

**THE FLOWER MOUND TOWN COUNCIL WORK SESSION HELD ON THE 19<sup>th</sup> DAY OF NOVEMBER, 2009 IN THE FLOWER MOUND TOWN HALL, LOCATED AT 2121 CROSS TIMBERS ROAD IN THE TOWN OF FLOWER MOUND, COUNTY OF DENTON, TEXAS AT 6:00 P.M.**

The Town Council met in a regular meeting with the following members present:

Jody Smith	Mayor
Jean Levenick	Mayor Pro Tem
Steve Dixon	Deputy Mayor Pro Tem
Al Filidoro	Councilmember Place 2
Mike Wallace	Councilmember Place 3
Tom Hayden	Councilmember Place 5

constituting a quorum with the following members of the Town Staff participating:

Harlan Jefferson	Town Manager
Paula Paschal	Town Secretary
Terry Welch	Town Attorney
Chuck Springer	Assistant Town Manager/Chief Financial Officer
Kent Collins	Assistant Town Manager
Doug Powell	Executive Director of Development Services
Matt Woods	Director of Environmental Services
Ken Parr	Director of Public Works

**A. CALL WORK SESSION TO ORDER**

Mayor Smith called the work session to order at 6:11 p.m.

**B. INVOCATION**

Mayor Smith gave the Invocation.

**C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG AND THE TEXAS FLAG**

Mayor Smith led the pledges.

**D. WORK SESSION ITEMS**

**1. Discuss and provide direction on the regulation of gas well produced water pipeline systems, centralized tank facilities, and centralized gas compression facilities.**

Matt Woods, Director of Environmental Services, reviewed several slides from his presentation, particularly Slide 6.







Councilmember Wallace clarified that produced water was not a hazardous waste as defined by the Texas Commission on Environmental Quality (TCEQ) or the Environmental Protection Agency (EPA).

Mr. Woods explained that there were exemptions for natural gas production.

Councilmember Hayden stated that the fact that the produced water was exempt did not mean it was not hazardous. He asked if the Town could have the names of the companies who had agreed to allow the Town to test the water.

Mr. Woods stated those who had agreed to on-site testing were Range Resources and Durwin Operating Production.

Councilmember Wallace clarified that staff needed direction on zoning issues and the pipeline ordinance.

Councilmember Hayden understood that only one centralized collection facility was being requested. He asked to see a map that showed the pad sites that were being requested.

Mr. Woods stated he could provide a map that showed the sites that had been approved.

Town Manager Harlan Jefferson commented that one of the drilling companies showed a map at a meeting with staff, but was told it was confidential information.

Town Attorney Terry Welch stated if a zoning ordinance amendment was undertaken, it would be by zoning district, not specific locations.

Councilmember Hayden was curious about how close the sites would be to urban areas.

Mr. Welch stated if the Council wanted to go in the direction of a zoning amendment, they would have to consider setbacks, buffering, etc.

Mayor Smith stated many concerns had been expressed that the pipeline system might encroach urban areas. She was assuming an urban area was three homes per acre or more (in Flower Mound). She asked if systems could be restricted to certain land areas or "x" amount of acres.

Mr. Welch stated that zoning would limit where sites can be located.

Mayor Smith commented that depending on the regulations, a centralized system probably could not be located in a medium density district.

Councilmember Hayden asked if setbacks were in the zoning classifications, would that supersede the power of eminent domain.

Mr. Welch stated aesthetic and related issues could be applied.

Councilmember Wallace **asked Mr. Welch to explain** "zoning out."

Mr. Welch stated zoning out would not be a permissible use under a **municipality's** zoning ordinance. Mr. Welch gave the example of if a municipality had a zoning ordinance that did not permit churches and schools. Because the school district has the power of eminent

domain, it could place a school in the Town. There would be legal issues involved. The power to zone out was not unlimited. Churches have some federal protections. If a municipality wanted to zone out big box retail, it would not have legal protection under the law.

Mayor Smith asked Mr. Woods to describe the fracing system.

Mr. Woods stated between three and five million gallons were needed for the fracing system. Additives were put in the water. Numerous trucks come on site to bring water for the hole. Gas and flowback water comes out of the hole. The wastewater would be piped into a tank on site. Then the wastewater would be put in trucks and hauled off. Mr. Woods stated the traditional system had two tanks per well. A centralized collection system would eliminate a number of tanks on the pad site.

Mayor Smith commented that the collection facility might not eliminate a good deal of the truck traffic.

Mr. Woods stated the truck traffic would be deferred to a central location.

Mayor Smith stated residents had concerns about safety. She stated the produced water was very salty and clarified that chemicals were added at the site.

Councilmember Hayden stated the water may or may not be hazardous, and he was in favor of the Town doing its own sampling. He had concerns with safety of the truck traffic. He noted that Burlison prohibited truck traffic during school hours. He asked if it would be beneficial to allow them only during off-peak hours.

Deputy Mayor Pro Tem Dixon asked when the sampling report that was submitted on November 16 would be analyzed.

Mr. Woods responded that a third party firm would analyze the report.

Deputy Mayor Pro Tem Dixon asked if this was the same sample referred to in an article in the Dallas Morning News today. He noted that a quote in the article stated there was no benzene in the water, however it did contain a high concentration of sodium, and other elements.

Councilmember Filidoro asked about the chain of custody of the sampling, and if staff took the sample.

Mr. Woods responded staff was not present at the sampling.

Councilmember Filidoro stated the Town Council asked to have someone from the Town take a sample and get it analyzed. He added that the sampling needed to be done more than once and on random days.

Mr. Woods stated staff was not allowed to take the sampling. Staff just received the analysis, not the sample.

Councilmember Hayden stated staff was asked to trust but verify, and there should be a chain of custody with a sample.

Councilmember Wallace commented that the same water in the pipelines today would be going into a central collection system. He stated the question was "**does** the Town allow a

central collection facility or **not?**" He stated the Council simply needed to decide if Flower Mound was going to grant a zoning change to allow the facility or not.

Mayor Smith asked if there were any state mandated requirements for the Town to sample and test the wastewater.

Mr. Woods responded no. He stated there might be an analysis required for injection wells. The regulations were set by the Texas Railroad Commission and TCEQ.

Deputy Mayor Pro Tem Dixon stated there was drilling activity in Flower Mound. The produced water was a by-product. The Town Council needed to decide what was right for Flower Mound when transferring the water out of Flower Mound, as it would have to leave the Town at some point by truck. Everyone wanted to be safe, and he asked how the Council could put in safeguards to create the opportunity to make sure it was a perfectly safe system. If something went wrong, the Town needed to have procedures in place.

Councilmember Filidoro asked if the water could be traveling to the east side of the Town if a centralized system and pipes were underground.

Councilmember Wallace noted that if the Town Council made changes, they would include setbacks (zoning regulations). There would not be wells on the east side pumping wastewater to the west side. He asked if there was a pipe that went from the well head, to where the water comes out and is separated from the gas. He stated there was already equipment in the Town getting the water out of the ground. He felt that it all went back to zoning.

Councilmember Hayden stated while there was piping going on, it was in a contained area and was away from other structures. He was concerned that the collection system piping could in the future go under roads. He stated safety, water quality and air quality were paramount to zoning.

**Mr. Woods reviewed Slides 7 - 15.**

Mayor Smith asked if there was a way to do a process like this (centralized facility) under the current ordinance.

Mr. Welch responded yes.

Mayor Smith asked if a date could be added for review if the Town Council made amendments to the zoning ordinance to allow a central system. She asked if while the ordinance was being reviewed, that it could not be used.

Mr. Welch stated municipalities had to review some ordinances, by law. Many safety issues were mandated by state and federal law. With the current ordinance, he stated he would hesitate to say an ordinance could just go away.

Councilmember Wallace asked that staff proceed to give the presentation to the Planning & Zoning Commission. If the zoning component was recommended by the Commission, it would come to the Council as a public hearing to consider the changes as recommended by the Commission and by staff.

Mr. Jefferson responded there was not enough time with the previously proposed schedule for the Commission to hold another work session through December.

Councilmember Wallace recommended that the Commission have a public hearing at their next meeting.

Mayor Smith clarified that the residents wanted to be able to comment at public hearings. She was a strong supporter of getting this issue into the public venue.

Deputy Mayor Pro Tem Dixon asked if the Town could have other stringent regulations for air quality.

Mr. Welch responded that after the Grand Prairie case, there might be some limitations on air quality standards. In terms of pipelines, state and federal law preempted the Town's ability to regulate certain pipeline issues. He stated the Town could make any centralized facility subject to any existing state and federal air quality guidelines. He noted that the state may come up with some regulations soon.

Deputy Mayor Pro Tem Dixon stated if the Town imposed air quality stipulations, there needed to be some type of monitoring. He asked if future regulations that become clearer could be added or deleted.

Mr. Welch stated the Town could make anything subject to state and federal laws that may exist in the future.

Councilmember Hayden asked if the Town was not allowed to establish more stringent regulations in air quality, could it make sure the monitoring process was occurring.

Mr. Welch responded that the Town could do that, where it was preempted under state and federal laws dealing with pipeline issues. There would be a different answer for well heads.

Councilmember Hayden stated that in Dish, Texas, governmental bodies were not following air quality guidelines in that area. He stated a baseline should be established in Flower Mound.

Mr. Welch stated there was no prohibition against the Town doing that. If the Town started mandating air quality standards on a centralized facility, that might become a legal issue.

Councilmember Hayden wanted to be proactive in testing the air quality. He asked for the cost of establishing a baseline.

Mr. Woods stated staff was working on this, and it looked to be around \$10,000. TCEQ may have their report by the end of the year. He added that there were no current monitoring stations in Flower Mound.

Mayor Pro Tem Levenick stated she was ready to move forward with Councilmember Wallace's suggestion, and hoped that the Planning & Zoning Commission public hearing was held very soon. She stated the Town did not have any regulations on testing the water at well sites, and she did not want to waste time discussing the parts that were not addressed in the ordinances.

Councilmember Filidoro agreed.

Mr. Jefferson asked if the Council wanted to follow the timeline on Slide 17, and the consensus of the Council was yes. Mr. Jefferson asked if staff should proceed with getting a baseline for air quality testing.

Councilmember Wallace suggested waiting for the TCEQ report to come out at the end of the year.

Councilmember Filidoro stated the one issue on air quality was to find a baseline for the community. He referred to the December 21 meeting and noted that many people might be leaving for the holidays.

Mayor Smith suggested scheduling a special Council meeting in January. She asked staff to look at suggested dates at the first December meeting.

Mr. Woods stated the staff could get an agreement with a contractor for the baseline test.

Mayor Pro Tem Levenick asked if the Council was deviating from the items listed on the agenda if they were going to start talking about air quality and recycling.

Mr. Welch responded that these were related to some of the standards that the Town would be looking at.

Alan Tucker, Alan Plummer Associates

Mr. Tucker stated Alan Plummer Associates had teamed with Fountain Quail to serve the gas industry to address the challenges with the collection and treatment of the flowback and production water. They had designed a system similar to what Flower Mound was discussing in Parker County. Throughout the design process they had talked with a number of gas companies to address the issues. Fountain Quail presently was operating a treatment facility in Justin.

Councilmember Hayden asked for the cost to implement a centralized collection system.

Mr. Tucker understood it was cheaper to truck off the water, and it was very expensive to collect the water and treat it.

Councilmember Hayden asked if there would have to be a recycling system at each pad site.

Mr. Tucker stated the water required pre-treatment and a system to produce distilled water. If there was going to be treating of water, a company would want to do it at one location.

Councilmember Hayden asked how much of the water could be recycled and how pure the water might be.

Mr. Tucker stated depending on the quality of the water, there might be 80% recovery. The system that Alan Plummer Associates designed would collect the water and recycle it by using it as additional frac water for future fracturing. The water was not suitable to discharge into streams. He stated it could be treated to meet stream standards, however he did not know the cost. Through research, gas drillers would not decrease the number of tanks on-site with a

centralized system. The system was designed to when the tanks filled up to a certain level, then a pump would come on in order to get into the pressurized system, which in turn would get the water to the centralized system. The company wanted to have ample storage on site to be able to bring the trucks in. He stated companies he spoke with would not reduce the tankage on-site.

Brent Halldorson, Fountain Quail Water Management

Mr. Halldorson stated they did not want to jeopardize quality of life, however there was a tremendous asset under the ground. If a company could recycle 80% of the water from fracing, they would not have to get water from fresh water supplies. He reviewed many of the slides of a presentation (that is on file in Town **Secretary's** Office). Mr. Halldorson stated he was in favor of a central pipeline system up front, noting that gas was in a pressurized pipeline system.

Mayor Smith asked what type of land mass would accommodate the centralized system.

Mr. Halldorson stated the footprint for the equipment would be about two acres. He stated that taking the water to and from well sites accounted for most of the costs.

Councilmember Hayden stated if the centralized system reduced truck traffic by 85%, it sounded like the best business practice. He stated the Town was very concerned with recycling and environmental policies.

Mr. Halldorson stated people had to protect water sources for the future.

Councilmember Hayden stated he would like to see a cost analysis for comparison.

Mr. Halldorson stated if the operations in Texas included manpower, labor and fuel, it would cost around \$3 a barrel to treat the water. A disposal well was about 65-75 cents per barrel, but did not include transportation. Mr. Halldorson stated fresh water had value. If the water was put in a truck that would add about \$1 per barrel. The further the truck has to go, the higher the cost. He stated he could provide harder numbers at a later date.

Mayor Smith referred to a proposed pipeline in Parker County and asked if the properties would be bisected.

Mr. Halldorson stated Parker County had little fresh water supply. They would be taking treated sewage from Weatherford and use that to frac the wells, noting this would be a beneficial reuse and a revenue generator for Weatherford.

Mayor Smith stated some members of the Town Council were concerned that if the Town did go to this type of technology, one site could serve many municipalities.

Mr. Halldorson stated that in Texas, he was only working with Devon. As part of the Weatherford project, they would begin to work with multiple gas producers.

Mr. Tucker noted that a treatment facility had to operate 24/7.

Mayor Smith commented that the process was driven by natural gas and Mr. Halldorson agreed.

Mr. Jefferson asked the Council if they still wanted to have independent tests of the produced water, and the consensus was yes.

Deputy Mayor Pro Tem Dixon asked staff to contact Weatherford and arrange tours with their councilmembers.

**2. Review and discuss seismic testing for natural gas production on Town-owned roadways.**

Director of Environmental Resources Matt Woods stated he had a presentation on seismic testing, but did not address each slide at this time.









Mr. Woods introduced Dr. John Nichols from Texas A&M.

Dr. Nichols reviewed his report that was in the agenda packet. He stated sensitive equipment was in the industry and could measure seismic movement with great accuracy. There were three recommendations in his report: (1) do nothing and not allow seismic testing; (2) allow the company to continue to use the Stagg and Siskind Report (which he did not recommend); and (3) understand that the ground is soft, and it might be possible to do seismic testing in safe limits.

Deputy Mayor Pro Tem Dixon referred to Page 4 of the report regarding safe levels of ground vibration.

Dr. Nichols responded that was the standard, however he did not agree with it.

The Council took a break between 8:12 p.m. and 8:24 p.m.

Ken Parr, Director of Public Works, stated that in the parameters that seismic testing will be done in, Dr. Nichols felt damage would be done to the roadways, but did not know to what extent. At the last work session the Council asked staff to get a cost summary to run the tests. Dr. Nichols would analyze the results and provide interpretations and recommendations. He stated the Town would have to hire two vibrator trucks to come in and do four tests in one day. The Town would also hire a firm to monitor the vibrations around the trucks and Dr. Nichols would do the analysis and provide a report. Staff had selected four locations for testing (two on asphalt and two on concrete).

Councilmember Hayden asked if the tests will satisfy the Town at the conclusion.

Mayor Pro Tem Levenick stated that the report may show no damage to the roadways or that there would be damage. She was concerned with the cost for the trucks since they might have to come from Midland. She preferred that the Town use the trucks that were available in the DFW area.

Mr. Parr stated staff was requesting direction from the Council on whether or not to run the tests. He stated he would use local trucks, however he would have to be on their schedule. He would probably choose a date in December. He added that he would have to use a company from another part of the country to monitor the vibrations.

Councilmember Hayden asked why taxpayer dollars would be used to do the testing. Since a specific company was making the request, he felt they should pay for the tests instead of the Town.

Mr. Parr explained that staff chose to do it this way, as it would be independent of the company that had requested to do seismic testing. The Town would control the levels at which the trucks would operate.

Councilmember Hayden suggested charging permit fees since staff had spent a huge amount of time on these issues.

Mayor Smith stated if the Town paid for the testing, it would be impartial.

Councilmember Hayden stated there had been many expenses with the requests, and perhaps the Town should reconsider the fees that were being charged.

Councilmember Wallace preferred to make a decision on allowing the testing or not, first. He suggested going back to the model agreement, and then taking a vote after a public hearing. Then based on the conclusion of the decision, determine if testing was even needed.

Mayor Smith expressed concern for individual homeowners and their properties.

Dr. Nichols referred to vibration activities from construction crews. He stated that no standard had been established for an acceptable level. He recommended that testing be done before a decision was made on whether to allow it or not.

Councilmember Wallace asked if these tests would confirm if there was damage to swimming pools, foundations, brick walls, and other amenities.

Dr. Nichols stated testing was designed to provide operating parameters for the trucks which were designed not to allow any damage to those things, and then to measure the quantifiable damage to the roads. He stated the goal was for no one's house to be damaged, but what level of vibration was allowed. Until he had the measurements, he could not offer any recommendations on how much vibration could be allowed.

Mr. Parr stated the locations that had been chosen for testing were: Shiloh Road (midpoint and over 300 feet from the nearest structure); Lakeside area (Silveron); north/south portion of Raintree; and Scenic (just east where the western end of Wichita Trail intersects Cardinal and Scenic).

Councilmember Hayden stated Denton allowed seismic testing, but not over their infrastructure. He was concerned with what was under the ground.

Mr. Parr stated cities did not allow testing over a buried utility.

Councilmember Hayden asked what litigation risks the Town had. If the Town did do the testing, would it be beneficial in court.

Mr. Welch stated the real issue was that the Town was protected if there was litigation. One provision of the model agreement was the indemnification. He noted the Town had not negotiated all the terms of the model agreement.

Councilmember Hayden stated the model agreement had provisions for getting waivers from residents within 300 feet of the testing. He added that there should be consideration for private property.

Mr. Jefferson stated there were a number of outstanding issues in the model agreement. He recommended making headway on those issues before spending money on testing.

Mayor Smith asked that for the next meeting, staff provide a checklist of the issues that were outstanding in the model agreement.

Councilmember Wallace asked for the other issues.

Mr. Welch stated the issues included indemnification, dollar amounts, and the number of feet from structures that would require a waiver.

Mr. Jefferson stated distance was important. Staff could use the map to see what

areas were available.

Mr. Woods showed the map of the 300 foot setback.

The Council asked to see a map of the Town's infrastructure and where seismic testing could be allowed.

Deputy Mayor Pro Tem Dixon stated the taxpayers did not ask for running tests for seismic testing. He stated if a company wanted to do seismic testing, they should bare the burden of paying for the test. From the analysis they would be able to say how much damage would be done, and how far from a structure they would have to be.

Mayor Pro Tem Levenick wanted the Town to do what it could to protect all the residents, and should pay for the testing.

Deputy Mayor Pro Tem Dixon clarified that the Town could do the testing, but the company should pay for it.

Councilmember Wallace stated he would like to bring these issues forward on December 7. He wanted to see a map with all the setbacks. He stated the Town should not spend money until a decision was made about seismic testing.

Mayor Pro Tem Levenick stated the model agreement should be presented in a public forum so that all the points could be addressed and the residents could be apprised of what the Town would be agreeing to.

Mr. Jefferson stated staff would be prepared for the December 7 meeting.

Mayor Smith suggested posting the maps on easels or walls for the meeting.

Councilmember Hayden suggested that the study from Dr. Nichols, be edited to make the recommendations generic and the put it on the website.

Mayor Smith asked staff to put a synopsis on the website.

**E. ADJOURN WORK SESSION**

Mayor Smith adjourned the work session at 9:08 p.m.

**TOWN OF FLOWER MOUND, TEXAS**

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**JODY A. SMITH, MAYOR**

**ATTEST:**

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**PAULA J. PASCHAL, TOWN SECRETARY**

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