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**DATE:** November 15, 2021

**TO:** Peter Zaroni, City Manager

**Thru:** Neiman Young, Assistant City Manager

**FROM:** David S. Lehfeldt, Director of Solid Waste Services  
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**SUBJECT: November 9, 2021 City Council Meeting Questions**

During the November 9, 2021 City Council meeting, the Mayor and Council posed questions about the proposed Transfer Station and Compost Facility to be located on 93 acres adjacent to the current J.C Elliott Transfer Station. Information requested includes:

- future development in the area
- options for relocating the compost facility to the landfill
- cost of each of the options
- highest and best use for the 92 acres
- value of the property

**Department Response:**

The J.C. Elliot Landfill began operations on approximately 158-acres of City property in the 1970s and closed in 2007 when the Cefe Valenzuela Landfill opened. The J.C. Elliot Transfer Station opened in 2007 to provide services to our residents and to facilitate the hauling of trash the extended distance to the new landfill. The Corpus Christi community continues to utilize the transfer station for waste disposal.

Over 170,000 customers used the transfer station in FY 2021. Due to increasing customer

demand for services, including composting, the J.C. Elliot Transfer Station has outgrown its facilities.



To meet the current and growing demand for requested services, the Solid Waste Services Department has proposed the development of a unified Solid Waste Facility Complex to meet both the City's and residents' growing needs. The proposed unified Solid Waste Facility Complex consists of three major projects: a new compost facility, a new transfer station (including consolidated fueling and parking for the transfer and collection fleets), and a new administration building. City staff has achieved several important milestones in the development of this project, including City Council approval in August 2020 to purchase 92 acres of farmland adjacent to the current J.C. Elliott Transfer Station for a sum of \$3.0 million.

The current appraisal of the property shows a land value of \$2,860,000 with a Highest and Best use of "Industrial". A portion of the property lies within an area identified by the Navy as a potential accident zone for aircraft using Cabiness Field. The appraiser determined the property to be located in the AE Flood Zone Designation. Based on information provided in the appraisal, a transfer station and compost facility are ideal uses for this property, which is adjacent to a closed landfill and a working transfer station.

The facility offers a significant convenience to residents to discard household garbage, household hazardous waste, brush, bulky items, and construction materials. As currently utilized by City trucks, residents, and small commercial haulers, the facility is inadequate to meet the current and growing service needs efficiently and safely. The primary concerns are the inadequate driving lanes, conflicting traffic patterns, a congested tipping area and dumpster locations that restrict the number of customers allowed to safely unload materials.

When the existing facility was built, chain link fencing was utilized in place of walls as a means to control costs. With the constant windy conditions, trash is blown from the disposal and unloading areas, littering the adjacent properties. The new transfer station design includes walls that will eliminate the windblown litter, adequate queuing lanes for customers and ample tipping area. The new facility will provide a greater level of service to the existing and growing customer base, while allowing the City to incorporate tire shredding, glass crushing and freon recovery into our waste processing portfolio.

The site selected for the compost facility (shown in white) is ~40 acres surrounded by ~700 acres of city owned property (shown in blue) including a closed landfill, operating transfer station, brush

grinding area, concrete disposal and a borrow pit. Land uses around the city owned property are primarily governmental (Cabiness Field - grey), light and heavy industrial (lt. and dk. purple), some commercial (red) and a limited amount of residential (yellow) and mixed use (peach) to the west and southwest.



The proposed compost facility will initially process wood chips and wastewater sludge in an aerobic, open windrow format.



Aerobic processes decompose organic material in the presence of oxygen and emit heat, carbon dioxide and water vapor. Odors are minimized in this process. All municipal and commercial compost facilities are highly regulated by the Texas Commission on Environmental Quality and must meet stringent design and operational requirements. The proposed location provides a buffer zone of approximately  $\frac{1}{2}$  mile to the nearest potential residential customer. The bordering topography of the JC Elliott Landfill, Oso Creek, State Highway 286, and Cabiness Field provides physical impediments that will disperse odors before they can reach neighboring properties. If needed, operational controls such as misting devices and geotextile fabrics are available to provide additional odor control. A New Earth composting facility in Conroe, TX processes wastewater sludge with wood chips (same process we are proposing) in an area surrounded by residential neighborhoods. One house is actually less than 500 feet from the active composting windrows. This is possible because Aerobic composting is effective in preventing noxious odors from developing.

Should we encounter odor issues at the J.C. Elliott location, it is possible to relocate the compost facility program to the Cefe Valenzuela Landfill without incurring significant capital costs, but it will require significant additional operational expenses of approximately \$830,000 annually. This is due to the increased hauling distance to move approximately 70,000 cubic yards of brush and 50,000 tons of wastewater sludge the additional 11.5 miles to Cefe. The increased haul distance for the Brush and Bulky collection crews that collect ~235,000 cubic yards of brush annually will add significant time to the collection operations and will require an additional brush crew. This crew consisting of 4 employees, 3 brush trucks and a rear steer grapple truck, will require approximately \$565,000 annually for equipment, fuel, and labor.

Solid Waste Services staff has over 25 years' experience operating compost facilities utilizing the feedstocks recommended for our location. Composting is performed throughout Texas and there are many programs operating in communities that demonstrate composting is a good use for this property. Unfortunately, in the past some operators have not been good neighbors and created negative publicity. These situations are rare, and regulations have been enacted that prevent them from occurring in the future. Well run compost programs can be good neighbors and provide a great way to reuse the massive quantities of vegetative mater created by our 12-month growing season. In addition, this facility will provide responsible, inexpensive disposal for any natural disasters that we encounter in the future.

Staff is available to answer questions.