

**Roxborough Pipeline Transfer  
City Council Questions  
February 14, 2017  
Study Session**

**Mayor Pro Tem Brinkman**

**Q1** – Have we identified the need to connect in the next 5 to 10 years?

**A1** – Roxborough, Platte Canyon and Littleton expect a nominal number of new connections to their systems which might be served by the shared pipeline. New connections directly to the gravity pipeline are not considered likely as adjacent areas are mostly built out. The first (approximately) 1,000 units of Sterling Ranch will connect to Roxborough's lift station, on a temporary basis.

**Q2** – Did we connect during Reynolds Landing?

**A2** – No. Reynolds Landing connected to SW Metro.

**Q3** – What do you expect maintenance costs will be going forward?

**A3** – Littleton maintenance of interceptor sewers consists of inspection about 3 times a year and minor spot cleaning. The siphon will be flushed about twice a year. Cost of this type maintenance is estimated at about \$4,000 annually. (Roxborough believes that \$4,000 annually is high as Roxborough currently spends less than \$1,500 annually for maintenance costs).

**Q4** – Can I see a 50 year projection of maintenance costs?

**A4** – Estimated costs are anticipated to remain constant for most of this period, increasing as the pipeline ages. Since the pipe is PVC, Roxborough would expect little increase in maintenance with age compared to the city's existing concrete pipes.

**Q5** – Is this the same line that was relined a few years back? It went through the Park and down through Reynolds Landing. Was this the Roxborough line?

**A5** – No. SW Metro relined their sewer about 2 years ago.

**Q6** – Can I have a timeline for worst case scenario for a line that age and what could be expected?

**A6** – Roxborough sewer is PVC pipe which has an estimated design life of 75 years. Some manhole replacement or rehabilitation is anticipated during the period due to concrete corrosion. Manholes downstream of the pressure force main, along with siphon structures, have been lined with a corrosion resistant coating. Roxborough is keeping ownership of the first 13 manholes; downstream manholes are on the Army Corp of Engineer property. These are the manholes that are most susceptible to damage from sewer gases. In addition, a blower was added to remove sewer gases from moving downstream. The blower will remain in service and will be owned and maintained by Roxborough. Damage to sewer by construction activity could occur but cannot be predicted.

**Council Member Cernanec**

**Q7** – What kind of engineering analysis has been done that indicates we are satisfied with the gravity component (flow and odor)?

**A7** – A design report was done which analyzed existing and future flow conditions. The sewer has capacity for ultimate buildout of service area and exceeds connector agreement requirements. The city approved all plans, inspected construction of the sewer, participated in all progress meetings and accepted as-built drawings. Several reports have been prepared for odor control which the city has received with no exceptions taken. Odor was noticeable when pipeline was first put in service. Initially carbon filters were tried with limited success. Roxborough has gone to chemical addition at its lift station, sealed manholes and a vent system downstream of the transition vault to the gravity pipeline. Hydrogen sulfide readings have been taken and now show very low level readings which appear to have kept odors in control. Roxborough has spent over \$1,000,000 on odor control and hydrogen sulfide reduction in the first two years after initial construction. Chemical injection will remain in service moving forward and will be owned and maintained by Roxborough.

**Council Member Clark**

**Q8** – Did council pass an IGA in 2006?

**A8** – Yes.

**Q9** – Does the agreement call for us to take ownership?

**A9** – (From Ken Fellman, City Attorney) – In 2006, it required the city to take ownership and maintenance.

**Council Member Hopping**

**Q10** – Regarding the letter (Exhibit A), who absorbs the cost savings?

**A10** – Savings referenced in the letter from the Colorado Water Resources & Power Authority will be realized by Roxborough as they will no longer be responsible for maintenance costs. Savings will be minimal due to the small amount of maintenance currently required on the pipeline.

**Council Member Cernanec**

**Q11** – The 2006 IGA does not imply the city will take on the cost of maintenance.

**A11** – Paragraph 29 of the cost sharing agreement states Littleton will be responsible for maintenance. The IGA allows maintenance costs to be allocated between the city, Roxborough and Platte Canyon in proportion to the amount of capacity each party has reserved in the shared pipeline. The city has 7.4% of the capacity in the shared pipeline. It could bill the others for almost all maintenance costs if it so decides. A very small part of annual sewer service charges to all customers, both inside and outside the city, is allocated to Littleton interceptor sewer maintenance.

**Mayor Pro Tem Brinkman**

**Q12** – What would be the value to the city? Would this would be an asset to the city?

**A12** – The shared pipeline eliminated the Platte Canyon lift station which the city had been paying its share of operating costs to Platte Canyon at an average of about \$6,000 a

year for over 45 years. That lift station would have eventually had to be replaced which the city would have had to pay a share. The city's capacity in the shared pipeline was paid for by Roxborough at a cost of \$163,242.36. The gravity pipeline has a flow capacity exceeding connector agreement requirements so infrastructure is already in place to serve future customers if the need arises without future cost. In addition to the capital cost savings for capacity in the shared pipeline, the city has already saved an average of \$6,000 in payments to Platte Canyon since 2006 for an operating cost savings of \$60,000 to date. The total savings to the City of Littleton as of today is \$223,242.36.

**Council Member Cole**

**Q13** – Have we been sharing any of the cost for maintenance with Roxborough? There seems to be some cost to the city. In 2005-2006, construction was to eliminate the lift station.

**A13** – Roxborough has not billed the city for any of its share of the pipeline maintenance since it was put in service since the cost has been minimal even though the IGA does allow it to do so. City cost to maintain the sewer is expected to be minimal for the near future. Littleton does not pay anything for maintenance of the Roxborough lift station, force main, chemical addition, odor control, or gravity pipeline on Army Corps of Engineers property. Roxborough's current maintenance activity amounts to flushing the siphon 2 times per year which amounts to 2 Field Techs and about 4 hours per year. Roxborough's estimated cost is less than \$1,500 per year. The pipeline is large and has enough flow that cleaning and video inspections are not normally required.