

City of Scottsbluff, Nebraska

Monday, July 6, 2015

Regular Meeting

Item Reports1

Council to receive a report on the landfill study.

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**Landfill Update – SCS Aquaterra
Mayor to Mayor Meeting
5/29/2015**

How will we embark on the future of solid waste management for Scottsbluff, Gering and nearby communities? The City took a look at the existing infrastructure and the diversion concept. How can we add some features and additions and increase the diversion rate? How much air space can we realistically save to have more time to evaluate some of the alternatives?

If we implement SCS Aquaterra numbers and pro formas, what kind of additional life would be realized moving forward?

Option A: One option presumes we've got the permit to open and operate a new landfill locally. It presumes the whole process occurs such as public hearings, site design, construction, etc. will be done in a five-year period. After five years we'd be ready by NDEQ to open and run the landfill. A typical period is more like 7 years. Often this gets drug out longer because residents don't want it in their backyard.

Option B is where we would take waste to J Bar J (Chadron or Ogallala). That would include the transfer of the non-diverted waste. The disposed volume annually is offset to another location such as Chadron or Ogallala. We'd modify the transfer station that exists now and in this case the MRF aspect we'd presume to be a single stream MRF; but there are other MRF options. It would be an over the top transfer station. We'd have long-haul transfer trucks and load over the top. It's about \$400,000 to do that; the bad news is you suffer about a 35% decrease in efficiency vs. more efficiency in an at-grade system.

Option C: The last option is a new transfer station. If we come in at-grade we're looking at a million and a quarter but we'd have more efficiencies.

The green line on the pro forma contains the MRF aspect where we are recovering material and diverting it to the working phase, lowering our rate of air space consumption. The last two options suggest we use the current facility and transfer materials to another location at some distance.

Regardless of the recycling system we use, we're presuming we have a rolling start to get to our maximum efficiency. SCS Aquaterra assumed a cost of \$20,000 per year in perpetuity to educate the public to voluntarily recycle and hopefully get to the point to where we're at the maximum level. They think 14% is a reasonable aspiration but we won't get there on day one. Maximum theoretical is about 30-35% nationally. Lincoln is about 20-21%. It has been a flat trend the last 20 years regardless of the education rate in Lincoln. If we start now we'd hope to have an increase of 4-5% and we might not need to dump in that \$400,000 right away until we get out to that 14% several years out. SCS's best guess is Scottsbluff and Gering will be at 14% at some point.

Every year we'd be buying 180-200 carts to replace old ones and to give to new customers. Our collection effort, once we get to 14%, we'll have to have more trucks and more crews to do that. SCS looked at a gross number on a per ton basis and put numbers in for labor, overhead, etc. But they didn't get into the weeds on exactly how many days there would be pick-up, etc.

The other clarification is the capital, operation and maintenance costs which we can control. What we can't control is what the commodity will be worth out in the market. Right now they are at a historic low. SCS figured this as revenue neutral; more of a break-even model. There is a revenue stream here where they assume we'll have a revenue stream from the public to cover the costs. We should be able to operate at \$100 per ton MRF. We'd be selling our commodities at a slight profit but that may not happen all the time. The revenue from the public should help off-set some of that. There will be times that the user cost may not cover it. They didn't add revenue in the model and pro forma as money coming in from recyclables to Denver, but they didn't add in transportation costs to Denver either. Those factors are highly cyclical and they assume it's a wash at this point. They aren't economists so they just assume it's neutral. They have no control over spot prices for plastic, cardboard, etc.

The bottom line on the chart is the cost of the new landfill, the line in blue is if it gets sited in five years. We're starting at 2016 at an inflated rate. If they keep it inflated until we run out of air space in 2021, and start with the new landfill, it will start at an inflated rate as well and moves up line. This does not represent our actual cost on the landfill. It shows when we will retire our debt if everything follows in line with numbers plotted.

What happens if we don't get it sited and permitted, and our ATO doesn't occur until 2024? We'd have two years that we've got a closed landfill locally and we don't have our new landfill sited or built yet. When that happens we're still generating waste; it has to go someplace. It can be sent to Chadron or Alliance so they factored in the transportation costs in the chart (assuming there is a landfill that can take it for two years). There is some penalty to be paid to bridge that gap.

Top end: We'd roll along until we run out of air space and then we'd have to transfer. If we look at our MRF operations we might say we're doing X amount of recycling and hope to increase it each year. We'd be saving air space and could equate to 3/4 of a year with the increased diversion rate. At that point in time the costs of this zone to run a MRF is about an additional \$12 per ton. That gets added to our tipping fee costs at the landfill. If we were to divert more waste, 14%, in year one and hold it all the way out, the line doesn't go down it goes up because the cost of our recycling is \$100 per ton not \$50 per ton. However if we have a remote landfill the base tipping fee costs to transport changes because our recycling is more beneficial. It all depends on the percentage of recycling, etc. Variables are numerous.

What happens to the lines if we do something other than single stream? If we go to a dual MRF what we see is the base line, instead of a 14% ideal recovery we'll get less buy-in no matter how hard we try. We'd be looking at 12% less with a dual MRF because the public has to sort. It's within pennies in terms of tipping fee impact because our diversion rate is less. This is a voluntary system. There is little or no difference in cost between voluntary single stream and dual stream because it evens out basically. There is no visible difference on the graph. The dirty MRF contaminates the recyclables. You could potentially pull off 35% as a recyclable and reduce the amount going into the landfill but it's contaminated. We'd get a severe deduct on the quality of the recyclable if it's contaminated.

What about burning? Burning is \$70-\$80 a ton extra. There is ash with metals in it after it's burned and it has to go back to the landfill, etc. So it's not more efficient to burn in most cases. When you contaminate the waste and even if you pull 35-40% off you still have contamination and will likely only get 21 to 25% diversion.

Hand pick: We'd have more labor costs to hand pick; that increases our cost per ton. We may get a \$20 benefit per ton in diversion but our labor costs go up \$50 a ton for example. The economies of scale don't balance.

We're talking 12 million for a new landfill, how do we come up with that? SCS said the new landfill goes out to 2100 and the costs are amortized over many years. You don't build all 100+ acres of landfill in a day, it's done over time.

We're using a tarpARMOR now (under trial period - will be using once we receive NDEQ approval) and doing things to conserve air space, we are looking at possibly being able to conserve another eight months with diversion, etc. There is no room for vertical expansion right now. The City owns a little land to the west and could look at a horizontal expansion but there could be opposition to that. It's feasible but not likely. We've seen strong opposition on current operations. The idea of having it transported might see opposition because of large trucks and equipment going up and down the road to the landfill.

Is recycling costing us money? Yes, it's actually costing us to get rid of single stream recyclables right now. The present volume of recyclables is not enough to be economically feasible.

The cost to delay the life of the landfill increases our costs \$12 per ton. We're driving trucks to Denver, using equipment and leaving a carbon footprint.

How many sites should be looked at?: We almost have to look at two or three different sites. There are politics with each.

Reduce, Reuse, Recycle: It's more sustainable to reduce and reuse than to recycle. Recycle is at the bottom of that triangle. Recycling has its place but it's not economical right now. A public education program to promote "reduce and reuse" makes more sense. That reduces what goes into the landfill. We are actually wasting money running our trucks on the recycling pick-up routes. We're spending more time, energy and money to pick up and transport recyclables than it's worth.