

CITY COUNCIL STUDY SESSION MINUTES

October 15, 2013

The City Council of the City of Norman, Cleveland County, State of Oklahoma, met in a Study Session at 5:30 p.m. in the Municipal Building Conference Room on the 15th day of October, 2013, and notice and agenda of the meeting were posted at the Municipal Building at 201 West Gray, and the Norman Public Library at 225 North Webster 24 hours prior to the beginning of the meeting.

PRESENT: Councilmembers Castleberry, Griffith, Heiple, Holman, Jungman, Kovach, Miller, Williams, Mayor Rosenthal

ABSENT: None

DISCUSSION REGARDING THE DRAFT REPORT OF THE 2060 STRATEGIC WATER SUPPLY PLAN.

Mr. Ken Komiske, Director of Utilities, said Norman's last Strategic Water Supply Plan (SWSP) was completed in 2001, and a Request for Proposal (RFP) was distributed for interested engineering firms to prepare an update to the SWSP in late 2011. He said proposals from seven (7) engineering firms were received on December 20, 2011, and a review committee made up of three (3) Staff and two (2) citizens selected the team of Carrollo/Tetrattech as the most qualified. Mr. Komiske said Contract No. K-1112-114 was approved on March 12, 2012, and a kick-off meeting was held on April 6, 2012. He said on May 8, 2012 an ad hoc committee of 15 citizens was appointed, to provide citizen input, direction, and feedback during development of the plan.

Mr. Komiske said seven (7) ad hoc committee meetings and four (4) public meetings were held between May 30, 2012, and July 16, 2013. He said an example of items discussed and studied include historic, current, and future water demands; growth patterns; conservation efforts and potential conservation measures; existing and possible future source of supplies; the quantity and quality of these supplies; evaluation of alternatives based on economic as well as non-economic criteria reflecting the values of the community; and combining individual water supply sources into portfolios that collectively would meet Norman's long term water needs.

Mr. Komiske said Carollo Engineering developed costs for upgrading and expanding existing sources, i.e., Lake Thunderbird, wells, Oklahoma City (OKC) water, and conservation, as well as potential new water supply sources. He said viable existing and future water supply options were grouped into 14 portfolios with each supplying the 2060 average annual water demand of about 29 million gallons per day (mgd). The water supply portfolios were evaluated on a monetary basis as well as non-economic criteria. Mr. Komiske said the draft version of the SWSP was received on September 9, 2013, and has been reviewed by Staff in preparation for tonight's Study Session meeting.

Mr. John Rehring, Carollo Engineering, said tonight's presentation will include status and progress update; recommended portfolios; implementation planning for recommended portfolios; and the path forward. The SWSP planning process included two (2) phases:

- Phase I: screening criteria for source options, determining short list of viable source options, and two (2) public meetings held; and
- Phase 2: detailing and evaluating the source options, determining two (2) – three (3) preferred portfolios, and two (2) public meetings.

The water supply options include both existing and new sources. Existing sources: Lake Thunderbird (at firm yield), Garber Wellington Aquifer Wells (with treatment), intermittent purchase of treated water from OKC (wholesale) and conservation and reuse. New local sources: additional conservation, direct non-potable reuse, Lake Thunderbird augmentation (indirect potable reuse), storm water capture and reuse, Canadian River diversion, capture Lake Thunderbird spillage, and dredging Lake Thunderbird. New regional sources: co-owner with OKC for southeast Oklahoma treated water, co-owner with OKC for southeast Oklahoma raw water, Scissortail Reservoir, Parker Reservoir, and Kaw Lake.

Mr. Rehring said a relative comparison of individual source options was performed using the following criteria: supply availability, reliability, certainty and timeliness, and cost-effectiveness and scored from one (worst) to five (best). He said most of the new local sources, e.g., groundwater recharge, storm water capture and reuse, Canadian River diversion, Lake Thunderbird spillage, and dredging Lake Thunderbird were ruled out because they were not practical on a cost scale due to the fact they were intermittent sources and a lot of infrastructure and storage would need to be constructed.

Garber Wellington Aquifer Wells (with treatment)

He said the Garber Wellington Aquifer Wells option would include keeping the City's existing wells without any new capacity and would continue to be treated for arsenic. He said due to federal regulations, between now and the year 2020, it is anticipated the existing wells would need to be treated for Chromium VI. Mr. Rehring said the probable regulated Chromium VI levels would essentially affect all of the City's existing wells and he showed a proposed schematic of how the wells would be tied together within a network of piping and taken to a Chromium VI treatment facility. He said some capital costs, infrastructure, and additional operating costs will be needed to construct a treatment facility for Chromium VI.

Conservation and Reuse

Conservation was another key element of all the water supply portfolios recommended by Carollo Engineering and data was taken from the state water plan to gain a sense of what the expected range of conservation potential might be. Mr. Rehring highlighted the potential savings for Norman stating the data recognized that the City is already doing a lot with conservation.

Direct Non-Potable Reuse

Mr. Rehring said Carollo Engineering also looked at expanding the potable water reuse by taking water from the Water Reclamation Facility (WRF), which is currently being done and being used at the University of Oklahoma (OU) Golf Course. He said a network of phased water piping would be extended, delivering non-potable water primarily as irrigation to industrial water customers or reuse sights. He said this would take demand off of the potable system and reduce the mgd peak day demands, particularly in the summer.

Lake Thunderbird Augmentation

Central Oklahoma Master Conservancy District (COMCD) studied a Lake Thunderbird augmentation in 2012, and produced a report in 2013 recommending this option. Mr. Rehring said this option would involve taking water from the WRF, pumping the water over the hill into the Dave Blue Creek tributary, then pumping the water into Lake Thunderbird, and finally pumping the water out of Lake Thunderbird to an expanded water treatment facility, possibly the same site as the current WRF. He said COMCD felt this option would best augment Lake Thunderbird and increase Norman's local supply. Mr. Rehring said this is often referred to as indirect potable reuse because water is being reused from the WRF indirectly because the water goes through a natural water body before treatment and before reusing the water for potable supply. Councilmember Castleberry asked if Norman would get 100% of the water that is pumped into Lake Thunderbird and Mr. Rehring said at this time it is unknown because there is not a precedent for this option in Oklahoma. Mr. Rehring said it could be argued that Norman is putting/pumping the water into Lake Thunderbird and Norman is augmenting the water; therefore, minus the evaporation and seepage losses in the reservoir, Norman should be able to take the same amount of water out that is put in. He said there will be costs to operate and maintain the reservoir; therefore, if Norman is using water in proportion of the reservoir it might seem fair that the increase of the share would be increased for Norman. Mr. Rehring said water quality is a key concern with this option and there is the possibility of regulatory hurdles that would still need to be worked through. He said Mr. Komiske has already started the process with the state and noted that other communities, i.e., OKC and Edmond, are interested in this option too. Mr. Rehring said this option is not new on the national scale, but is new to Oklahoma. Mayor Rosenthal asked whether the City would have to enter into negotiations with the partner cities since the water that would be augmented from Lake Thunderbird is not currently covered by the current agreement with COMCD and Mr. Rehring said yes.

New Regional Sources

Mr. Rehring said for many years discussions have involved bringing in water from Kaw Lake using a shared pipeline that is currently utilized by Stillwater who already gets water from Kaw Lake. He said other potential new reservoirs include Scissortail Reservoir, which could be shared with the City of Ada; Parker Reservoir has been studied in some detail by the Corp of Engineers and COMCD has some interest in this reservoir; and Southeast Oklahoma treated water and raw water options, which was part of the Central Oklahoma Water Supply Study done in 2009, where Norman would partner with OKC as well as other metro area communities to look at diversion locations, pipeline routing, and the associated costs.

Mr. Rehring the 2040 Strategic Water Supply Plan (SWSP), completed in 2001, reflected a range of potential water demands and City Staff made interim projections which were lower than the 2040 SWSP water demands. He said Norman has done a lot with water conservation and it is reflected in the current per-capita demands as compared to historical per-capita demand. Mr. Rehring said the proposed 2060 SWSP reflects a range of water demands; however, the water demands are lower than the 2040 SWSP as well as the interim projections. He said the water demand use already exceeds local supply because the City has both a supply gap and infrastructure gap. He highlighted the annual average demand compared to the peak day demand, which showed a *supply* gap and then compared the existing annual supply without OKC to the existing peak supply without OKC, which showed an *infrastructure* gap. Mr. Rehring said key factors used for these comparisons include Norman's existing conservation measures and programs; a 10% supply reserve; service area for the City of Norman only; and the assumption that all sources will stay operational. He said further supply losses are possible due to groundwater quality issues.

Mr. Rehring said Carollo Engineering initially developed 12 different water supply portfolios that included their individual supply sources that would meet the 2060 annual average daily supply. He said based on public meeting input, as well as Council input, the criteria and relative importance (weight) in comparing the 12 water supply portfolios were community values (7%), affordability (12%), long-term supply reliability (18%), phasing potential (9%), timely implementation and certainty (15%), efficient use of water resources (17%), environmental stewardship (12%), and treated water quality aesthetics (10%). Mr. Rehring said the portfolios were narrowed down to the top five; however, when final adjustments were made to the portfolios, another two were added to the group; P13, Regional Raw Water (co-owner with OKC) and P14, new wells and Lake Thunderbird augmentation.

Carollo Engineering recommends the following three (3) supply portfolios, which include capital costs and operations and maintenance (O&M) costs per year as follows:

1. **Thunderbird Augmentation (P1)**: Discharge permitting uncertainties; efficient use of water resources; and greater phasing potential than P13. \$250 million in capital cost and \$21 million per year for O&M;
2. **Regional Raw Water (co-owner with OKC) (P13)**: Local control over treatment but contingent on OKC projects moving forward. Does not include as much phasing as P1 because it involves building a parallel pipeline from southeast Oklahoma. \$340 million in capital cost and \$23 million per year for O&M; and
3. **New Wells and Thunderbird Augmentation (P14)**: Local control over sources; discharge permitting uncertainties; efficient use of water resources; and greater phasing potential than P1 - the City can phase in the construction of the wells. \$270 million in capital cost and \$22 million per year for O&M.

Mr. Rehring said all three recommended portfolios have diverse supplies; Lake Thunderbird at reduced (firm) lake yield; active and inactive existing wells with treatment; additional conservation; and additional non-potable water reuse. He said P1 and P14 are similar; however, P14 includes new groundwater wells and P1 does not. Mr. Rehring said having diversity in supply is a real strength.

Councilmember Jungman asked how the costs for some of the portfolios are so low, but the same option used in another scenario can be much higher and Mr. Rehring said there are three different ways Norman can obtain OKC water. Currently Norman pays OKC an "as available" rate of \$5.00 per 1,000 gallons, which is a peaking rate; however, if Norman was a "more regular" customer utilizing a consistent water usage, Norman would be in a lower rate class. He said the third option to purchase treated water from OKC would be to partner with OKC financially as co-owners of the southeast Oklahoma water finance system. Mr. Rehring said through the analysis process, the preferable option was determined Norman should be a wholesale customer because it gives Norman a little bit more control over the system. He said OKC gave some direct feedback that they would much rather Norman help finance the debt rather than paying through the higher wholesale rates to OKC. He says for example, portfolio 2 was using a lot of OKC water at a much higher wholesale rate; therefore, the capital costs are low but the O&M costs are very high.

Councilmember Kovach said he is not sure he follows the logic or reasoning on the operating and maintenance costs being cheaper by being a partner over being a wholesale customer because the logic is determined by how big of a partner you are; therefore, the majority partner will make all the decisions. Mr. Rehring said there will be a lot to be negotiated in the agreements of how that would all come together and he would expect who would make decisions regarding how the system would be operated to be part of the negotiation discussions. Councilmember Kovach asked whether local control over treatment would be true for each of the three portfolios options and Mr. Rehring said yes, but the difference would be if Norman received treated water from OKC.

Mr. Rehring highlighted the key attributes of the recommended portfolios and the phased capacity increases to meet growing demand for each recommended portfolio. He highlighted comparisons of capital costs and O&M costs, stating the estimated costs are 2012 cost figures. Mr. Rehring said the costs that were used for portfolio screenings were new infrastructure required for capacity increases and new infrastructure improvements required by regulatory changes such as Chromium VI. He said when taking a look at the whole picture, there are a lot of costs that will be necessary to keep the existing infrastructure running at current capacities.

Mr. Rehring highlighted annual debt service and the O&M costs over time for P1, P13, and P14. He said initially the elements or early on costs for three recommended portfolios are common, but later on down the line when adding capacity and meeting the increases in demand the portfolios start becoming diverse from one another.

Mr. Rehring said combining all three portfolios is not the best solution or very practical. He said the next steps are to have healthy public dialogue about the recommended portfolios; update conservation plans relative to new programs such as not-potable reuse and incentives; and select an option.

Councilmember Heiple asked what would occur if Oklahoma Department of Environmental Quality (ODEQ) says no to reuse and Mr. Rehring said there is an important distinction between non-potable reuse and potable reuse stating ODEQ has already said yes to non-potable reuse. Mr. Rehring said ODEQ has designated Lake Thunderbird as a sensitive water supply source and although it is not forbidden to discharge into it the rules are fairly unclear. Councilmember Heiple asked how Lake Thunderbird became classified as a sensitive water source. Mr. Rehring said currently there are no other discharges allowed to Lake Thunderbird. Councilmember Kovach felt the City needed to make a request to ODEQ that the sensitive water shed designation for Lake Thunderbird be reduced and/or eliminated and Mr. Rehring said City Staff is currently working on doing just that.

Mr. Rehring said potable reuse is done in a lot of other places, but it is not common to Oklahoma.

Councilmember Miller said there are regulatory issues with reuse but it seems to make the most sense. She said the two issues she has with P13 are being in a partnership with another City where the balance of power would not be equal and the cost is tremendous. She said what happens if a huge amount of money is paid to build a pipeline and it does not work? Mr. Rehring said the reliability with that particular portfolio is that OKC currently has a single pipeline from the Atoka area that has been in use for approximately 60 years.

Councilmember Kovach said P13 has the most variables, i.e., lawsuits, endangered species habitats, cost projections, etc. He felt P14 is the best option being the most diversified having the higher phasing ability and the highest number of community criteria; efficient use of water resources, environmental stewardship, and community values.

Councilmember Castleberry asked why Norman should not just continue being a customer of OKC and buy water from OKC on an as needed basis. Mr. Rehring said essentially that option was portfolio 2 (P2), which scored very well in capital costs; however, P2 did not score well for the long term costs.

Councilmember Kovach said OKC has a water enterprise fund and they charge their customers to finance that fund. As a customer, Norman would be paying OKC to finance their fund and also pay for a portion of the pipeline and felt Norman would not have quality control over the water as it would with local control. Mr. Rehring said that could be a potential option and would be discussed within the negotiations. He said OKC prefers Norman be a partner not only because they do not want to float someone else's debt in principle, but also because there are concerns regarding their bond ratings. Bond ratings are judged by the total revenue compared to the total bond amount; therefore, if OKC carries Norman's debt it can begin to make the bond equations look less attractive to bond companies and bond rates would increase.

Mayor Rosenthal said this process has brought about good choices and felt it would be helpful to get additional public comment on the three portfolio recommendations before Council chooses a portfolio.

Councilmember Miller agreed and said she would like input from the Strategic Water Supply Plan Ad Hoc Committee prior to public meetings.

Councilmember Castleberry asked what the bonding capacity was for the City of Norman relative to the water fund and Mr. Anthony Francisco, Finance Director, said it would be dependent on the rate structure.

Ms. Joy Hampton, The Norman Transcript, asked whether Norman has considered any partnership opportunities with the City of Moore. She said it has been said that it would be cheaper for reuse to augment Lake Thunderbird coming from Moore due to gravity flow.

Mayor Rosenthal requested a public meeting be scheduled and Councilmember Kovach agreed a public meeting should be sooner than later.

Items submitted for the record

1. Memorandum dated October 9, 2013, from Ken Komiske, Director of Utilities, to Norman Utilities Authority
2. PowerPoint presentation entitled, "Norman Utilities Authority, 2060 Strategic Water Supply Plan, City Council Study Session," dated October 15, 2013

The meeting adjourned at 6:45 p.m.

ATTEST:

City Clerk

Mayor