



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

September 2, 2014

**RE: VILLAGE OF MORROW
WARREN COUNTY
COMMUNITY PUBLIC WATER SUPPLY
PWS ID #OH8300912**

Mr. Mike Erwin
Mayor
Village of Morrow
150 East Pike Street
Morrow, Ohio 45152

Dear Mayor Erwin:

On August 21, 2014, Jeff Stark and I met with you, Mr. Rod Smith, Mr. Mike Hanna of the village of Morrow, contract operator, Mr. Phil Kauffman, Jones-Warner Consultants, Mr. Richard Warner and Mr. Shawn Campbell, Environmental Engineering Services consultants, Mr. Steve Canter and Mr. Chuck Dragga to discuss issues facing the Village's water supply and treatment system. The following issues were discussed that directly impact the village of Morrow's public water system and if ignored, could adversely affect the Village's ability to provide safe and adequate amounts of drinking water to its service area.

- Lack of an emergency connection with an approved water supply.
- Water treatment facilities may have reached the end of their design lives resulting in an immediate need to upgrade or even replace infrastructure to avoid a disruption to water service.
- Red water complaints associated with the operational challenges in meeting the iron secondary maximum contaminant level of 0.3 mg/L in the finished water, this condition is mainly due to the fact that Plant 2 is off-line because the sand media in the filter has become cemented.

Emergency Alternative Connection

Since the August 21st meeting, the village of Morrow had a special Council meeting on August 26, 2014, to discuss an emergency connection with the Western Water Company. Council voted 5-1 to approve the connection. This is an important first step to ensure the residents have water available during times of plant failure, drought and other critical situations. It is important that the Village continue moving forward as expeditiously as practical to secure this connection and have it available if the need arises.

Plant Structural Integrity/ Filter Media Replacement

During the August 21st meeting, a visit was made to the village treatment plant. Concrete cracks and exposed enforcing steel rods, as well as, metal corrosion were observed from the more than 70 year old water plants. It appears, structurally, both water plants are approaching the end of their operational life. However, at this time it has been determined that Plant 2 will only require modifications to its structure prior to replacing the filter media. No structural work will be conducted at Plant 1. Treatment components and plant equipment maintenance have been poorly maintained or neglected. Ohio EPA encourages you to conduct a full evaluation of its treatment facilities to ensure they are structurally sound and in good working order.

Facility conditions are such that in order to replace the filter media for Plant 2, additional concrete pads and steel support beams have been installed to reinforce the filter vessel floor. Without the floor reinforcement, the floor could potentially collapse during the media replacement.

Presently, the village has only one functioning sand filter to remove iron solids for the residents. The village struggles to meet the iron secondary maximum contaminant level (SMCL) of 0.3 mg/L. During the month of July 2014, finished water iron levels ranged from 0.3 to 0.7 mg/L. Not only is the village having difficulty meeting the iron SMCL with only one operational filter, the village is unable to adequately flush any accumulated iron solids from its distribution system and maintain water supply without adversely affecting system pressure until both water treatment plants are repaired and normal operational level is obtained.

The village plans to flush its distribution system when both filters are operational. The village anticipates the new filter media for Plant 2 to be installed in the first week of September 2014. Once the filter media is replaced in Plant 2, the filter media will be replaced in Plant 1.

Addressing Rusty Water Complaints

The village of Morrow and this office have received complaints about their drinking water. The complaints mainly consist of discolored red water and ruined laundry from the iron precipitate. The village has made available, "Red-Be-Gone" to help minimize the iron stains in the laundry. While the village is taking steps to improve conditions at the water plants, helpful updates and information should be relayed to its residents. The village should take this opportunity to rebuild confidence that it is working to resolve the iron issue and that the water quality will improve.

In addition to addressing the structural issues to Plant 2 and replacing the filter media, the Village should determine the operational life of its overall water plant facility before a major failure occurs. In addition, the village is encouraged to evaluate the most cost effective option for a permanent connection with an alternative water supply, build a new water plant or begin renovation of both water plants.

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We believe, because of the age of the plant, current conditions and treatment requirements, significant capital may be necessary to construct or upgrade the facility. The village is encouraged to investigate all funding avenues. Loan money is available thru our Drinking Water State Revolving Fund (SRF) Program or other state lending programs. These programs do take time to process the applications and gather the appropriate information. The village is encouraged to begin this process now. Ms. Monica Hogan of our Central Office can provide you with information to begin the process.

Please provide a written response to this letter by September 30, 2014, regarding the status of the alternative connection or the signed copy agreement with connection location and supply capacity.

In addition, please provide a written response to improvements to the facility and any other future treatment considerations such as softening or plans to construct a new water treatment plant.