

WATER SYSTEM COMMITTEE
MINUTES OF February 19, 2009

Town Hall Annex
5 Highland Street
Main Conference Room

Meeting Opened: 5:00 p.m.

Members Present: Miller Lovett (Selectmen's Representative), Brian Carroll, Jonathan James, John Edgar, David Thorpe.

Absent: None

Others Present: Paul Anderson, Dan Cornelissen, Tim Goodheart.

Approval of Minutes: Minutes of the January 8, 2009 and January 20, 2009 meetings were approved as presented.

New Business:

- Water Treatment Plant Update – Brian Carroll reported on the current status of the treatment plant capacity assessment and operations improvement program which is ongoing:
 - See minutes of the January 19, 2009 meeting for details about ongoing upgrades. Most items remain approximately the same.
 - It has been determined that the emergency generator system is not capable of powering the plant at full capacity operation. Details of cost and equipment required to correct this will be generated soon.
 - Contracts are to be let soon for upgrading the filter bed effluent piping, for repairing one raw water pump and for replacing two raw water pumps.
 - Brian is now keeping 2009 plant operation and water production data in a format that allows comparison to the same periods of time in 2008. Significant reductions in operating hours and water production are being experienced year to year.
 - Similar records will be maintained soon for electricity consumption.

- Review of unaccounted-for loss history and selection of number to be used for future demand forecasting:
 - Dave Thorpe presented 4 years of quarterly data of unaccounted-for losses along with several variations in methods of summarizing the data.
 - The committee agreed that based on history, 30% would be used for the current demand portion of future demand forecasts.
 - The committee also agreed that additional future demand did not require a loss rate that high because many of the causes of unaccounted-for losses would not increase such as hydrant flushing, DPW use, fire truck refills, etc. Therefore the committee agreed to use a 10% loss factor for additional future demand.

- Dave presented the latest version of the “Available Spare Capacity” report.
 - Using the methods agreed upon in the January 20, 2009 meeting and current plant capacity of 86% of rated capacity:
 - For average day demand there is 275,000 gallons per day (gpd) spare capacity and for maximum day demand there is 8,200 gpd spare capacity.
 - When the plant is returned to rated capacity those numbers become 385,000 gpd and 118,000 gpd respectively. With much larger portions of the storage tank now being used regularly, the committee feels there are no concerns about the ability to produce sufficient water to satisfy the needs of the town even with the present reduced capacity. However the committee strongly recommends that the plant be returned to rated capacity as soon as practically possible.
 - It was noted that the Available Spare Capacity report of April 2008 which showed 9,000 gpd available spare capacity against maximum day demand, was based on the plant being at rated input capacity of 1 million gallons raw water input per day. Records show the plant actually was only capable of producing 72% of rated capacity at that time which would give available spare capacity on an average day demand basis of 172,000 gpd and 218,000 gpd **negative** available spare capacity on a maximum day demand basis. The current plant capacity is now 19% (126,000 gpd) greater than it was in September 2008.
 - Dave showed a revised “Available Spare Capacity” report making it a 2-year forecast by quarter, displayed in graphical form with the raw data as well. Increases in residential and business demand would be estimated and shown by quarter giving a much more realistic view of demand vs. capacity. Similarly existing demand would be shown as an average of the past 36 months but by quarter rather than by year thus showing typical maximum quarters more clearly. Miller Lovett asked if this analysis could be shown for 5 years and presented soon to the Board of Selectmen. The initial reply is yes, but with the possibility that the most prudent format may be the first 2 years in quarters and the last 3 years by year. John Edgar and Dave will generate the draft 5 year demand soon and give Miller a reply within 2 weeks. The committee will review this proposed 5-year report at the next meeting on March 19, 2008.
- Dave also showed the first 20-year demand forecast with the recently agreed usage rates, peaking factors and unaccounted-for loss factors. This report was reviewed rather quickly but the initial conclusions show the need for increased capacity between the years 2020 and 2022. These years are subject to change depending on whether the service area is allowed to expand into Rt. 3 South and whether all requests for new services in the current area are allowed. The committee will also discuss these and other “policy” issues with a goal of making recommendations to the Board of Selectmen in the future.
- Progress on the distribution system analysis which Brian Carroll and Jonathan James are generating was briefly reviewed. This analysis will be overlaid with similar sewer system and DPW road system studies to look for co-incident needs

and issues to help determine priorities and reduce costs on projects with joint responsibility.

Meeting Adjourned: 7:15 p.m.

Next Meeting: March 19, 2009, 5:00-7:00PM, Town Hall Annex

Respectfully submitted,
David Thorpe