

COTTAGE GROVE CITY COUNCIL
WORK SESSION MINUTES
October 10, 2011

CALL TO ORDER

Mayor Gary Williams called the meeting to order at 6:00 pm in the Council Chambers at City Hall.

ROLL CALL

COUNCIL PRESENT: Mayor Gary Williams, City Councilors Mike Fleck, Jeff Gowing, Jake Boone, Heather Murphy, Garland Burback and Victoria Doyle

STAFF PRESENT: City Manager Richard Meyers, Public Works Director Jan Wellman, Police Chief Mike Grover, Community Services Director Pete Barrell (6:12) and City Recorder Trudy Borrevik

The Mayor explained that this was a work session and that no public input would be taken but that those in the audience would have a chance to address the Council during the Regular Meeting at 7 pm. He recognized Senator Floyd Prozanski who was in attendance and thanked him for coming.

Biosolids Processing Options

Public Works Director Jan Wellman, presented different options and costs involved with the disposal of biosolids. He said the memo provided to Council, outlined the options in great detail, so he would be only highlighting the information. He said for the last ten years, the City had been transporting and applying biosolids to Hendrickson's Farm, which was located South of Cottage Grove. From 2001 through 2006, the City's wastewater treatment plant used an anaerobic digestion system (without air). It reduced the odor of the biosolids but created more odor at the plant, so people who lived in the Ostrander neighborhood and area, complained about the odor coming from the plant. He said the plant also produced a lot of methane gas, which was dangerous to employees and an explosion hazard. The City upgraded the plant from 2004 through 2006 and the new plant went online in January, 2007. The process changed from anaerobic to aerobic (with air) and by moving to aerobic digestion, the odor was eliminated at the plant and also eliminated the production of methane gas. Initially when there was aerobic digestion, the amount of odor was reduced in the biosolids. The City, however, stored its biosolids for an entire year and then applied them on Hendrickson's fields, normally during the month of July. He said the spreading needed to be done during the hottest part of the year. The DEQ permit allowed the City to do biosolid application, between May 1st and October 1st of each year. The City had a cooperative arrangement with Mr. Hendrickson, who grew hay, and the

City provided the biosolid material as a fertilizer. He said normally he didn't cut hay until the early part of June and sometimes late May, so the City was delayed in getting onto his fields until sometime mid to late June. He said it also took that long for the conditions in the field to allow the City to be able to drive out on the fields and apply the biosolids. He said the City normally applied the biosolids in the month of July, normally between the 4th of July and Bohemia Mining Days to avoid any interference. He said it used to take between ten to twelve days to apply the biosolids, however this last year it was done in four days. The City started applying the biosolids on Monday, July 25th and completed it on Thursday, July 28th and no biosolids had been applied to the fields since that date.

Jan said the aerobic system produced more biosolids than the anaerobic system did, which caused the shed where the biosolids were stored, to "bust at the seams." By the time the City got ready to apply the biosolids, they had been stored for a year, which caused regrowth of bacteria, which was where the odor came from. He said the aerobic system did have very little odor and if someone were to walk over to the belt press and smell the odor, there would be very little and what you could smell would have an earthy smell to it. It had been a continuing program since the City went over to the aerobic process in January, 2007.

Jan said the City had two options of disposing of biosolids. Those were hauling to an approved DEQ disposal site, not another land application site, but a site where they would be disposed of, or to construct an active or passive drying system. He said with either the active or passive drying system, there would still be a certain amount of land application that would be necessary as part of that process.

He outlined the three options for hauling:

- 1) Cottage Grove Garbage Service's cost for hauling biosolids to Short Mountain was \$128,800 per year which calculated out using this last year's tons as follows using a sealed container that could haul 8 tons per load: 1400 tons at 8 tons per load would be 175 loads at \$200 per load for the hauling and \$67 per ton for the disposal fee at Short Mountain Landfill.
- 2) Foglio Trucking's cost for hauling biosolids to Short Mountain was \$118,000 per year which calculated out using this last year's tons as follows using a tandem sealed container that could haul 16 tons per load: 1400 tons at 16 tons per load would be 88 loads at \$275 per load for the hauling and \$67 per ton for the disposal fee at Short Mountain Landfill.
- 3) Heard Farms maintained and operated a DEQ approved settling pond disposal facility between Sutherlin and Roseburg. He currently hauled for several communities and accepted both solid and liquid waste. He would have to construct an unloading tank to dump into his pond and would need to acquire an end-dump trailer and would charge the City \$36 per ton for a total of \$50,400 with a two year price guarantee. He explained how their system worked and said they had the DEQ permits required to operate the facility.

Jan said of the three options, Heard Farms was the most economical and the one that staff would prefer to pursue. He said attached to the memo was an Oregon Department of Energy Business Highlight which explained the Heard Farms operation and process and a proposal letter from Heard Farms. He said with the Heard Farms option, it could be both the short term and long

term option. He said at some time in the future with the Heard Farms option, the City may or may not have to hire an additional wastewater treatment plant operator Grade I employee, to help load trucks and perform other duties at the wastewater treatment plant. He didn't see that as an immediate need, but would be something that may be needed in the future. He said the City's tractor currently being used for biosolids was older and was currently operational but may need to be replaced at sometime in the future for a cost between \$7,500 and \$25,000.

Jan said the other options the City looked at were active and passive drying systems which would reduce the biosolids volume at the plant by 80% and odor would be significantly reduced but would not be eliminated. He said he had let the Councilors smell a sample from Myrtle Creek's plant which did have an odor but not as strong or pungent. He said a passive drying system would reduce overall biosolids volume by 50% and odor would be reduced but not eliminated.

He said there were three notable active drying systems, Fenton, Therma-Flite and Siemens. He said the active system received biosolids from the bulk press and used heat to eliminate all the moisture and bacteria content. It created a Class A material which was then bagged or piled and could be used as fertilizer which could be sold. With a active drying system, an additional employee would need to be hired and the loader would have to be replaced at some point. He said the unit cost was around \$500,000, the engineering costs would be about \$100,000 and the site improvements would be around \$100,000 for a total initial cost of \$700,000. The utility and supplies cost would be around \$50,000 a year. He said he provided pictures with the memo of the Myrtle Creek drying system. He said the City would be required to incur debt in order to pay for a active drying system because it was beyond the capacity to pay for it out of the existing budget.

Councilor Fleck said in the Agenda Session it was also talked about if the product could be sold and that some communities had tried and asked if staff had any other information regarding that.

Jan said Myrtle Creek did sell a small amount, but he didn't think the City would ever be in a position to sell enough of it to pay for the system or to get rid of it all. He said the City could use it as fertilizer on City property, but was limited as you could only use so much. It could be sold to the public as well which would get rid of some, but there would still be some requirement for land application because the most common way to dispose of biosolids statewide was through land application. He said almost every City who had a wastewater plant did some element of land application eventually, which may only be once every 20 years, but eventually their ponds had to be dug out. The City of Eugene had a very elaborate system where they moved things out to Prairie Road which went into a pond and was scrapped out and air dried for several years and then moved and land applied near Junction City.

Richard said back east more plants that used active drying were seeing more results in selling as there weren't the other markets of fertilizers that were in the west.

Jan said dried biosolids, a Class A material, would have marketability to someone who operated a farm operation.

Councilor Doyle said Option 1 and 2 were basically putting it in the landfill, so there would be no use of it and it was filling up the landfill.

Jan said the biosolids were 85% water when they were disposed of in the landfill which brought up the cost to dump at \$67 per ton, but after a short time the water dissipated and there was very little material left.

Councilor Doyle said Heard Farms would use it.

Jan said yes, they would put it on agricultural fields. Heard Farms had 210 acres and used 50 acres of an adjoining farm.

Mayor Williams said the biosolid that went to the landfill, the leche was captured and asked if it went to the City of Eugene for processing again.

Councilor Burback said it went to the Metro Wastewater System and said they were limited as to how much they could take.

Councilor Boone asked what the useful life span of an active drying system was.

Jan said around twenty years, that most capital infrastructure in water and wastewater plants were almost always replaced, modified or upgrade every twenty to twenty-five years.

Richard said capacity wise, the unit had enough capacity because it wouldn't be run every day. He said if more biosolids were produced, it would be run additional days. He said Myrtle Creek only ran theirs about once a week.

Jan said the active drying system was a drum that heated oil on the outside of the drum with the biosolids inside, almost like a clothes dryer, and it turned and heated and dried the material, removing all the moisture out of it.

Richard said there were emissions of steam and potential odor.

Jan said it would create an odor at the wastewater plant for the people who lived in the Ostrander area, which could become an issue. It was almost like roasting coffee, it didn't smell very good.

Councilor Fleck said Class A biosolids could still be placed on Hendrickson's farm as well so the city could avoid the dumping fees if the City could make it work.

Jan said it would reduce the loads that would need to be hauled from 175 to about 35 loads, assuming nothing was sold or used in any other way. It would become a storage problem as the bags would be filled and lifted by the loader and then stacked and stored, it was more labor intensive. There was limited space in the biosolid shed.

Councilor Murphy clarified that with the Heard Farms option, there were two cost estimates,

\$70,800 plus \$50,400.

Jan said the \$50,400 would be the charge to the City to haul the biosolids to Heard Farms and if another employee needed to be hired, that would be the additional cost of \$70,800. That position would not be needed just to load trucks. He said there were other part-time City employees that could load the trucks without hiring an additional person.

Councilor Gowing said as elaborate as Eugene's system was, it still had an odor. He said by the City putting in a drying system, it wouldn't eliminate the risk of the odor being present.

Councilor Boone asked if instead of hiring someone to load the truck, if a bin or something similar could be installed that the truck could pull under to dump it into each week.

Jan said it had been discussed. They had also discussed the City purchasing a trailer and putting it under the belt press for the material to fall into but there would need to be some way to smooth it out in the trailer itself. He said the price from Heard included the truck, trailer and hauling. The advantage if the City had it's own trailer, was the City might be able to negotiate a reduced price per ton with Heard Farms. The City would also need to have someone with a Class C license to haul it which would take an employee away from the plant.

Jan said the other drying system was a passive drying system that used solar or air drying beds or a composting system. He said under a solar, air drying system, the biosolids were mixed with woody debris such as wood chips and leaves which created a composting system. He said the other passive drying system involved large drying beds which would need about two acres of land. It would have to be a hard surface with an asphalt or concrete pad and would have a two to three foot stem wall around the perimeter and would have to have a truss cover system. He said it could be either a hard or soft roof but had to be something to keep the rain off of the biosolids. The biosolids would also have to be mixed and turned on a daily basis which was labor intensive. He said the engineers who designed the City's wastewater treatment plant, Carollo Engineers, said the cost would be significantly higher than the cost of an active drying system. He said there would also be the need to hire as many as two employees and a more reliable loader. Kennedy/Jenks Consultants designed a regional biosolids composting system for Florence with an estimate of \$2 to \$4 million. He said also under current DEQ regulations, a passive drying system would make Class A sludge, but the proposed regulations would make a passive drying system to be able to produce Class A sludge. He said this option would not be economically feasible to pursue.

He said another option they had looked at but hadn't mentioned, was through Waste Management. He said they had contacted them but they didn't want anything to do with it.

Richard said staff had also talked about lagoons but the City didn't have enough space for it.

Jan said Heard Farms had a major capital investment in his facility. He said they had received a large Oregon Department of Energy Grant that was used to make modifications to their facility. He said since he had written the memo to Council, Heard Farms had a site visit by Tim McFetridge, Senior Environmental Engineer, with DEQ in Salem, and Paul Kennedy,

Environmental Specialist with DEQ in Eugene. They had visited the site and have sent Heard Farms an approval letter. He said Heard Farms had to build a tank of some type at the end of his pond where a truck can dump into the tank and the biosolids would be re-hydrated and flow into the pond.

He said staff's recommendation was to pursue an agreement with Heard Farms with a cost of \$50,400 per year, with a rate on the utility bill of approximately \$1.25 per user per month.

Councilor Fleck said he had come up with \$2.73 per month which included the cost of an additional employee.

Jan said the cost for an additional employee was premature. He said the current hauling was labor intensive, which wouldn't be needed. He said the City hard costs of around \$7,500 to \$8,000 for the biosolid hauling this year which was for fuel, the cost to rent a front end loader and the purchase of a spreader. He said with soft costs such as staff time, the wear and tear on the backhoes and trucks, it was a total cost of \$10,000 to \$15,000 a year.

Councilor Fleck said there was another option that wasn't in the staff report and that was looking to see what improvements the upgrades in the plant were going to have and to continue to do the current process. He said he wasn't saying he supported it, but it was still an option that was on the table.

Jan said the digester upgrade project would improve the situation, but would not solve the issue with the production of biosolids and the odor. He said the City operated currently right at the line and what the digester upgrade would do is move the City back from being right on the edge so there was some breathing room. He said when the plant was built it was a place where money was saved at the end by modifying the existing digester basins which were undersized. The digester upgrade put air bubbles at the bottom of the pond with big blowers that moved the air through them more effectively. He said currently they floated on the surface. He said it would help, but wouldn't solve the problem.

Mayor Williams said he appreciated the content and options provided.

There being no further business, Mayor Williams adjourned the meeting of the City Council at 6:40 pm.

Trudy Borrevik, City Recorder

Gary Williams, Mayor