



**City of Denton**  
**MINUTES**  
**PUBLIC UTILITIES BOARD**

City Hall  
215 E. McKinney Street  
Denton, Texas  
www.cityofdenton.com

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**Monday, June 25, 2018**

**6:00 pm**

**Work Session Room**

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After determining that a quorum of the Public Utilities Board of the City of Denton, Texas is present, the Chair of the Public Utilities Board will thereafter convene into an open meeting on Monday, June 25, 2018 at 6:00 p.m. in the Work Session Room at City Hall, 215 E. McKinney Street, Denton, Texas

**Board Members: Chair Randy Robinson, Vice Chair Susan Parker, Allen Bishop and Brendan Carroll**

**Ex Officio Members: Bryan Langley, Deputy City Manager and Mario Canizares, Assistant City Manager**

**Absent: Deb Armintor, Charles Jackson and Lilia Bynum  
Todd Hileman, City Manager**

**WORK SESSION**

**A. PUB18-112 - Receive a report, hold a discussion, and give staff direction regarding a review of the Solid Waste Department's landfill and collections operations by Blue Ridge Services, Inc.**

Ethan Cox gave background on the Solid Waste department operations and introduced the consultants, Neal Bolton, P.E. and Ron Proto of Blue Ridge Services.

Neal Bolton then spoke and gave the project overview. This included submitting and reviewing detailed CDL and CDC questionnaires. Landfill and collections data analysis. Operations and safety document review. On-site visit by Neal Bolton, Ron Proto and Kasem Cornelius from March 26 through March 30. There was further analysis, review and input from BRS team.

Findings and recommendations for the three areas of discussion was the landfill, collections and solid waste and recycling as a whole.

The CDL tonnage growth was talked about and a chart was shown. Landfill tonnage has greatly increased in the recent years. SWRD has instituted multiple ancillary services as well. Rapid growth and additional of ancillary activities often result in planning and staffing inefficiencies.

Landfill operations planning was talked about. By planning ahead for both long and short-term operations significant savings and efficiency improvements can be made to operations and landfill airspace utilization.

*BRS recommends the following for the landfill:*

- Development of a Soil Management Plan*
- Development of an Annual Fill Sequence Plan*
- Construction of Wet Weather Tipping Pad*

Rubble Processing - Rubble materials are being overhandled and over-processed with excessive heavy equipment. Most rubble can be used as-is for other on-site purposes, with minimal processing and with strategic planning, the annual quantity can be reduced – helping preserve valuable landfill airspace. This area is not making money for the department.

*BRS recommends that processing rubble in-house be discontinued.*

Building Material Recovery (BMR) – Labor and heavy equipment intensive process. Should be financially viable through: Commodity sales revenue, value of lined – landfill airspace saved through diversion and consolidation of processed solid waste material.

Based on the ProFormas available the BMR is not a financially viable operation. Recommend refocusing efforts to increase airspace utilization on improving landfill compaction and soil usage.

Board Member Parker asked about putting materials in whole and losing airspace. Bolton answered if you compact and process properly that will not be an issue.

Chair Robinson asked who is bringing in the materials (BMR). Cox said large and small commercial, and residential as well. There is a mix of entities. There are many other concrete and rubble processors that can take that material.

*BRS recommends that the BMR operation be discontinued, or modified significantly.*

Bolton continued with Enhanced Leachate Recirculation (ELR).

The ELR System pumps collected leachate back through the landfill. The two goals of the ELR are to generate more LFG to increase the amount of power produced by LFG-to-energy system. Also to extend the life expectancy of the landfill by increasing the rate to landfill settlement to provide additional available airspace.

*BRS recommends that ELR operation be decreased/discontinued.*

Landfill Heavy Equipment was looked at.

Primary dozer (D155) currently used approximately 2,730 hours per year. Reduce by 50 percent to approximately 1,300 hours per year. This can be accomplished by the area to be larger for better movement.

Two (826K) compactors currently used approximately 4,300 hours per year. Should fully utilize at approximately combined 5,600 hours per year. In time exchange for (CAT 836) compactors.

Smaller dozer good machine for trimming, cover, pre-fill stripping.

Currently there are three articulated haul trucks. Estimates indicate one truck operating about 1.5 hours per day is adequate for handling cover soil.

Increase utilization of Tarp-O-Matic will require additional tarps, cheaper than using dirt.

Increase effective density from 1,100 lbs. per cubic yard to over 1,400 lbs. per cubic yard.

Landfill summary

- Development of a Soil Management Plan
- Development of an Annual Fill Sequence Plan
- Construct a Wet Weather Tipping Pad
- Discontinue processing rubble in-house
- Discontinue BMR operation
- Decrease/discontinue ELR operation
- Reduce D155 dozer hours by 50 percent
- Fully utilize 826K compactors

- In time exchange CAT 826 for CAT 836
- Reduce Articulated Haul Truck hours and fleet
- Increase utilization of Tarp-O-Matic
- Increase Effective Density

Parker asked on the ERL, when does the contract end. Cox answered the contract is up in 2024, staff is talking with legal to explore contract revisions.

Robinson asked if we are flaring the excess gas. Cox if we have access, we are flaring.

Findings & Recommendations on collections was given by Ron Proto. Proto stated when he comes into a review his first thing is to see what services are offered.

Services offered include:

- Residential Collection
  - Municipal Solid Waste
  - Recycling
  - Bulky item
  - Household chemicals
- Commercial
  - Municipal Solid Waste
  - Recycling
  - Food Waste

Residential MSW Collection - Each route makes about 1,064 to 1,097 lifts per day. Industry standard for an eight hours day is 950-1,000 per day.

*BRS recommends that the CDC conduct an objective study to determine if the residential MSW route lift per day provide for a full day's work.*

Residential Recycling Collection – routes productivity is low. Setout rate is estimated to be 60-70 percent, about 600-700 lifts per day. Recycling routes use the same number of trucks as MSW routes, ye they collect only 22 percent of the residential tonnage.

Parker is surprised that the recycling isn't higher. Robinson asked if having smaller recycling carts increase the setout rate to be more efficient. Proto answered it would, the city uses a 64 gallon cart which is standard.

*BRS recommends that CDC audit the residential recycling routes for the setout rate and cart volume, then adjust the routes accordingly. Route audits may indicate recycling can be collected every other week.*

Residential yard waste – The yard waste collection system is slow, inefficient, leaves a mess and is unsafe. A two man crew drives by almost 2,000 houses per day but averages only 128 collections, less than four tons per load.

*BRS recommends that the CDC consider using a cart-based system like residential MSW collection.*

Bulky Item Collection - Crews average 35 collections a day. This is low by industry standards, which can range from 100-200 collection per day.

*BRS recommends that CDC consider running the bulky collection route every other week or every third week to increase collections to 70 or 100 per day. The schedule can be seasonally adjusted based on the service history.*

Household Chemical Collection (HCC) - The city provides valet HCC Service. Many cities require residents to bring the material to a collection location. Only 12 percent of the residential customers utilize this service.

Commercial MSW Collection - The commercial MSW front-loader routes average 102 lifts per day. Industry standard is a lift count of 125 to 150 lifts per day, depending on route density and distance from the post-collection facility.

*BRS recommends CDC should eliminate one Monday through Friday and one Saturday route. This change would increase the Monday through Friday routes lift count to about 120 per day.*

Commercial Recycling Collection - CDC has a complex schedule for commercial recycling. The lift count average is 68 per day with less than 50 percent of the trucks carrying capacity.

*BRS recommends that CDC consider a complete review of the commercial recycling system. Redesign the routes to increase lift count to around 150 per day, in line with the industry standards for recycling routes.*

Multi-family recycling - It is the understanding that the City is looking to significantly expand CDC recycling for multi-family housing customers. Multi-family recycling is one of the most challenging sectors to minimize contamination.

Fleet maintenance – A major complaint and a source of frustration was that it takes too long to get a truck repaired. Drivers avoid dropping off their truck unless it's absolutely necessary. This is a serious safety concern, but also exacerbates maintenance time issues.

*BRS recommends periodic meetings between fleet maintenance services and drivers. Allow both groups to develop a mutual understanding of the challenges drivers and technicians face when a truck goes in for repairs.*

The City of Denton Fleet Maintenance has 16 technical positions with about 1,100 assets. A ratio of one tech to approximately 69 vehicles.

*BRS recommends increasing fleet services department staff to achieve a ratio of one technician for every 7-10 vehicles in the collection department including support vehicles, pickups and cars.*

Fleet Maintenance Annex – Truck maintenance is four miles from the collection departments parking facility. It makes dropping off and picking up trucks for repairs inconvenience and time consuming. The fleet building is currently full.

*BRS recommends constructing a maintenance sop annex close to CDC's truck parking facility. This would be convenient and encourage drivers to drop off their trucks for repairs.*

#### Collections Summary

- Conduct an objective study of residential MSW route lifts
- Audit residential recycling routes for the set out rate and cart volume, then adjust the routes accordingly.
- Consider using a cart-based yard waste system.

- Consider running the bulky collection route every other week or every third week to increase collection to 70 or 100 per day.
- Discontinue the HCC residential collections service
- Operate HCC as a regional drop-off facility.
- Eliminate one Monday through Friday and one Saturday commercial MSW route to increase lift counts to about 12- per day.
- Consider a complete review of the commercial recycling system to increase lift count to around 150 per day.
- Before expanding multi-family recycling service, wait for current markets to stabilize and conduct further resident utilization analysis.
- Conduct periodic meetings between fleet maintenance services and drivers.
- Increase fleet services department staff to achieve ratio of one technician to every 7-10 vehicles.
- Constructing a maintenance shop annex close to CDC's truck parking facility.

Findings and Recommendations for SWRD Safety was talked about by Neal Bolton.

There is an absence of a safety culture throughout SWRD. Minimal high visibility safety apparel in the field. Supervisors and managers do not set safety example with safety vests. Safety meetings not focused on industry specific training. No safety posters, notices, slogans etc.

*BRS recommends PPE and high visibility safety apparel be worn by all employees. Implementing regular safety meetings on applicable solid waste industry topics. Develop and implement comprehensive Standard Operating Procedures (SOPs) for all CDL and CDC tasks.*

Organizational structure - SWRD is generally management heavy. Collections management positions constitute 16 percent of the staff, industry standard is about 10 percent. Collections supervisors currently have 6-9 employees, which is 30-50 percent below industry standard. Collections supervisors spend an inordinate amount of time doing administrative work. Much of this can be handled by administrative staff. Collections dispatching, supervision of back-up drivers, and fleet maintenance need to be addressed in the organization structure. Special projects and new operations should not be introduced at the same scale/frequency in the future.

Organizational Structure Recommendations – Reduce three manager and four supervisor positions. Dissolve the site operations division. Assign planning & special projects to the Landfill Manager. Assign the scale house to the Administrative Manager. Introduce a dispatch operation and consolidate ancillary services under a new facilities supervisor.

Ethan Cox then talked about operational restructure. Management restructure would include reducing the number of manager positions and add employees to areas in need. This will occur this summer.

Approach to program recommendations will include performing additional analysis and presenting the information to this Board and Council. A list of upcoming meetings on the different areas of Solid Waste was shown and discussed.

Rubble stockpile photos were shown along with the financials. Staff also recommends eliminating the rubble operation and to reconfigure the BMR as public recycling disposal operation.

Photos were shown of the recycling drop off area with the illegal dumping.

Parker agrees that rubble is not a SW item, not sure who we got into that.

Carroll then asked how we got into this and do we have financials each year to show how the department has done?

Cox answered a lot of these items were co-mingled along with the landfill budget. When you break it apart and start looking at the actual expenses of the operation it is difficult to decide where the expenses should be. It is not hard to determine the revenue that is coming in. As best as Cox can see there has not been a commodities market to sell the materials.

Parker asked if there are any concerns that if the HCC services are stopped, then it will end up in the garbage. Cox answered it is a possibility. Since the consultants visited the landfill, staff has combined HCC and appliance / electronic home collection. Solid waste is also allowing dropping off the chemicals at the site.

Next steps include proceeding with a reorganization and operational recommendations. Also seek PUB and Council direction regarding business case analysis and program recommendations.

There was a lot of discussion on this item.

Cox stated staff will work on the information and bring it forward for the next presentation.

**B. PUB18-114 - Receive a report, hold a discussion, and give staff direction regarding the air emissions testing at Denton Energy Center conducted by Black and Veatch Corporation.**

George Morrow introduced the item and let the Board know that the emissions testing has been completed. Black and Veatch was responsible for these tests. Paul Lee and Steven Baker was at the meeting.

Paul Lee started the presentation stating he would go over the TCEQ testing, the test results with the DEC path forward.

Black & Veatch is a leading international engineering firm with extensive experience in the power industry, including emissions testing. Black & Veatch retained as Owner's Engineer for Denton Energy Center. Air Hygiene is a leading nation-wide stack testing firm, accredited as an Air Emission Testing Body (AETB) by the Source Testing Accreditation Council (STAC). Air Hygiene personnel included certified Qualified Stack Testing Individuals (QSTI). All other Air Hygiene personnel were qualified individuals under AETB requirements. Air Hygiene has done emissions testing on over 55 Wärtsilä engines projects.

NSPS vs NAAQS, Lee explained the terms.

**Test Details**

Testing occurred from May 17 to May 20, 2018. Test Protocol submitted to TCEQ by Air Hygiene on April 11, 2018 with no comments. TCEQ notified and invited to attend but did not participate. The Pollutants and EPA Test Methods were shown on a table.

Board Member Carroll asked if there were other methods other than EPA that were used or could have been used. Lee answered for environmental compliance it is EPA methods. These test methods are used internationally.

Chair Robinson asked if these test methods are spelled out in the TCEQ permit. Lee answered no, as a minor source it didn't spell out which methods need to be used. Lee identified the most common and accepted methods. There was no comments back from TCEQ.

Testing apparatus was shown and explained with a schematic.

The test results were shown on a table with all 12 engines. They were an average of three tests that were run. All the results were significantly below the permit limits.

#### Results Discussion

PM on Run 1 of Engine 1 was higher, leading to slightly higher average than others. It is common for first runs of gas engines or turbines to be dirtier due to residual grease or oils from construction. All QA of analyzers and equipment used during tests passed. All emissions tests resulted in passing results. Emissions results are favorable compared to other combustion processes (e.g. combustion turbines have higher emissions).

Robinson stated this is the initial test, what is the schedule going forward. Lee answered it is not part of the contract, do not have an answer currently. Morrow answered Jason Brown, Plant Manager indicated the testing would be every three years or 16,000 hours whichever is less. DME will do something before that.

#### DEC Operations:

ERCOT's Economic Dispatch Process – the plant is forecasted to run 2,300 to 2,800 hours per year. The emission output totals would be significantly below Standard Air permit limits of 2,800 plant hours of operation.

#### DEC's SCR Upgrade:

DEC is equipped with an enhanced emission control operational package. Testing has proved that the SCR system is very effective at reducing NOx emissions. The plant averaged 0.426 pounds per hour of NOx over the duration of testing period. This result is significantly under the 1.33 pounds per hour contractual guarantee and permitted.

#### DME's 100 percent renewable commitment

DME is progressing towards 100% renewable energy. The DEC is a component of renewable plan. DEC will come online as one of the cleanest burning plants in the state of Texas.

### **REGULAR MEETING**

#### **1. ITEMS FOR INDIVIDUAL CONSIDERATION**

- A. **PUB18-118** - Consider approval of the Public Utilities Board Meeting minutes of June 11, 2018.

**Approved as submitted**

- B. **PUB18-111** - Consider recommending adoption of an ordinance of the City of Denton, Texas, authorizing the City Manager, or designee, to execute a transmission line relocation agreement with Terrano Realty, Inc., a Texas Corporation, Medanjo Partners, Ltd., a Texas Limited Partnership, and NW Realty, Inc., a Texas Corporation, for the relocation of a 138kV transmission line owned by the Texas Municipal Power Agency and maintained by the City located on the near west side of E. Loop 288 south of Shady Oaks Dr.; and, providing for an effective date.

Brent Heath gave the presentation.

TMPA owns a 138kV Transmission Line, north of Tractor Supply along the west side of East Loop 288. Property Owner is requesting relocation of a portion of the Transmission Line from its existing location, to another location that is located on their property. Easements to the City of Denton for the relocated transmission line have been granted. Property Owner has \$2,200,000 held in escrow at Reunion Title in Denton, from a prior sale of real property to the City of Denton to fund transmission line relocation.

A map was shown of the area.

City of Denton received authorization on March 9, 2017 from the TMPA Board of Directors to perform this Transmission Line Relocation at the expense of the property owner. The proposed Transmission Line Agreement will fund the relocation of the Transmission Line for the actual cost of construction not to exceed the escrowed amount. The City of Denton will partially release back to the property owner, the overhead easement rights that are no longer required, from the old transmission line location.

City of Denton confirmed from recent material bids that the \$2,200,000 escrow amount will cover the transmission line relocation.

There are benefits of the line relocation to the City of Denton. Easier physical access to operate and maintain new poles and conductor along a city street. This project will improve transmission system capacity, performance, and reliability (provide capabilities to add a future second transmission circuit).

After City of Denton and Legal review, staff recommends accepting the Property Owner's \$2,200,000 escrow funds to relocate the transmission line.

Robinson asked if easement costs were included. Heath answered it does.

**There was a motion to approve by Board Member Parker with a second by Board Member Carroll. Vote 4-0 approved.**

- C. **PUB18-113** - Consider recommending adoption of an ordinance of the City of Denton, Texas, a Texas home-rule municipal corporation, approving a proposal for the purchase of galvanized steel transmission poles, anchor cages, and related hardware; authorizing the City Manager, or his designee, to execute a contract for the purchase of same; providing for the expenditure of funds; and providing an effective date (RFP 6744 -awarded to Texas Electric Cooperatives, Inc., in the not-to-exceed amount of \$1,102,070).

Heath also gave the presentation for this item. This is the galvanized steel transmission poles needed for the previous item.

Showed the same map as the previous item.

The previous multiyear steel pole contract expired earlier this year. RFP 6744 obtained updated steel transmission pole pricing, only to relocate a portion of the TMPA 138kV Transmission Line west of East Loop 288 and Shady Oaks. The transmission line relocation was requested by the landowner and will be at the landowner's expense in accordance with a Transmission Line Relocation Agreement. Total of sixteen galvanized steel transmission poles will be purchased

Cost breakdown was shown in detail on a table.

Based on the results of RFP 6477, Texas Electric Cooperative (TEC) received the highest evaluated score from the evaluation team and also had the lowest overall price. Staff recommends approval of an agreement with Texas Electric Cooperative for the purchase of galvanized steel transmission poles in an amount not to exceed \$1,102,070.



**There was a motion to approve by Board Member Bishop with a second by Board Member Parker. Vote 4-0 approved.**

- D. PUB18-122** - Consider recommending adoption of an ordinance of the City of Denton, Texas, a Texas home-rule municipal corporation, providing for, authorizing, and approving the purchase of Property, Boiler and Machinery, and Business Interruption Insurance Coverage for the City of Denton, through the City's sole broker of record, McGriff, Seibels, and Williams of Texas, Inc., and in accordance with Chapter 252.024 of the Texas Local Government Code such coverage is exempt from the requirements of competitive bidding; and providing an effective date (File 6849- awarded to Swiss Re/Lexington Insurance Company (50/50 split) through McGriff, Seibels, and Williams of Texas, Inc., with a three (3) year not-to-exceed amount of \$1,399,000).

Scott Payne, gave the presentation for this item.

Objective is seeking approval from the Public Utilities Board (PUB) for the purchase of insurance for the Denton Energy Center (DEC).

With the construction of the DEC nearing completion, the City needed to secure insurance coverage to protect this asset. The current property insurance carrier for all other City facilities (Affiliated FM) does not provide coverage for power generation facilities. In February, utilizing our broker of record (McGriff), we began the process of gathering information on the DEC for the insurance company underwriters. There are a limited number of insurance companies providing this coverage in Texas.

On May 10, 2018, a tour was conducted for eight (8) engineering specialists representing six (6) insurance companies. Goal was to have coverage in place by July 1, 2018, when construction was finished and operational activities would begin. On May 24, 2018, City was advised the DEC was not covered under General Contractor's insurance. Risk Mgmt reached out to McGriff with issue. McGriff expedited negotiations with carriers to pull together the proposals earlier than originally requested. Coverage was secured on May 25, 2018.

Three key coverage areas were needed for the DEC.

-Property coverage for standard risks like fire, hail, tornado, vandalism, etc.

-Boiler & Machinery coverage for loss due to mechanical or electrical breakdown.

-Business interruption coverage for loss of income due to our inability to operate the DEC because of a covered loss.

Four proposals were received.

Lexington/Swiss RE proposal shares both the premium and the losses on a 50/50 split. Only proposal to include all elements with an annual premium of \$443,385.

Covers \$170,640,000 in total insurable value (TIV), include the New Jim Christal substation

Seeking retroactive approval for the purchase of insurance coverage from Lexington/Swiss RE on the DEC.

**There was a motion to approve by Board Member Parker with a second by Board Member Carroll. Vote 4-0 approved.**

- E. PUB18-119** - ACM Update:
1. Future Agenda Items
  2. Matrix

## **CONCLUDING ITEMS**

Under Section 551.042 of the Texas Open Meetings Act, respond to inquiries from the Public Utilities Board or the public with specific factual information or recitation of policy, or accept a proposal to place the matter on the agenda for an upcoming meeting AND Under Section 551.0415 of the Texas Open Meetings Act, provide reports about items of community interest regarding which no action will be taken, to include: expressions of thanks, congratulations, or condolence; information regarding holiday schedules; an honorary or salutary recognition of a public official, public employee, or other citizen; a reminder about an upcoming event organized or sponsored by the governing body; information regarding a social, ceremonial, or community event organized or sponsored by an entity other than the governing body that was attended or is scheduled to be attended by a member of the governing body or an official or employee of the municipality; or an announcement involving an imminent threat to the public health and safety of people in the municipality that has arisen after the posting of the agenda

**None**

## **CLOSED MEETING**

- A. **PUB18-116** - Deliberations Regarding Certain Public Power Utilities: Competitive Matters – Under Texas Government Code Section 551.086; Consultation with Attorneys - Under Texas Government Code, Section 551.071.

Receive competitive and financial public power information from staff related to a Power Purchase Agreement between the City of Denton, as the seller of power and electric energy services, and Texas Woman's University, as a buyer of power and electric energy services; discuss, deliberate, and make recommendations to City Council regarding the same. Consultation with the City's attorneys regarding legal issues associated with the above matters where a public discussion of these legal matters would conflict with the duty of the City's attorneys to the City of Denton and the Denton City Council under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas, or would jeopardize the City's legal position in any administrative proceeding or potential litigation.

**Adjournment: 8:35 pm**

**Approved July 9, 2018**