



# CITY WATER UPDATE

July 2014

## City invests to address water quality

After research, evaluation and discussions dating back to 2008, the Elko New Market City Council has authorized construction of a central water treatment facility to address state-regulated water standards and residents' desire for improved water quality. The Council also approved reconditioning of the Elko water tower as part of the overall project.

As communicated in previous City newsletters, the City's water supply, left untreated, currently exceeds allowable radium levels, a naturally occurring metal that can be harmful to people who are exposed to it over a long period of time. The City now treats two wells regularly to remain within allowable radium levels, and a third has been taken offline. Localized treatment at these individual wells is expensive, and key components of those wells are approaching the end of their design life. This, combined with residents' complaints about water taste, appearance and iron levels, caused the Council to consider all available options to address water quality and approve the central water treatment facility.

"Consistent with the problem-solving component of our Community-Oriented Local Government philosophy, the Council has carefully considered every alternative and facet of this project to choose the most cost effective, best outcome for all residents well into the future," said City Administrator Tom Terry. "The City has been discussing this issue for several years and has determined a central water treatment facility is the best alternative for our community."

## Central treatment facility has many benefits

A central water treatment facility is the most sensible option and one that most neighboring cities have chosen as the best path forward to address water quality and water standards, according to Seth Peterson, P.E., Principal Engineer with Bolton & Menk, the engineering company overseeing design and construction of the facility. He said, "Most growing cities with a long-term view choose a central water treatment facility because it is most cost-effective, provides excellent water quality and minimizes maintenance costs over time."

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*Seth Peterson, P.E.  
Principal Engineer  
Bolton & Menk*

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Rank of water quality as the most serious issue facing the City as identified by residents in the 2012 community survey.

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# Project Timeline

April 2008	2030 Water Plan indicates need to address radium and water quality
September 2008	Pilot plant study on filtration media and dosing conducted
	Preliminary Design Memorandum presented to Council
November 2009	Analysis of potential central water treatment facility sites presented to Council
October 2012	Localized filtration options for one Elko well discussed by Council
December 2012	Central treatment facility at France Avenue discussed by Council
February 2013	Central treatment facility with reverse osmosis treatment and rehabilitation work on Elko water tower discussed by Council
May 2013	Water Action plan presented to Council
	Development of central water treatment facility design report authorized
June 2013	Land acquisition and geotechnical services for France Avenue site approved
July 2013	\$200,000 rehab of Elko water tower approved as part of water treatment project
	Design report for central water treatment facility accepted by Council
September 2013	France Avenue location determined to be unsuitable for facility. Two other finalist sites explored.
October 2013	Public Works campus chosen for facility
January 2014	Plans and specifications for central water treatment facility submitted to the Department of Health
July 2014	Construction contracts awarded
August 2014	Construction to begin
December 2015	Construction completed
2016	Facility put into operation

## Radium vs. Radon

**Radium** - a naturally occurring radioactive metal present in extremely small amounts in soil and rock formations. Because it can infiltrate aquifers from which residential water is drawn and poses health concerns after prolonged exposure, the EPA limits allowable amounts in public water supplies and monitors public wells regularly.

**Radon** - a naturally occurring radioactive gas that is a byproduct of radium breaking down as it becomes lead. The EPA has no standards for radon in drinking water. The gas can be a concern in poorly ventilated dwelling spaces, such as basements.

## Is my current water safe?

Yes, your water is safe and will continue to be. The City's water supply is well maintained, monitored and treated to ensure it is within the State's water quality standards. When the central water treatment facility becomes operational, you will notice a dramatic improvement in water quality, including taste, appearance and reduced staining from iron. You may also notice the City flushing hydrants less frequently.



The architect's rendering of Elko New Market's future central water treatment facility.

## Financing the project

The City's Community-Oriented Local Government philosophy states that the City will engage in proactive and systematic examination of identified issues, evaluating effective policy decisions in light of long-term costs and benefits. It has certainly embraced this problem-solving philosophy related to the water quality issue. The Council evaluated all of its options thoroughly before approving a project of the size and scope of a central water treatment facility. While the facility is the most cost-effective means for delivering higher-quality water long term, it also has the highest initial cost.

The City has been able to secure low-interest loans from the State to fund construction of the facility. The current interest rates make this a favorable time to invest in this project and related water projects.

The City did explore grant programs to help fund the facility, however, the City did not qualify based on the community's relatively high median household income.

The project will impact residents' future water bills but the extent is still unknown. The Council has discussed several pricing models, including a tiered approach that encourages residents' to conserve water. The City will communicate rate impacts and give residents a chance to provide feedback before the new rates are adopted. The increased water rates will fit within affordability guidelines established by the State. Watch for more details soon.

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### City Council invests, continued from page 1

Relative to the many options considered by the City Council, the central water treatment facility offers:

- The lowest operational, maintenance and overall long-term costs.
- The greatest reduction in radium levels.
- A near-elimination of iron, resulting in less staining of residents' bathroom fixtures and appliances.
- Underground water storage capacity of 500,000 gallons, eliminating the need to construct another water tower.
- Capacity to serve up to 10,000 residents, with the option to expand when the initial capacity is exceeded.

Construction of the facility and laying of pipe will take place concurrently, beginning in August. The facility is expected to become operational in early 2016.

# Facility location

The City initially considered 119 different locations on which to build the central water treatment facility. Locations closest to the Elko wells, which are near France Avenue and 265th Street, were most desired because less piping would be needed to move water from the wells to the treatment facility and then into the system for use by residents. Options were narrowed to three before the City's Public Works campus on the former wastewater treatment plant site was chosen. The property is located one-half mile north of County Road 2/260th Street, east of County Road 91/Natchez Avenue.

## Site advantages

The chosen site offers many advantages:

1. The City-owned property resulted in no new property acquisition costs.
2. There is ample space to cost-effectively expand the facility as the community grows and water demand increases.
3. Its co-location with the Public Works facility will result in greater convenience and human-resource cost savings for maintenance and operations.
4. The location north of the City limits will minimize construction disruptions for residents.

## For more information:

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