerk
Provide best management practices fact sheets to applicable local businesses, farmers, and industries.	Farmers, Business owners	March 2018.	Village Administrator
In conjunction with the science teaching staff of the school system, develop a ground water/source water protection demo.	Students	September 2018.	Mayor (Ohio EPA and SWCD Staff are available to assist local science teachers.)

5.0 UPDATE OF CONTINGENCY PLAN

A well-formulated contingency plan enables a utility to prepare for, respond to, and recover from crisis conditions without wasting time on futile or unnecessary efforts, or spending funds unnecessarily. The plan defines the duties, responsibilities, and functions of all water system personnel with respect to each specific emergency condition. The Village of Amesville has developed procedures to address specific situations that can be expected to arise, and these are documented in the Village of Amesville's water plant contingency plan.

The following are issues that are specific to drinking water source protection. This information has been included in the water plant contingency plan.

5.1 DRINKING WATER SHORTAGE – SHORT TERM LOSS OF SOURCE

If the Village of Amesville experiences a short-term loss of its drinking water source (such as through a short-lived emergency at the well field, collapse of a well, etc.), it will:

Provide access to water through a village purchase of bottled water and business donations wherever possible.

The Village of Amesville can provide water from existing storage tank for up to 3 days, provided it is not necessary to flush out the entire distribution system.

Current storage in gallons (100,000) / (# of customers - 255) x 100 gallons (daily use/person)
= 3.9 days => ~ **4 days of storage**

5.2 DRINKING WATER SHORTAGE – LONG-TERM LOSS OF SOURCE

In the event of a complete loss of the current well field, the Village of Amesville would most likely:

- Construct a raw water line with The Sunday Creek Water System on Linscott Road.
- or
- Move to secure another well field in the vicinity.

5.3 FUNDING FOR WATER EMERGENCIES

The Village of Amesville currently has \$5000 budgeted for emergency use. The mayor or administrator can authorize the expenditures from this account under emergency conditions. If additional monies are required, the Village of Amesville has been in contact with The Unified Bank for emergency loans/credit.

5.4 PLANNING FOR THE FUTURE

- A. Current average daily pumpage = 13,800 gallons per day (as of 2021)
- B. Current daily system design capacity = 15,000 gallons per day
- C. Well field capacity (the maximum amount the wells can pump, based on the capacity of the pumps) is 15,000 gallons per day.

The Village of Amesville currently is pumping about 40% (A/B) of its design capacity and 7% (A/C) of its well field capacity.

Census figures indicate that The Village of Amesville has maintained a steady population (of 150 to 225) since the late 1800s. Currently no significant growth or decline of population is anticipated. Due to the nature of the local aquifer, ground water levels in the vicinity have remained steady even during major drought years. Also, currently, Amesville is not aggressively developing its business capacity and does not anticipate a sudden spike in industrial use of water.

Based on this, the Village of Amesville does not anticipate the need to expand the well field or significantly increase pumpage within the next 5-20 years.

5.5 EMERGENCY RESPONSE TO A TOXIC SPILL/RELEASE IN PROTECTION AREA

The Village of Amesville's Contingency Plan addresses accidental chemical spills and releases in the protection area. A copy of this information is shown on the following page:

Accidental Chemical Spill or Release within the Protection Area

1. () Determine the following information:
Who made the first observation? What is their phone number and location?
When did it happen?
What is it?
Where is it? Is it isolated to one area or is it wide spread?
Has the spill been reported to Ohio EPA?
Has the fire department or hazardous materials response team been notified?
Has the property owner been notified?
2. () If no notifications have been made, immediately contact emergency personnel and agencies (i.e., fire dept., Ohio EPA, etc.) using the phone number(s) found in Appendix A of the Contingency Plan. Notify them of the situation.
3. () Contact the following work personnel, city officials, and contractors using the phone number(s) found in Appendix A of the Contingency Plan

NAME: Ohio EPA Southeast District Office: 740-385-8501
NAME: Mayor Gary Goosman: 740-448-2411
NAME: Athens County EMA: 740-594-2261

4. () If it is safe to do so visit the scene to contact on-scene emergency personnel and agencies. The local fire department is generally the lead response agency.
5. () Complete the following activities as soon as possible:
 - a. () Perform a physical check on the system and its structural integrity (check wells for damage, etc.).
 - b. () If it is determined that the spill resulted in the probable introduction of contaminants into the wells, proper precautions must be taken during sampling to prevent exposure to the contaminant and/or daughter products.
 - c. () If repairs are needed, coordinate with the lead response agency and Ohio EPA to ensure the safety of the repair crew. Proper precautions must be taken to prevent exposure to the contaminant and/or daughter products.
 - d. () If the system needs to be temporarily shut down as a result of the spill, the procedures can be found on page 12 of the contingency plan. Plans for short term loss of source can be found on page 3 of the contingency plan.
6. () If the wells are secure, coordinate with the lead response agency and Ohio EPA on actions being taken to mitigate the spill. At a minimum, obtain the following information:

Who is responsible for the cleanup? What is their phone number and other contact information?
What contractors or consultants have been sent by the responsible party?
What actions have they taken?
How long is clean-up expected to take? How long must water use be stopped or reduced? (If greater than one week, options for long-term loss of source may be initiated. See pages 6 of Contingency Plan.)
7. () Follow-up with the on-scene responders and contractors to determine if additional, long-term actions (such as ground water treatment and/or additional raw water monitoring) are required or recommended. If so, determine:
 - What kind of monitoring is needed, at what frequency
 - What levels will trigger return to normal operations
 - What kind of additional treatment may be needed

6.0 Ground Water Monitoring

The Village of Amesville's source water protection team has decided not to incorporate ground water monitoring in its Source Water Protection Plan. Although the source water protection area is highly susceptible to contamination, it is believed that ongoing visual monitoring and inspection of activities within the source water area will serve as a substitute for the chemical warning given by a ground water monitoring program. Also, since the establishment of Amesville's well field, no historical contamination has been detected. No local plume within the capture zone of the well field is believed to be present. If such contamination became known or highly suspected, Amesville would reconsider the option of a ground water monitoring program.

7.0 Periodic Review

A protection plan is not a static document. Over time many issues related to protection planning will change- wells will be added or removed from the well field, existing potential contaminant sources will close, new education and outreach opportunities will become available, new partners in protecting the drinking water source will be identified. The protection plan needs to plan for these and other events.

The Village of Amesville commits to reviewing the Drinking Water Source Protection Plan every 3 years, beginning in January 2021.

7.1 Updating the SWAP Assessment

Delineation Updates

- Has the amount of pumping increased or decreased since the date Ohio EPA/consultant provided the Drinking Water Source Assessment report?
- Have any wells been added or removed?
- Has a new well field been added or are there any plans for a new well field?
- Is there new hydrogeologic data to refine the delineation model (e.g., flow direction, pump tests, new well logs etc.)?

If the answer to any of the above questions is yes, the Village of Amesville will contact Ohio EPA's Source Water Assessment and Protection Program staff in the Southeast district office to determine whether the protection area should be re-delineated.

Potential Contaminant Source Inventory

- Has the extent of the protection area changed?
- Has the community developed rapidly?
- Have land uses in and around the protection area changed?
- Has management of businesses in the protection area changed?

If the answer to any of the above questions is yes, Village of Amesville will update the inventory or conduct a new inventory. The village of Amesville may contact Ohio EPA's SWAP staff in the district office for guidance or assistance in conducting the inventory.

7.2 Evaluating the Effectiveness of the Protective Strategies

In order to evaluate if the protective strategies in this Source Water Protection Plan are achieving the desired outcomes, the Village of Amesville will consider the following types of questions and write any changes into the Protection Plan.

Do we have reason to be concerned about how the drinking water source protection area may be used in the future? Should we consider trying to better protect it through a local ordinance? Would such an ordinance need to be enacted and implemented by another jurisdiction?

Pollution Source Control Strategies:

- Have we followed our own schedule of implementation/timeline (Section 2, Table 2-1) for each of the pollution source control strategies?
- Are there new potential contaminant sources that need to be addressed with new pollution source control strategies?
- Have we implemented any new protective strategies that are not documented here?
- Did any of our strategies result in removal or elimination of a potential source?
- Did any of our strategies result in business owners or individuals modifying practices to decrease the risk of contaminating the drinking water source?
- Did our coordination with other groups (SWCDs, county EMAs, local health dept., local watershed group, etc.) contribute to the implementation of protective strategies?
- Have the partnerships developed during plan implementation been productive?

Education and Outreach:

- Have we followed our own schedule of implementation/timeline (Section 3, Table 3-1) for each of the educational strategies?
- Are there any new groups in the population that we need to target with education and outreach strategies?
- Have we implemented any new educational strategies that are not already documented here?
- Has education and outreach targeting any specific group resulted in actions that reduced or could potentially reduce the risk of contaminating the drinking water source (e.g., septic system owners conducting regular maintenance, farmers using best management practices, properly sealing abandoned wells)?
- Have we received additional funding to continue any education and outreach strategy?
- Have we received any accolades, awards or recognition from outside entities or organizations for our educational efforts?
- Have we had any unsolicited requests for SWAP-related education (such as requests for plant tours, requests for presenters/speakers at events, etc.)?
- Did our coordination with other groups (SWCDs, SWEET Team, local health dept., local watershed group, etc.) contribute to the successful development and dissemination of SWAP-related information?

- Did we have sufficient staff and resources to complete all the planned educational efforts?
- Have educational efforts been cost effective? Efficient? (Consider level of attendance, attentiveness and participation by audience, comments received, etc., vs. the cost to facilitate the event) Should the frequency of the outreach be increased, decreased, or remain the same?
- Have the partnerships developed during plan implementation been productive?
- Have any of the target groups contacted the public water system for additional information about something they saw or heard about through these activities?

Drinking Water Shortage/Emergency Response:

- Are there any updates to the Drinking Water Shortage/Emergency Response Plan?
- Did our coordination with emergency responders at the local and county level result in better communication and handling of spill incidents that could impact our drinking water?

Ground Water Monitoring:

- Have there been any significant changes to our water quality?
- Are there new water quality data, potential contaminant source or land use issues that may make it necessary to develop and implement a ground water monitoring program?

7.3 Revising the Plan

Upon review, if any revisions of the SWAP Assessment Report are needed, the Village of Amesville will contact Ohio EPA's Southeast district office for guidance. Also, if the local planning team makes any substantial changes to the Village of Amesville's Protection Plan, a copy will be forwarded to Ohio EPA for concurrence. The revision will be documented on the front cover by adding "Revised [date]" beneath the date at the bottom of the page.

Appendix A

Background Documents

- [Source Water Assessment Report \(revised, January 2018\)](#)
- [Sanitary Survey of the Amesville Water PWS System \(2013\)](#)
- [Example Consumer Confidence Report \(2012\)](#)



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

May 15, 2013

**RE: ATHENS COUNTY
 VILLAGE OF AMESVILLE
 COMMUNITY PUBLIC WATER SYSTEM
 PWS ID# OH0500112
 STU 10# OH0552893**

Village of Amesville
Attn: Gary Goosman, Mayor
P.O. Box 190
Amesville, OH 45711

RECEIVED
MAY 17 2013

BY: TM

Dear Mayor Goosman:

On April 14, 2013, I conducted a sanitary survey of the Village of Amesville's public water system. Rich Kasler was interviewed and the water system was inspected in his presence.

The purpose of this evaluation is to determine the ability of the facility to provide adequate, safe, and potable water that meets the requirements of the Ohio Administrative Code. The eight major elements that are generally reviewed during a sanitary survey include: source, treatment, distribution system, finished water storage, pumps/pump facilities and controls, monitoring/reporting/data verification, water system management/operation, and operator compliance with State requirements. General supervision of the operation and maintenance of public water systems is a function of this Agency as set forth in Chapter 6109 of the Ohio Revised Code.

Identified below are regulatory requirements for which action must be taken to return to compliance, and recommendations to address deficiencies that have the potential to cause future violations or contamination. Each of the following sections is the results of findings documented in the Sanitary Survey Evaluation Report, a copy of which is being sent to your operator. We may also be sending your operator additional information (e.g. photographs, sampling results, violation report, etc.) to aid your water system in implementing the necessary corrective actions.

RECOMMENDATIONS

The following deficiencies are not regulatory violations, but are actions that are recommended by this Agency for optimum operation and to reduce the potential for future violations or contamination:

- 1. Drawdown of the wells is not currently being measured. Drawdown measurements give you important information about your wells. You can combine drawdown data with well yield to evaluate the efficiency and performance of a well. It is

recommended that drawdown measurements be taken at least annually and compared with historic values. Measurements should be taken in the driest part of the year.

2. There is no emergency power available. It is recommended that a source of emergency power be provided to operate all critical water system facilities. *This is being pursued via an agreement with the Village of Chauncey for access to their 3-phase generator. A transfer switch will be added to the circuit box in 2014.*
3. The chemical feeders have not been calibrated to ensure consistent feed rates. Chemical feeders should be regularly calibrated to ensure proper chemical dosing and to monitor their conditions. *This will be done in 2014.*
4. The bench sheets used for recording chemical usage only include the quantity of chemicals used. The bench sheets should also include the dosage in mg/l for each chemical.
5. The village does not have a written Operations and Maintenance program which includes a preventative maintenance plan for the water system. An Operations and Maintenance plan should be developed to prevent the water system infrastructure from rapidly degrading. In addition, records for the program should be kept in a manner to be protected from weather damage and immediately available for inspection by Ohio EPA personnel. *A sub-set of Council will be undertaking this project and complete it prior to the end of 2014.*
6. The system has not developed a Source Water Protection Plan. It is recommended that the water system complete its Source Water Protection Plan. For more assistance, please contact Steve Saines at (740)380-5445. *Our plan is being finalized after meeting with Steve Saines of the Ohio EPA.*
7. There is no valve exercising program to help maintain the system components in an operable condition. A valve exercising program should be developed to ensure that line breaks can be isolated and drained for repair. *This has been referred to our system operator, Rich Kasler, for the creation of a procedure and plan.*
8. The village does not own or have control of the three-hundred-foot isolation radius around the wells. In accordance with OAC rule 3745-9-04, a public water system shall own all the land or obtain an easement or lease of the sanitary isolation radius of a water system well. The village may need to address this issue in more depth if the current water supply is damaged or deteriorates to the extent a new well is needed. It is recommended that the village begin to search for acceptable locations for a new water supply in case the current wells become inoperable. *This will be studied by the Mayor and Council.*

9. The village does not have a 5 year or preventative maintenance plan for the water system. A 5-year plan and preventative maintenance plan should be developed to plan for future upgrades/improvements to the water system infrastructure. *This will be developed in conjunction with the Amesville Source Water Protection Plan.*
10. The system does not have a written flushing program. The water system should incorporate a flushing program based on a written procedure which describes the sequence in which hydrants and valves are opened and closed. The date, number of turns, duration and flow rate should also be recorded. *Referred to system operator.*
11. There is no secondary containment for the calcium hypochlorite. Liquid storage tanks must have a receiving basin capable of receiving accidental spills or overflows without uncontrolled discharge. *Referred to system operator.*
12. The tank is showing signs of deterioration. This tank should be repaired as needed and painted to protect the integrity of the tank. Tanks should be inspected inside and out every five years. *Referred to system operator.*
13. The storage tank does not have a means of preventing trespassing, vandalism, or sabotage. The water system should investigate ways to prevent access to the tank such as fencing.
14. There is no meter calibration program to ensure meters are correctly reading water usage. A meter calibration program can help eliminate the amount of water customers are using and not paying for. *Referred to system operator.*
15. The filter media depth has not been inspected for an extended amount of time. The media depth should be checked on an annual basis and replaced as needed. *Referred to system operator.*
16. The filters are not equipped with a loss of head gauge. The addition of a loss of head gauge to your filters will help you in evaluating the efficiency of your filters. *Referred to system operator.*
17. The building which houses the water treatment equipment contains a significant amount of moisture and needs being cleaned up. The building should provide dry and clean storage for all components of the water treatment system. *The mayor is investigating a de-humidifying system for the building.*
18. The filter and detention tank are showing signs of deterioration. These pieces of equipment should be repaired as needed and painted to protect the integrity of the water system.

19. There has been no calculation of the amount of water loss for the system. Tracking water loss helps the village to identify leaks and ensures that there is no unnecessary financial strain on the water system. Referred to system operator.
20. There is no scale or other measurement equipment provided for the sodium hypochlorite feed system. Provisions should be made for measuring the quantities of chemicals used. Referred to system operator.
21. The sodium hypochlorite feed system does not have a sufficient lid to prevent the introduction of contaminants. A tight-fitting lid with a vent to the atmosphere should be provided. Referred to system operator.
22. There is no written standard operating procedure for the backwash. A written procedure should be compiled should any unseen circumstances arise in which the operator would not be available for an extended time. Referred to system operator.
23. The reaction tank is open to the atmosphere. The village should investigate ways to seal the tank to prevent the introduction of contaminants to the water. This will be developed in conjunction with the Amesville Source Water Protection Plan.
24. Currently the village cannot isolate the storage tank for maintenance without disrupting the distribution system. The village should investigate ways to install a bypass around the tank that would not disrupt the distribution system. Referred to system operator.
25. Operation and maintenance records are not being maintained for the treatment plant. The village should begin to keep daily records of maintenance and operational activities conducted at the treatment plant and the distribution system. This will be developed in conjunction with the Amesville Source Water Protection Plan.
26. The current contingency plan does not consider operator absence or flooding. The next time the contingency plan is updated it should include considerations for operator absence and flooding. This will be developed in conjunction with the Amesville Source Water Protection Plan.
27. The storage tank interior has not been inspected during the past five years. Tank interiors should be inspected every five years to ensure the integrity of the tank is being maintained. This will be developed in conjunction with the Amesville Source Water Protection Plan.

Village of Amesville

May 15, 2013

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28. The conduit that houses the electrical wires for the pump in the wells is not properly connected at the well cap resulting in an opening to the well. An opening to the well such as this allows for contamination from insects and rodents and should be properly sealed. Referred to system operator.

29. It appears that the discharge from the backwash of the filter may need a permit. Please contact Nick Hammer of our office at (740)380-5416 to discuss any necessary discharge permits. Referred to system operator.

Please note that additional information concerning existing and upcoming drinking water regulations and requirements can be obtained from our Web site at <http://www.epa.state.oh.us/ddagw/> if you have any questions regarding this letter, or any other matter involving your water system, please feel free to contact me at (740)380-5436.

Sincerely,

ZJ? A Rex

S. Haggy Environmental
Specialist II Southeast
District Office
Division of Drinking and Ground Waters

RSHicb

cc: C.O.- DDAGW / OFAS / Mike Santone
cc: Athens County Health Dept.
cc: Rich Kasler (with enclosures)
cc: Nick Hammer, SEDO-DSW (item #24)

Attachments

VILLAGE OF AMESVILLE

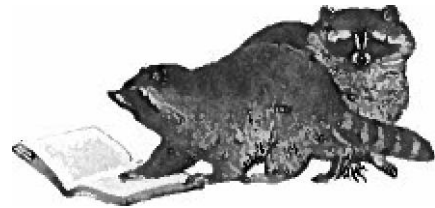
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1.O. Box 190 Amesville, Ohio 45711

Voice 740-448-2411; Fax 740-448-2411

Gary Goosman, Mayor
amesvillemayor@gmail.com

Tom McGuire, Chief Fiscal Officer
fo.amesville@gmail.com



Drinking Water Consumer Confidence Report 2012

The Village of Amesville has prepared this report to give you information on the quality of your drinking water. It includes general health information and water quality test results, among other information.

Source Water Information

The Village of Amesville receives its drinking water from two production wells that are designated ground water sources. The wells are located on Jago Road, just off Route 550 west of the village in Ames Township. The Ohio EPA recently completed a study of the Village of Amesville's source of drinking water to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study the aquifer (water-rich zone) that supplies water to Amesville has a high susceptibility to contaminants. This determination is based on: a lack of a protective layer of clay or shale overlying the aquifer, the shallow depth (less than 15 feet below ground surface) of the aquifer, and the presence of significant potential contaminant sources in the protection area. This susceptibility means that under currently existing conditions the likelihood of the aquifer becoming contaminated is relatively high. Implementing appropriate protection measures can minimize this likelihood. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling 740-448-7271.

Source of Contamination to Drinking Water

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Water Drinking Hotline -1-800-426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Amesville water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using your water for drinking or cooking. If you are concerned about lead in your water you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or online at <http://www.epa.gov/safewater/lead>.

Who needs to take special precaution?

Some people may be more vulnerable to contaminants in the drinking water than usual. Immune-compromised people such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants – can be particularly at risk from infection. These people should

Amesville Drinking Water Consumer Confidence Report for 2011

OH0500112 • AMESVILLE PUBLIC WATER SYSTEM

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2012	0.5	.5 - .5	MRDLG=4	MRDL=4	ppm	N	Water additive used to control microbes.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2012	.336	.336-.336	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2012	0.2	.2 • .2	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium	2012	8.5	8.5-8.5	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Lead and copper	Collection Date	90 th Percentile	#of samples Over AL	MCLG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	2012	0.126	0	L3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	2012	0	0	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Definitions of some terms contained in this report:

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there are no known or expected risks to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/L): Units for measuring concentration of contaminants. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion or Micrograms per Liter (ug/L): Units for measuring concentration of contaminants. A part per billion corresponds to one second in 31.7 years.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of contaminant in drinking water. *The < symbol:* Less Than – A result of <5 means the lowest level that could be detected was 5 and the contaminant in that sample was not detected. The village samples chlorine levels daily to ensure drinking water safety. We are also required to take one bacterial sample monthly with all results in 2012 being safe.

Appendix B

**Source Water Protection Council Resolution
Plan reviewed and updated 2022**

Resolution Authorizing Source Water Plan

Village of Amesville, State of Ohio

RESOLUTION 18-13

1st Reading: 10-9-13
2nd reading: 11-13-13
3rd Reading: 12-11-13

Adoption: 12-11-13

Effective: 1-10-14

A RESOLUTION FOR: approving a source water protection plan.


This Resolution:

(x) shall take effect at the earliest time permitted by law

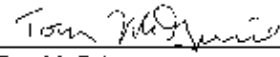
() is declared an emergency and shall take effect immediately due to:

Passed this 11th day of December, 2013 with a roll call as follows: Marcia Burchby –
yea, Jayne Darling – yea, Barb Klacr – yea, and Bob Pollock - yea.

Attested:



Gary Goodman
Mayor

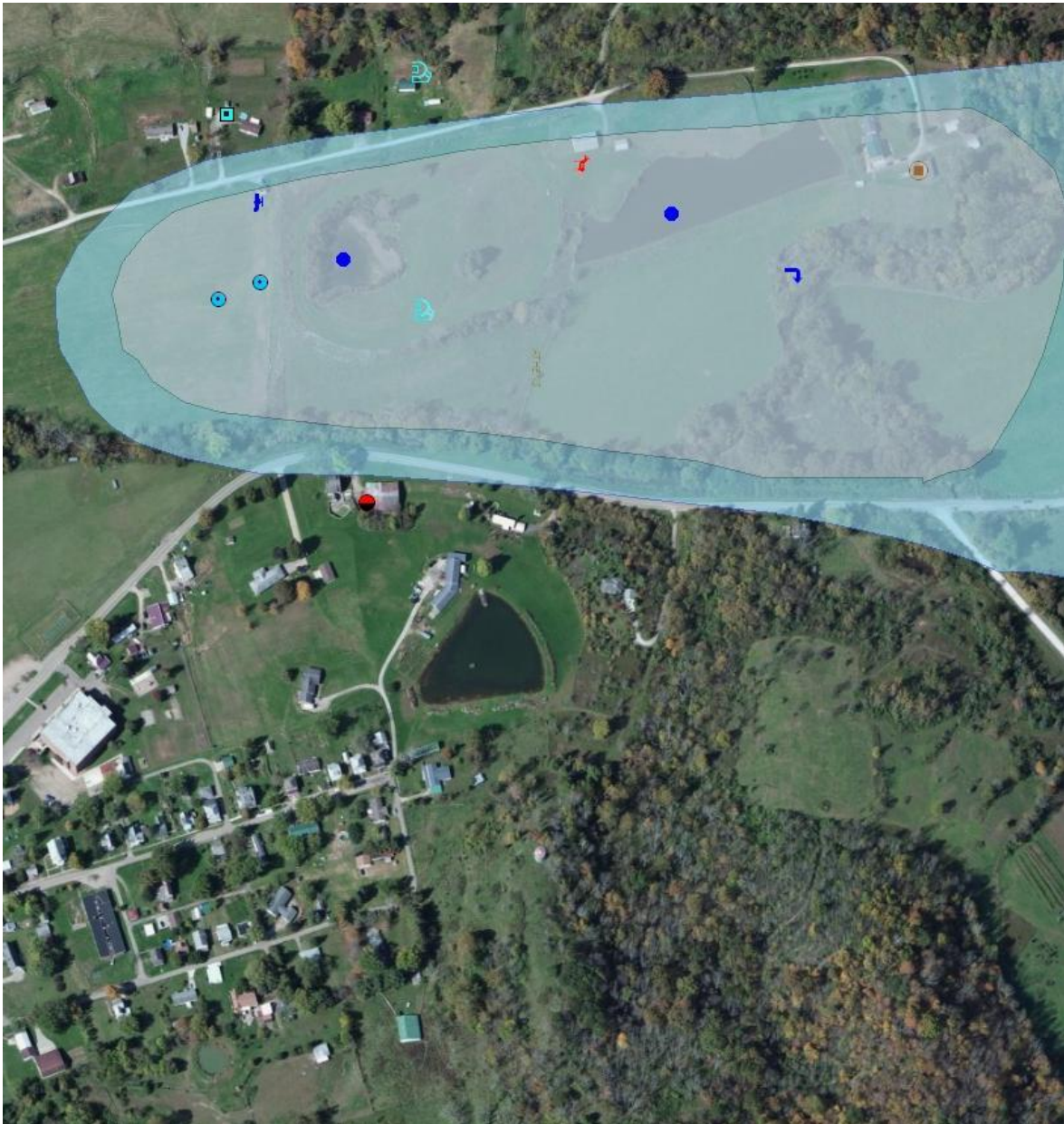


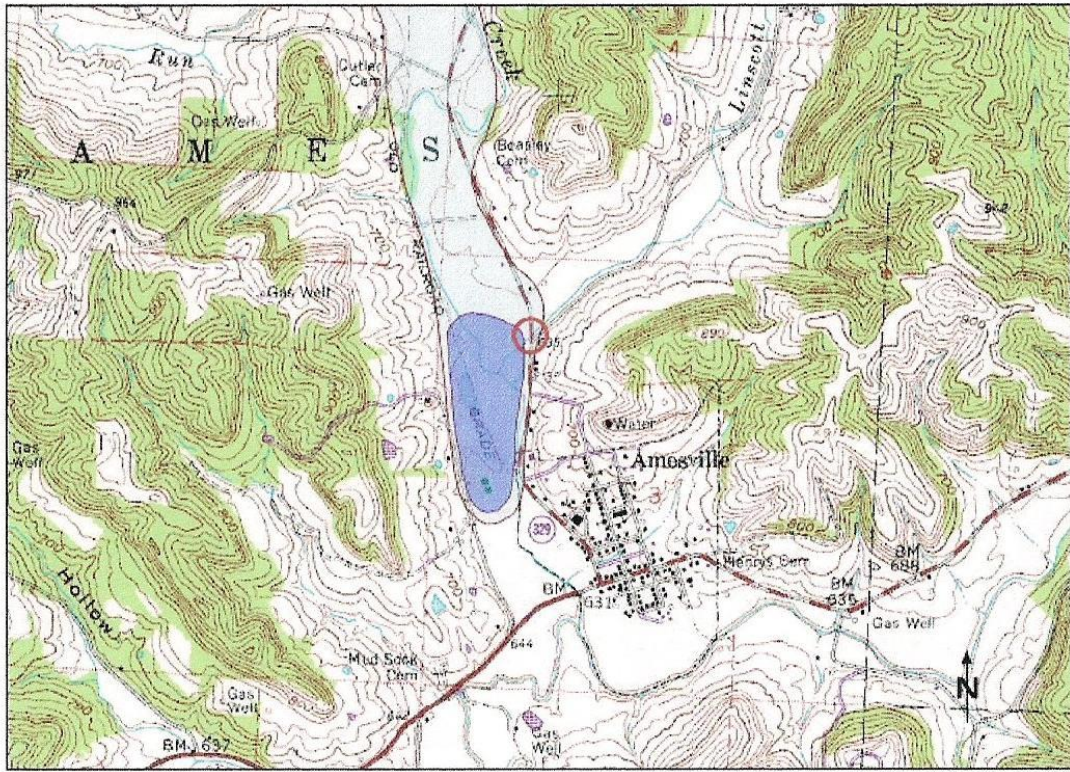
Tom McGuire
Fiscal Officer

Appendix C

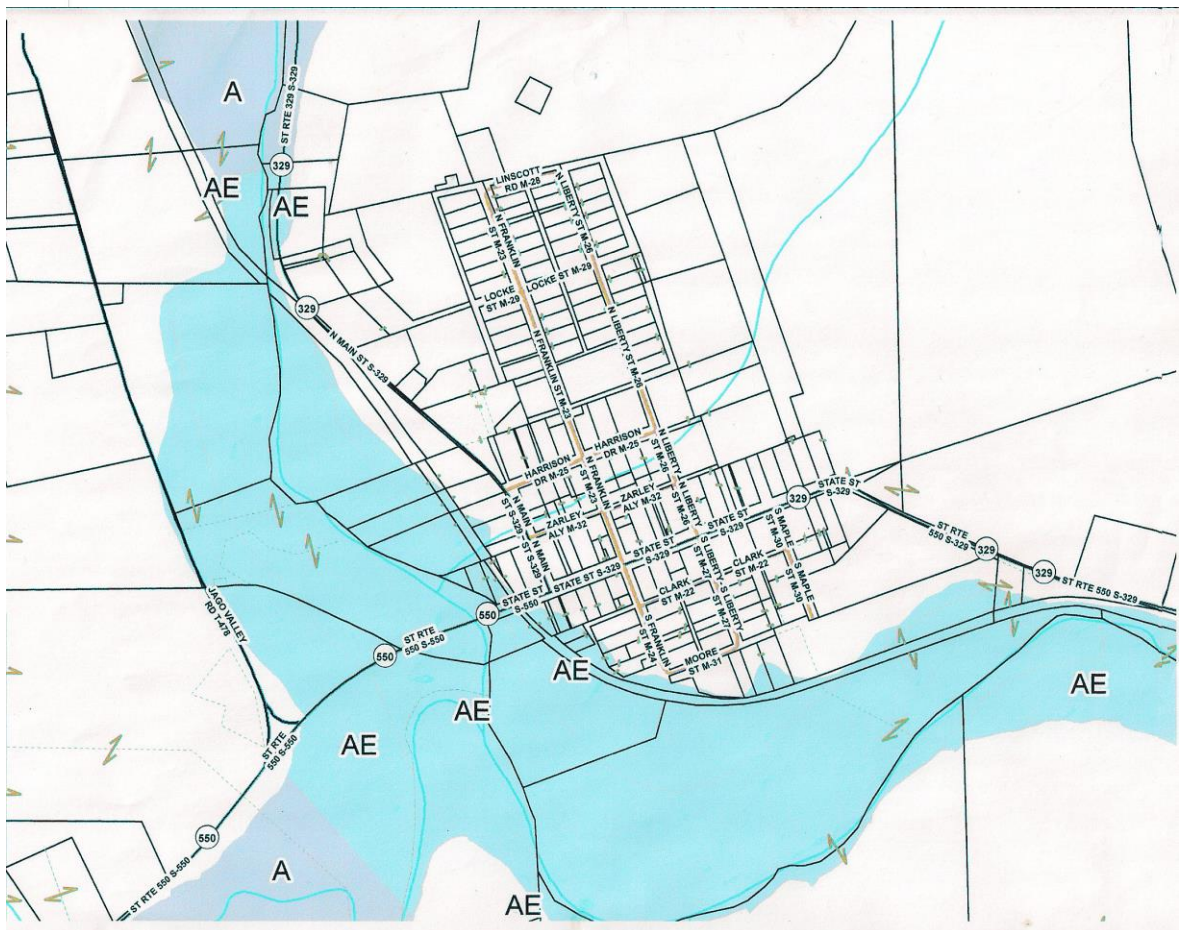
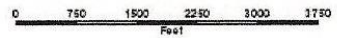
Education and Outreach Material

- 1) Source Water Protection Brochure (Attached)
- 2) *BMPs for Agriculture in SW Protection Areas*
- 3) *Septic System Maintenance Information*





5 year time travel for Amosville Public Water System



Appendix D

Oil and Gas Reference Information

- 1) Well database in Source Water Protection Area
- 2) Ohio EPA/ODNR/ODH Fact Sheets