

DRAFT
STATUS OF SURFACE WATER SYSTEMS IN GNWWWC AREA

[1]BETHANY

Bethany obtains water from 3 lakes, with source capacity of 1.4 MGD. The treatment capacity is 1.0 MGD. The Consumption is currently averaging 0.325 MGD, with a maximum use of 0.706 MGD. They are furnishing some water to Harrison Co. PWSD #2. They are somewhat short on treated water capacity at the water treatment plant.

With continued aggressive operation they should be able to comply with current and anticipated regulatory requirements. There is some risk of disinfection byproducts violations if they should have a serious raw water quality fluctuation of any treatment lapse.

[2]BRECKENRIDGE

This system utilizes a small reservoir and a shallow well as a source of water. Source capacity is marginal, and the small lake can create some treatment issues.

In recent years due to a change of land ownership the adequacy of the source is in question. Water is allowed to be drawn off the raw water line thus creating serious issues treatment issues, due to changing the amount of water flow, but no way of knowing when this will occur thus creating the condition of improper rate of chemical application for proper treatment.. The land owner can take 1000 gallons per day at no cost.

The secondary basin, filters and clearwell are quite old and not in great physical condition.

The city council had twice unofficially decided to purchase water from Livingston County PWSD #4, but never followed through with the plan.

This system will need to make major additions to the facilities within a few years or purchase water from another source.

The city of Gallatin is proposing to build a new water treatment plant, and there has been some discussion about the potential of selling water to Breckenridge through Daviess Co. PWSD #2 which now purchases a small amount from Breckenridge and the district has a standpipe on the property where the city reservoir is located.

[3]CAMERON

The source is 3 reservoirs with a firm capacity of approximately 5.76 MGD, treatment capacity of 2.8 MGD, average consumption of 1.6 MGD, and a maximum consumption of 2.1 MGD.

The city will need additional capacity within a few years which will require either providing a complete new treatment train, or purchasing treated water. Due to the nature of existing facilities I believe it would not be practical to attempt an expansion. Also, the city is experiencing issues with meeting the disinfection byproducts(HAA5) requirements, and are currently in violation for the first quarter of 2009.

[4]DAVIESS CO. PWSD #3

This system utilizes the privately owned Lake Viking as its source of water. There is ample raw water to sustain the system, which serves only the limited area of Lake Viking.

The treatment system has been expanded and upgraded several times. Average consumption is only about twenty five percent of capacity, but maximum is very near plant capacity.

[5]HAMILTON

The source of water is one reservoir and a pump station on an intermittent stream. The city experiences periods of reduced raw water capacity and quality with any degree of drought. Firm capacity of the reservoir barely meets the average daily consumption.

The treatment plant by design is challenged to produce water that meets regulatory standards.

The system will most likely in the not too distant future need to augment their capacity through providing additional source water or purchasing treated water from another source.

[6]HARRISON CO. PWSD #1

The source of water is an SCS lake that is nearly silted full, that has been provided with an overflow to an upland reservoir.

The source is highly susceptible to drought, and water quality provides unique treatment challenges. Water treatment facilities are marginal creating issues with meeting maximum contaminant levels.

This system has regulatory issues, and is expected by the Department of Natural Resources to terminate operation and connect to another source as soon possible.

[7]JAMESPORT

The source of water is a small reservoir that is not able to sustain adequate water during any prolonged drought.

The treatment is marginal considering the raw water quality and ever more stringent regulatory requirements of water quality.

The city is currently working toward purchasing water from Livingston County PWSD #4, and discontinuing the use of their water treatment plant. It appears the city will be building a new elevated storage tank to replace the old stovepipe riveted tank with a larger and taller tank.

[8]KING CITY

The source of water is four small lakes with a firm yield of 0.128 MGD, average consumption of

0.100 MGD, and maximum day use of 0.156 MGD, and a treatment plant capacity of 0.300 MGD. The source is questionable during any extended period of drought.

The system is currently well operated and maintained, and meeting water quality standards. The system should be able to provide acceptable water at its present rate, but is not able to provide beyond its 0.128 MGD firm yield source.

[9]MARYVILLE

This system utilizes Mazingo reservoir as a source and has a water treatment plant that utilizes a high rate settling system and vacuum membrane filtration system. They have a capacity of 5.0 MGD with average production of 2.8 MGD, and a maximum production of 3.2 MGD.

The treatment system has some unique operational challenges. The system design did not meet original expectations and required the addition of additional filtration modules to meet the design capacity. The membranes life expectancy is less than anticipated, thus increasing operational costs.

The treatment system is currently operated by a contract operator not city employees.

[10]MAYSVILLE

The water source for the system is 3 small reservoirs. There have been serious issues with silting which reduces storage capacity and may affect raw water quality and cause additional treatment difficulties.

The treatment system has been marginal in producing water that meets regulatory requirements. The city has for many years had difficulty in providing qualified operational staff and retaining them.

[11]MIDDLE FORK WATER COMPANY

The source is one small lake and an upland reservoir. The source is not adequate for periods of extreme drought. The source has a firm yield of 0.381 MGD. The average use is 0.335 MGD, and maximum use of 0.497 MGD, and a plant design capacity of 1.0 MGD.

Average consumption is 88% of safe yield, therefore putting pressure on the system to provide good quality water that is amenable to being good quality source water.

The treatment system has some challenging operation issues in order to meet water quality standards.

[12]PLATTSBURG

The source of water is Smithville Reservoir. This provides the city with 10.5 MGD of raw water. The plant capacity is 1.5 MGD, with average production of 0.93 MGD, and maximum production of 1.2 MGD

The raw water quality provides some highly challenging treatment issues. It will continue to provide treatment challenges in order to meet current and anticipated regulatory requirements.

Plant capacity will be unable to keep up with demand and expansion will be needed or they will need to purchase supplemental treated water.

The city recently voted bonds to expand the treatment plant capacity.