

Town Council Briefing Session October 5, 2009

Produced Water Pipelines
Land Use and Centralized Facilities
Seismic Operations

Produced Water Pipelines

- Produced water or production fluid is the fluid or wastewater resulting from the drilling, completion, and production processes.
- The produced water has a high saline content and other constituents associated with the drilling and production processes.
- The Town's regulations allow for produced water pipelines on permitted gas well pad sites for storage and removal from the same permitted pad site.

Produced Water Pipelines

- Staff received a proposal for a produced water gathering and storage system.
- The system would transport produced water from other pad sites/locations to a central storage location for removal by wastewater hauling trucks.
- Truck traffic would be diverted from multiple pad sites to a centralized storage location or “tank farm”.
- The Town’s regulations do not address the gathering system and will not allow the centralized collection facility as proposed.
- Amendments to the oil and gas well and pipeline regulations would be required to establish standards for a gathering system.

Master Plan / Zoning Issues

- A gas well pad site is allowed in any zoning district.
- The central collection facility is, in essence, a “tank farm” which also may have other structures and facilities located on it other than storage tanks.
- This use does not fit any uses described in the Zoning Ordinance.

Master Plan / Zoning Issues

- The Town's Zoning Ordinance describes in detail the uses that are permitted on agriculturally zoned land and those uses which require a specific use permit.
- Following is a listing of permitted uses and specific uses on agriculturally zoned property, pursuant to Sections 98-272 and 98-273 of the Code of Ordinances:

Permitted Uses

- Accessory use
- Carnival or circus, temporary
- Church or rectory
- College or university
- Community center, public
- Convent or monastery
- Country club, private
- Crop agriculture
- Day camp for children
- Day care home
- Dwelling, single-family detached
- Fire station
- Fruit and vegetable stand
- Garage sale
- Golf course, public
- Greenhouse, wholesale
- Home occupation
- Keeping of livestock or poultry
- Local utility line
- Model home
- Off-street parking, accessory
- Park or playground, public
- Public building, shop or yard
- Railroad track
- Recreation center, public
- School, elementary or secondary
- Sewage pump station
- Stadium or playfield, public
- Swimming pool, private
- Swimming pool, public
- Telephone equipment station
- Water well, storage or pump station

Specific Use Permit Required

- Accessory dwelling
- Airport or landing field
- Amusement and recreation (outdoors)
- Amusement and recreation (indoors)
- Animal control facility
- Animal exhibition
- Aviary
- Boat storage and service
- Caretaker or guard residence
- Cemetery or mausoleum
- Communication tower, commercial
- Day care center
- Dude ranch
- Dump or sanitary landfill area
- Electrical energy generating plant
- Electrical line/substation, high voltage
- Exhibition area or fairgrounds
- Farmers' market
- Fraternal club or lodge
- Golf course, private
- Heliport
- Helistop
- Hospital
- Institution, drug or psychiatric treatment
- Kennel (in enclosed building only)
- Kennel (in enclosed building only)
- Kennel (with outside runs or pens)
- Kennel (with outside runs or pens)
- Livestock auction or feed lot
- Marina
- Mining and quarrying
- Mortuary or funeral home
- Museum, library or art gallery, public
- Nursing or congregate care facility
- Petroleum storage/collection facility
- Private utility shop, yard or building
- Private franchise utility (not listed)
- Railroad team track
- Rodeo grounds
- School, commercial trade
- Sewage treatment plan
- Stable, commercial boarding or rental

Master Plan / Zoning Issues

- Agriculturally zoned property does not support the contention that the “tank farm” is permitted in such zoning classification.
- A central collection facility is more of an industrial use.
- However, none of the listed uses or specific uses for either the Industrial-1 (I-1) or Industrial-2 (I-2) districts is applicable either.

Master Plan / Zoning Issues

- A “proposed use[] shall be classified into the use category that most closely portrays the overall nature of such activity. Any use that cannot be so classified shall not be permitted in any district.” Code of Ordinances, § 98-952(b).
- Therefore, a produced water central collection facility is neither a permitted use nor a specific use under any zoning classification in the Town.

Master Plan / Zoning Issues

- A central collection facility on an agricultural tract in western Flower Mound could require up to three of the following approvals:
 - a Master Plan amendment
 - an amendment to the Zoning Ordinance to permit the produced water central collection facility as a permitted use or specific use in a zoning district
 - an amendment to the zoning on the tract.
- Additionally, the tract would have to be platted in conformance with the Town's subdivision standards before any permits for this use could be issued.

Seismic Operations

- The Town's regulations require seismic operators to provide the following information:
 - Notification seven business days prior to commencing work
 - The location, date, and time of the survey
 - Survey method being used
 - Date and time of survey completion
- These requirements apply to the regulation of these activities on any property in Town, but does not imply permission to conduct these activities on Town property without Town consent
- The Town has the same property rights as any landowner relative to allowing seismic operations in the right-of-way

Seismic Operations

- The prevalent method being used in the area for seismic surveys is vibroseis.
- Vibroseis is conducted by vibration trucks of varying weight (typical gross weight is ~ 60,000 pounds).
- The trucks are equipped with plates that vibrate on the ground or surface.
- The vibroseis method delivers energy signals or seismic waves into the subsurface formation to obtain data recorded by surface receivers.

Seismic Operations

- Staff has received several requests to conduct vibroseis on the Town's roads.
- The requests have been denied due to the concern for potential damage to the roads and adjacent infrastructure that could shorten the life of the Town's infrastructure.
- The pavement cross-section of many older asphalt roads in Town is unknown.
- The Town has an estimated \$450 million asset in its roadway infrastructure to replace in the next 20+ years; ¼-cent dedicated sales tax approved to address this need
- Staff has asked for technical data/research to support the assertion that vibroseis testing on paved surfaces will result in no damage; no applicable information has been provided

Is Street Maintenance in Flower Mound Under-funded?

- Short answer is it appears so, based upon several comparisons:
 - The GASB 34 2006 reported depreciation of Town streets of \$9,738,434
 - Town's current annual street maintenance budget is \$685,444
 - Depreciation to Expenditure ratio of 14:1

Is Street Maintenance in Flower Mound Under-funded?

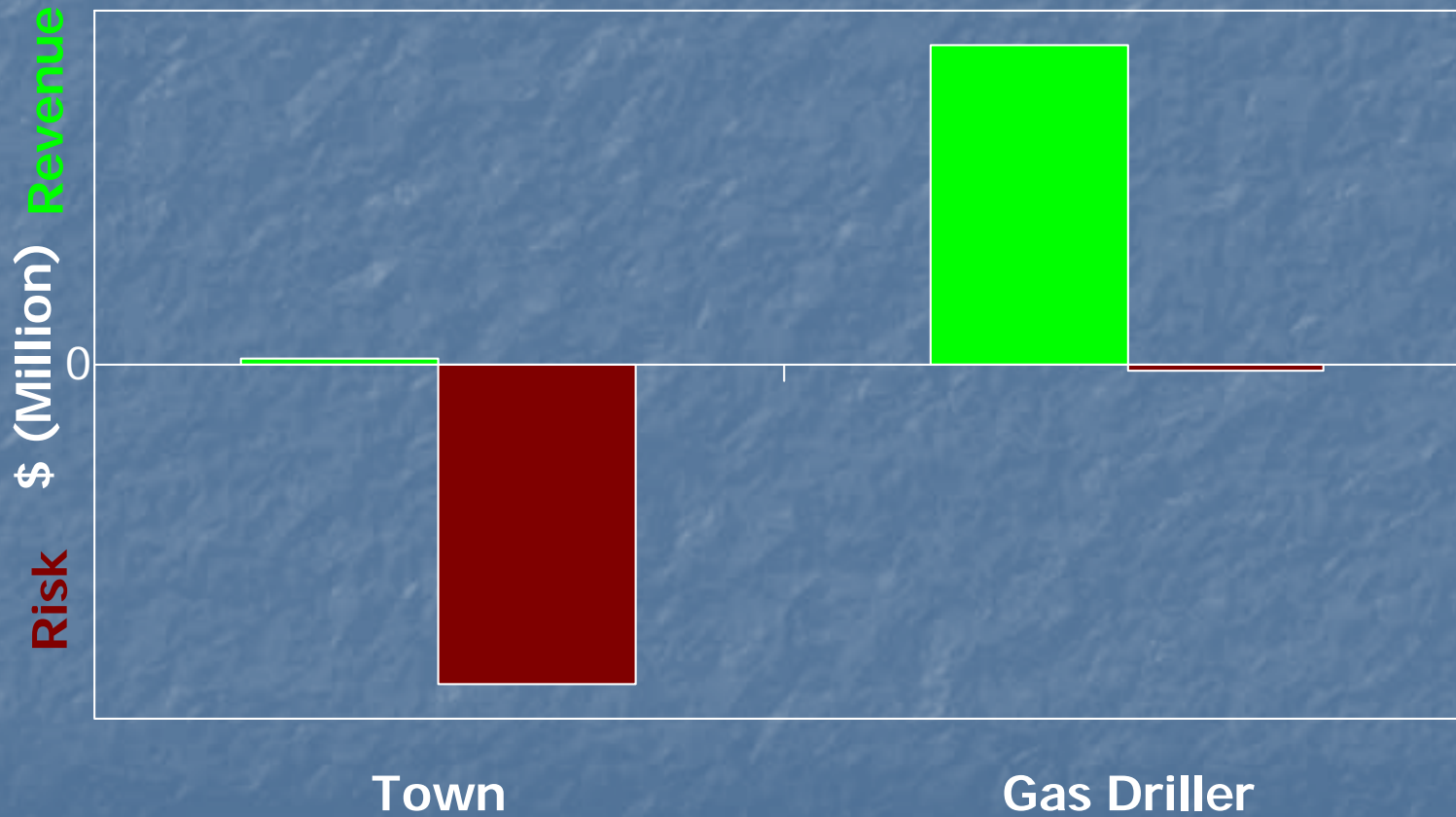
- Short answer is it appears so, based upon several comparisons:
 - The GASB 34 2008 reported depreciation of Town streets of \$10,498,476
 - Town's current annual street maintenance budget is \$3,368,828
 - Depreciation to Expenditure ratio of over 3:1

Seismic Operations



- Replacement Cost?
- Indemnification?
- Neighbors Waive Liability?
- Require Insurance Limit?

Seismic Operations



Is Seismic Allowed on Public Streets?

Allen	No, No requests have been made at this time.
Carrollton	No
Colleyville	No, Only on Private Property
Coppell	No, Must get ROW Use Permit
Denton	Yes, Geophysical Survey License Required
Frisco	No
Grapevine	No
Irving	No Response
Lewisville	No
McKinney	No, No requests have been made at this time
North Richland Hills	No
Plano	No, No requests have been made at this time
Richardson	No
Rowlett	No
Southlake	Yes

Next Steps

- October 15th Town Council Work Session

Thank You