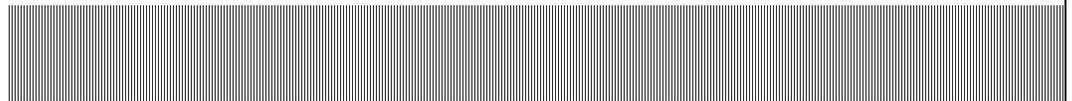


Appendix A

Telephone Conversation Logs



Phone Conversation Log

Date: 4-22-09

Locality/Water System: Manchester

Contact: Steve Miller, Town Manager

Phone No: 410-239-3200

Email: sl_miller@comcast.net

Existing Source(s):

- 12 wells, one spring (Hillside Spring) and 10 pump stations
- Water treated at pump stations and sent to distribution system
- Three storage tanks (one brought online in the last four months)

Future Source Alternative(s):

- Continue to rely on groundwater to serve future growth – develop new wells as development takes place.
- Complete rehabilitation of Walnut Street Spring and Lippy Well
 - Rehab of the Walnut Street Spring will likely occur in the next few years.
 - Well field being developed in conjunction with the Carroll County Board of Education – 2 new wells plus the Lippy well should be in operation by November 2009, including nitrate treatment.
- Interconnection with York Water Company in York, PA
 - Manchester has had discussions with YWC in the past about purchasing water through an interconnection. Manchester wanted to purchase 50,000 – 100,000 gpd, but YWC said there was a minimum 150,000 gpd purchase required. Discussions stopped there.
 - Other issues: Transmission mains to the MD border + pump station to be paid for and installed by YWC. Mains from MD border to Manchester to be installed by Manchester. Town worried about maintenance of ~6 miles of pipe outside of their service area plus the requirement for fire hydrants along pipeline.
 - This alternative is still considered a viable option if details can be sorted out.
- Prettyboy Reservoir
 - Considered a potential option for the Town (after the interconnection)
- Union Mills Reservoir could serve as supplemental source
 - Confusion between Manchester and County – Manchester not sure if they would be receiving raw water from the reservoir that they would have to treat, or if they would be supplied treated water from a new County WTP.

Phone Conversation Log

Date: 4/27/09

Locality/Water System: Westminster

Contact: Jeff Glass, Director, DPW

Phone No: 410-848-4381

Email: jglass@westgov.com

Existing Source(s):

- Cranberry Branch/Cranberry Reservoir: 30-in transmission line to Cranberry WTP
- Surface water intake on the West Branch of the Patapsco (Hull Creek): 14-16-in gravity transmission line to Cranberry WTP
- 2.0 mgd combined appropriations permit from two surface water sources. **The appropriation from these two sources was reduced to allow emergency withdrawals from Medford Quarry. Appropriations are 1.838 mgd AAD and 3.0 mgd max day.**
- Koontz well – used for flow augmentation. **Still in use (500,000 gpd AAD)**
- Eight wells in service (Well 4, Well 6, Well 3, Well 5, Well 7, Wells 9 & 10, and Well 8). Wakefield Valley (Wells 1 & 2 – Wakefield wells). **All still in use.**
- **Permanent emergency connection of the Medford (Genstar) Quarry – connected to existing system. According to Mr. Glass, this connection has been made, and lines are currently being tested. Anticipated to be ready to go in about one month.**

Future Source Alternative(s):

- Continue well development
- Raise water elevation/increase capacity of Cranberry Reservoir
 - **There are two ways of doing this that the City has looked into – purchasing additional property to increase the surface area of the reservoir or raising the dam by one foot to increase the volume vertically. City ran into many political and land owner problems with purchasing land to expand the reservoir horizontally. Raising the dam is still a viable option, but they had some leaks in the existing dam – fixed them – found more leaks and fixed those. They have not done anything more with pursuing the dam raising alternative. Both options COMBINED would not provide enough supply to meet their needs.**
- **Hyde's Quarry as a raw water reservoir – need a pipeline to connect to the Medford line. This would serve as a backup to Little Pipe Creek intake, but it is located downstream of WWTP and MDE is concerned that the water in the quarry is under the influence of WWTP effluent. Currently, MDE and Westminster disagree on the method of testing to prove/disprove that this is happening.**
- **Roop's Mill Well – adjacent Roop property development – currently under construction and is expected to be operational by July/August 2009.**

Phone Conversation Log

Westminster, continued...

Date: 4/27/09

Locality/Water System: Westminster

Contact: Jeff Glass, Director, DPW

Phone No: 410-848-4381

Email: jglass@westgov.com

- Well on Dutterer property (City acquired) – no longer an option. This is within the same watershed, so they would not expect to receive an appropriation permit for this well without reducing appropriation from another source.
- Union Mills Reservoir – long term option. Ties in with Big Pipe Creek intake.
- Wells and intake from Big Pipe Creek in the Union Mills area – located near intersection of Route 97 and Sawmill Road. Plans for this alternative include starting with groundwater wells in the vicinity of Union Mills reservoir, and pumping water down to connect into the Medford line (connection already in place). Once approved, they plan to install a 2 mgd surface water intake on Big Pipe Creek, potentially along with a small offline reservoir. This alternative would already have infrastructure in place to support construction of the Union Mills reservoir for long-term supply. Westminster has applied for stimulus money for this project and hope to move forward with it.
- New surface water intake on Little Pipe creek – this potential alternative involves a 350 gpm intake on Little Pipe Creek, near the intersection of Route 31 and Old New Windsor Pike. Hyde Quarry would serve as a backup to use during low flow periods.
- Gaselle Well – has been drilled, tested and is undergoing the first round of water quality testing, which look good so far. Estimated yield of 300 gpm.
- Conversion of Koontz Creamery well to potable supply - an option investigated 3 or 4 years ago, by Carroll Land Services at the request of MDE and paid for by the City. The study evaluated options of on-site treatment, pumping directly to the water plant for treatment, and pumping to the Cranberry reservoir. On-site treatment resulted in an extremely high cost per gallon as it is 1. under the influence of surface water and will need to be filtered, 2. Contaminated by hydrocarbon and will need to be treated for VOC/packed tower etc. 3. Is high in Nitrate and will need ion exchange treatment. It was virtually more economical to buy bottled water than treat the Koontz well for direct pumping to the distribution system. Pumping to the plant or Reservoir. Very expensive due to miles of pipeline needed. The result of the study was to keep using the well as augmentation for the water plant, by pumping into the stream that feeds West branch Patapsco.

Phone Conversation Log

Date: 4/29/09

Locality/Water System: Hampstead

Contact: Roger Steger, Superintendent AND Ken Decker, Town Manager

Phone No: 410-239-6659 (Roger); 410-239-7408 (Ken)

Email: hampwork@comcast.com

Existing Source(s):

- 17 wells – chlorination and pH adjustment
 - They have been operating with 12 out of the 17 wells due to water quality issues (mainly nitrate).
- 3 storage tanks (100,000-gallon, 500,000-gallon and 400,000-gallon)

Future Source Alternative(s):

- Continue to rely on groundwater sources
 - Two existing wells and two new wells are currently being housed in a pump house and are getting ready to be tested. The design of the pump house, etc. is currently underway. The new wells should yield ~85 gpm combined.
 - Also looking at obtaining well at Oakmont Green Golf Course
- New well development focused on water quality as much as quantity
- Interconnection with York Water Company in York, PA
 - This option is still a possibility if Hampstead and Manchester purchased water together to meet the 150,000 gpd minimum from YWC.
- Prettyboy Reservoir
 - This option is also still a possibility, but the need does not exist at this time for such a large quantity of water. Again, regionalization may make this more of a realistic option.
- Other notes from conversation with Ken Decker:
 - MDE has no regulations for water reuse in MD. Ken thinks it may be difficult to get a water reuse project permitted.
 - Hampstead is approaching build-out, so their demands may not warrant large-scale supply projects. They feel more comfortable with increasing capacity in small increments via new groundwater wells.
- Mr. Decker has concerns that state agencies do not want growth in any areas outside of the Baltimore Beltway, so large scale projects may have a hard time being permitted in Carroll County.

Phone Conversation Log

Date: 4-22-09

Locality/Water System: Taneytown

Contact: Rick Weaver, Director, DPW

Phone No: 410-751-1100

Email: rjweaver@taneytown.org

Existing Source(s):

- Currently using seven municipal wells
- Chlorination at pump houses
- Issues with PCE levels in Well 9 and Well 13 – carbon filtration may be needed to treat water from these wells.
 - According to Mr. Weaver, Well 13 is offline due to radio nuclide contamination problems.
 - Carbon filtration treatment was added to Well 9. This well should be online in a couple of weeks, bringing the number of Taneytown's well sources to eight.

Future Source Alternative(s):

- Expand production capacity of existing wells to overcome deficit from contamination of Well 13.
 - Taneytown recently drilled a new well, and drilled an existing well deeper. The pump tests from the new well show 400 gpm, but the appropriation permit has not been filed yet.
- 1.5 mgd surface water source, likely on Big Pipe Creek in vicinity of MD140. Would also require a new WTP. According to Mr. Weaver, this alternative is likely 5 to 7 years in the future.

Phone Conversation Log

Date: 4-22-09

Locality/Water System: Mt. Airy

Contact: Tom Roberson, WTP Supervisor

Phone No: 301-829-2674

Email: troberonwwtp@fwbnet.net

Existing Source(s):

- Ten wells supply Town, unincorporated areas are on individual wells. Main well field is in Frederick County.

Future Source Alternative(s):

- Gillis Falls Reservoir – considered by Town of Mt. Airy to be a long term alternative. In order to meet the consent order, they need to find new sources immediately.
- Wells in vicinity of Gillis Falls (temporary)
 - To satisfy consent order, Mt. Airy is actively drilling wells. They have drilled 28-30 wells in the vicinity of Gillis Falls. They are looking to develop 1 or 2 wells in this area, but are currently waiting on water quality testing/pump testing. Groundwater wells are their 1st choice to meet their needs.
- Surface water intake in the vicinity of Gillis Falls
- Interconnection with Frederick County
- According to Mr. Roberson, the Town's next choice is either a surface water intake in the vicinity of Gillis Falls (see H&S report) or an interconnection with Frederick County. The interconnection point is only ~ 5 miles from the Carroll County border.

Phone Conversation Log

Date:**Locality/Water System:** New Windsor**Contact:** Wally Brown, Town Manager**Phone No:** 410-635-6575**Email:** WBrown@NewWindsorMD.org**Local Plumber with System Knowledge:** Jack Coe**Cell No:** 443-398-0321**Email:** actionj@qis.net**Existing Source(s):**

- Springs and wells supply municipal water system – several under the influence of surface water, so they are not utilized.
 - Have 6 or 7 wells, 3 or 4 under influence of surface water
 - Currently using 1 well and 1 spring

Future Source Alternative(s):

- Develop additional groundwater wells
 - Town is almost at buildout because they are landlocked by conservation and agriculture preservation lands. Two developments are currently planned, and then they are “pretty much done” according to Mr. Brown.
- Lehigh Quarry
 - This quarry will not even be developed for a few years – at least 10 years until there is a “hole” to begin dewatering. It is estimated that this could potentially be used as a source in 20-40 years if needed.

Phone Conversation Log

Date: 4-22-09

Locality/Water System: Union Bridge

Contact: Mayor Bret Grossnickle

Phone No: 410-775-2711 (Town Hall)

443-340-9266 (Cell)

Email: bretgrossnickle@hotmail.com

Existing Source(s):

- Two wells supply system – West Locust Street and Whyte Street. Both are tied into a new 0.30 mgd WTP
- Third well housed in a new WTP – online in 2006 (?). **According to Mr. Grossnickle, this well (Phillips Well) belongs to the developer and is not in use. This well is not expected to meet buildout demands of this new development, and the timing of when this well will be on line is unknown at this time.**

Future Source Alternative(s):

- Rehabilitate Well #1 (West Locust Street Well) in 2006. **According to Mr. Grossnickle, this well has not been rehabilitated because they could not take it offline without having a third well (Phillips Well) available.**
- Bowman property – new well, appropriation permit pending. **This well will supply a new development, but does not provide enough supply to satisfy buildout demands of the development.**
- Lehigh Quarry as a raw water reservoir. **Mr. Grossnickle does not feel like this is a viable option, so long as the quarry is in operation due to the large potential for contamination. The quarry currently uses this water as cooling water.**

Phone Conversation Log

Date: 4-22-09

Locality/Water System: Sykesville/Freedom

Contact: Frank Schaeffer, Dep. Director, Carroll County DPW

Phone No: 410-386-2035

Email: fschaeffer@ccg.carr.org

Existing Source(s):

- Purchase water from the Liberty Reservoir (max 6.0 mgd) – treated at County’s WTP on Oakland Road. **According to Mr. Schaeffer, the Liberty WTP has been expanded to 7.0 mgd and is currently online.**
- Fairhaven Well 22B – 0.227 mgd annual average (max month 0.340 mgd)
- **Also have another well, Well RC1 (Raincliffe Center area), with an AAD of 0.211 mgd**

Future Source Alternative(s):

- Develop additional wells in the Freedom area including those at Springfield Complex and Freedom Park. **According to Mr. Schaeffer, there are three additional wells that may be pursued by Freedom WD, but no agreements are currently in place. These wells have not yet been developed.**
- Piney Run Reservoir – build WTP. Also alternative including raising dam to increase capacity. **Mr. Schaeffer explained that this alternative is a political hot button issue. In the past, when they evaluated expanding the Freedom WTP on Liberty Reservoir, they also looked at using Piney Run Reservoir as a water supply source, with construction of a new WTP. Previous evaluations chose the Freedom expansion as the preferred alternative (and it has since been expanded). Current plans for the existing service area DOES NOT include use of Piney Run. Using Piney Run Reservoir as a source would only become viable if the service area expanded AND capacity was running out at the Freedom WTP.**