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May 29, 2007

Mr. Glenn Shankle
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

VIA HAND-DELIVERY

Re: Petition for Rulemaking (1280-1)

Dear Mr. Shankle:

Enclosed please find one (1) original and seven (7) copies of a Petition for Rulemaking filed on behalf of the City of Midland (the "City") requesting authorization for the construction and operation of reclaimed water production facilities. Please date stamp one of the enclosed copies and return it to us via our courier. We respectfully request that this Petition be set for consideration and Commission action in July and look forward to working with all concerned on this matter.

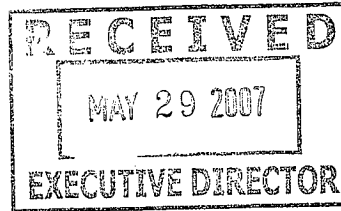
If you have any questions regarding this petition, please feel free to call either Mr. Robert H. Lloyd (512-322-5805) or me at your convenience.

Sincerely


Brad B. Castleberry

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ENCLOSURE

cc: Mr. Derek Seal, Office of General Counsel, TCEQ
Mr. Dan Eden, TCEQ
Ms. L'Oreal Stepney, TCEQ
Mr. Anthony Tatu, TCEQ
Mr. Russ Kimble, General Law Division, TCEQ
Ms. Kay Snyder
Mr. Marcus Johnston
Mr. Duwain Whitis
Mr. Robert H. Lloyd



PETITION FOR RULEMAKING
BY THE CITY OF MIDLAND
AUTHORIZING THE
CONSTRUCTION OF RECLAIMED
WATER PRODUCTION FACILITIES

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BEFORE THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

ORIGINAL PETITION FOR RULEMAKING

TO THE HONORABLE COMMISSIONERS:

Now comes the City of Midland (the "City") and pursuant to 30 Texas Administrative Code ("TAC") Chapter 20 hereby presents this Petition for Adoption of Rule (the "Petition") to the Texas Commission on Environmental Quality ("the Commission") seeking administrative rules that would authorize the construction of reclaimed water production facilities, and respectfully requests that the Commission consider this Petition and the rule proposed as set out herein (the "Rule") and initiate proceedings necessary to adopt the Rule. Pursuant to the provisions of 30 TAC § 20.15, the City would respectfully show the following:

I. Public Policy Benefits

This Petition is submitted in the interest of furthering the statewide public policy of efficiently utilizing and conserving our water resources. Throughout history, the State of Texas has grappled with a means of providing adequate water supplies, especially in arid parts of the state, to meet the demands of its citizen, while preserving resources for the environment and future generations. Over the last 20 years, technology has evolved to allow for the production of high quality reclaimed water, what used to be considered "wastewater," for certain limited applications, in order to replace the demands on potable and other fresh water resources. Indeed, the use of reclaimed water has grown dramatically over the years and is a planned water management strategy

to meet the demands of a large portion of the state. See, *Water for Texas 2007*, Texas Water Development Board, January 2007.

The Commission already acknowledges and promotes the efficient use of reclaimed water through its rules promulgated at 30 TAC Chapter 210 (related to the use of reclaimed water). What the Commission does not currently do, that this Petition seeks to do, is allow for the ability to produce reclaimed water where the demand exists in order to further this goal. Under the current regulatory framework, there is an economic disincentive to use reclaimed water unless the demand is within close proximity to existing treatment facilities. Indeed, without some change to the current framework, the only means of attempting to use reclaimed water from additional facilities is to get individual construction and *disposal* authorizations. However, the public policy goal that the City strives to reach is to use the *resource* that is reclaimed water, not dispose of it as a waste. As such, there needs to be more flexibility to allow the City, and other entities, to construct reclaimed water production facilities to offset demands on existing fresh water sources, and to more efficiently use our state's natural resources.

By this Petition, the City requests that the Commission further its support for the use of reclaimed water as a public policy goal for the State of Texas and adopt rules authorizing the construction of reclaimed water production facilities as specified herein.

II. Petitioner's Name and Address

The City is a home rule municipality that supplies approximately 98,978 citizens with wholesale and retail water service. For purposes of the Petition, contact with the City can be made by directing all correspondence to the undersigned at the address provided herein.

III. Brief Explanation of Proposed Rule

The City proposes the Rule as an effort to promote conservation and the efficient use of existing water resources. The Rule would facilitate the Commission's current policies established in Chapter 210 (relating to the use of reclaimed water), and provide flexibility for the City to construct reclaimed water production facilities at a location other than the City's existing publicly owned treatment works ("POTW").

The Rule has been drafted to provide for a simple regulatory mechanism to authorize the construction of reclaimed water production facilities at a location other than a POTW. As drafted, the Rule would authorize the construction of reclaimed water production facilities designed in accordance with provisions of Chapters 309 (relating to domestic wastewater effluent limitation and plant siting) and 317 (relating to design criteria for sewerage systems). The beneficial use of the reclaimed water produced from said facilities would be regulated in accordance with Chapter 210.

As proposed, the Rule would not authorize the construction of reclaimed water production facilities unless the applicant can demonstrate that i) it has an existing Texas Pollutant Discharge Elimination System ("TPDES") or Texas Land Application Permit ("TLAP") authorizing the discharge or disposal of treated effluent; ii) the POTW is permitted, designed, and constructed to handle the entire flow of the sewershed collection system in the event the reclaimed water production facilities are not in operation; and iii) the reclaimed water production facilities will produce treated effluent consistent with the requirements of Chapter 210.

The Rule has been drafted to explicitly prohibit the discharge of pollutants into waters of the State. The Rule would also prohibit any on-site biosolids management, and would maintain

all design criteria and buffer zone requirements currently established by other rules. The Rule has been drafted to protect the integrity of the POTW in the event of a slug loading due to the reclaimed water production facilities' failure to operate for an extended period of time. Under the Rule, operational provisions must be included in the application to construct the reclaimed water production facilities and all monitoring and reporting requirements proposed are consistent with the provisions of Chapters 305 (relating to Consolidated Permits) and 210.

IV. Text of the Proposed Rule

The text of the Rule is provided hereto as Exhibit A.

V. Statement of Legal Authority for Proposed Rule

The Rule is proposed to be adopted pursuant to the following authority:

- a. Texas Water Code §§5.102 and 5.103, which authorize the Commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code.
- b. Texas Water Code §5.013(a)(3), which grants the Commission jurisdiction over the state's water quality program, including the issuance of permits and other necessary authorizations.
- c. Texas Water Code §26.121, which regulates the discharge of pollutants into or adjacent to waters of the State.
- d. Texas Water Code §26.027, which authorizes the Commission to issue permits that regulate the discharge of pollutants into or adjacent to waters of the State.
- e. Texas Water Code §11.046(c), which authorizes the use and beneficial reuse of reclaimed water before discharge or disposal.
- f. Texas Water Code §11.002(8), which defines conservation as those practices, techniques and technologies that will improve the efficiency in the use of water.
- g. Texas Water Code §11.1271(e), which requires the Commission to develop model water conservation programs that suggest best management practices for achieving the highest practicable levels of water conservation and efficiency.
- h. The 2007 State Water Plan, *Water for Texas 2007*, which recognizes that reuse is an important water management strategy to meet the growing needs for water by the people of Texas.

VI. Injury or Inequity Resulting From Failure to Adopt Proposed Rule

The Rule is important to the City for the following reasons:

1. The Rule is needed to facilitate the efficient use of existing water resources;
2. The Rule is needed to reduce the cost of using reclaimed water under the current regulatory regime; and
3. The Rule is needed to provide the City with flexibility in supplying reclaimed water to the location of the demand.

The City is located in an arid part of the state. Out of necessity and prudence, the City must use its existing water resources always with an eye toward efficiency. The City's primary source of supply is from the O. H. Ivie and E. V. Spence Reservoirs (the "Reservoirs") pursuant to a water supply contract with the Colorado River Municipal Water District ("CRMWD"). The City also diverts water from the Ogallala aquifer. Both of these resources have a finite amount of water available for diversion and use.

The City owns and operates a POTW, which is a 21 million gallon per day ("MGD") wastewater treatment plant located immediately southwest of Interstate Highway 20 and State Highway 307. The City's POTW is permitted to dispose of treated effluent by irrigating approximately 6,000 acres of land outside the City's incorporated boundary. The City has a high irrigation demand within a commercial area located along West Wadley Avenue between North Garfield Street and North Big Spring Street. This commercial area includes Midland College, Windlands Park, and other nearby areas. The commercial irrigation demand is currently being met through the supply of potable water from the City's water treatment plant and distribution system. The water treatment plant and distribution system provide water that is produced from the Reservoirs and/or the Ogallala aquifer. To alleviate the cost of pumping/producing water

from these sources, treating it to a potable standard, and then conveying said water to the commercial customers for outside irrigation, the City would like to utilize treated wastewater effluent, also known as reclaimed water, to meet this irrigation demand.

The Commission already promotes the beneficial use of reclaimed water for this type of scenario. It is indeed an efficient means of conserving existing water resources. The Commission has adopted provisions within 30 TAC Chapter 210 to facilitate the use of reclaimed water. Under current Commission rules, the City could apply for authorization to use reclaimed water produced by the POTW, and could be granted authorization to convey reclaimed water from the POTW to the place of commercial demand. With respect to the City, however, the straight-line distance from the POTW to the place of commercial demand is approximately six miles.

To authorize the use of reclaimed water under current Commission rules would require the City to construct a pipeline and related infrastructure to convey reclaimed water from the POTW to the place of commercial demand. The City would be required to install this infrastructure through densely developed urban areas. The initial cost to complete such a project is estimated as \$10,500,000. Operational and maintenance costs associated with such a project – including costs for the significant amounts of energy required to pump reclaimed water from the POTW to the place of use – are expected to exceed \$190,000 per annum.

The City has a sewer interceptor near the commercial irrigation demand that could provide enough raw wastewater to produce the requisite volume of reclaimed water desired for irrigation. The City has explored the option of diverting a portion of raw sewage flows from this interceptor and treating same via reclaimed water production facilities located at or near the place of demand. This option would allow the City to satisfy its commercial irrigation demands

with the use of treated reclaimed water without requiring the construction of an expensive pipeline. Although this alternative project would involve a collection basin, pump station, treatment units, and storage and conveyance facilities, given the proximity of the facilities to the demand, the cost to construct such a project is estimated at only \$2,000,000. This represents a savings of 80% over the type of project that the current Commission rules would authorize. Moreover, it is expected that the operational and maintenance costs of such a project would be less than its counterpart, especially given the savings realized through not having to divert from the Reservoirs or the Ogallala aquifer, and not having to pump reclaimed water from the POTW.

There is a regulatory mechanism for the City to secure a land application permit for the *disposal* of treated effluent via irrigation, and this mechanism could be used to dispose of treated effluent at or near Midland College and the other commercial areas. The City already has secured such disposal authority for the irrigation of crops pursuant to TLAP No. 10223001. However, the City is not seeking to irrigate with the quality of effluent authorized pursuant to that permit. Instead, the City desires to reuse high quality treated reclaimed water for outdoor irrigation. The City also does not want to identify a "disposal area" within Midland College or the rest of the commercial irrigation demand area, and does not want to have limitations on the areas where it can beneficially re-use highly treated reclaimed water. That is why the City has filed this Petition.

By this Petition, the City requests the Commission grant it the authority to construct reclaimed water production facilities to provide reclaimed water from a source other than the POTW. The City is not seeking the authority to discharge or dispose of additional treated effluent pursuant to Chapter 305. Instead, it seeks the authority to divert a stream of raw sewage in order to produce a source of reclaimed water to meet a demand for commercial irrigation. The

City would like the flexibility to do this under the current permitting regime of Chapter 210. The only change the City seeks to the current Commission rules, by way of this Petition, is the addition of explicit authority to construct reclaimed water production facilities on a site other than that of the POTW.

The City is not the only entity that could more efficiently utilize its existing water resources given the flexibility that the Rule would allow. Such authorization, if granted, could facilitate the efficient use of reclaimed water at a number of locations across the state. The City does recognize that adoption of the Rule could be perceived as a means of allowing entities to circumvent the permitting regime of Chapter 305. In this regard, the City has proposed significant limitations in the proposed Rule to alleviate those concerns. The City is not proposing to have any additional rated POTW capacity associated with the reclaimed water production facilities, nor does the City seek the authority to dispose of any byproducts from the production process at the reclaimed water production facilities. The City is simply seeking the authority to produce a resource that could be used to offset demand that is currently being placed on the limited surface and groundwater resources of the area.

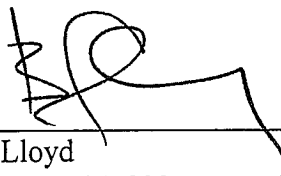
In sum, the City submits that the Rule will serve only to further an existing policy adopted by the Commission – that of most efficiently utilizing existing water resources by promoting the use of reclaimed water. If granted, the Rule proposes to save raw water and electric power resources. Moreover, the Rule will provide the City with significant financial relief from having to construct unnecessary conveyance facilities from the City's POTW. The Rule, or some version thereof, is a positive step towards further promoting the use of reclaimed water, and the City respectfully requests the Commission adopt such a policy pursuant to this Petition.

VII. Prayer

WHEREFORE, premises considered, the City respectfully requests that the Commission consider this Petition and the Rule as proposed herein, and initiate proceedings necessary to adopt the Rule. The City further prays for any and all other relief to which it may be entitled.

Respectfully submitted,

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ATTORNEYS FOR CITY OF MIDLAND

30 TEX. ADMIN. CODE
CHAPTER 321
SUBCHAPTER P
RECLAIMED WATER PRODUCTION FACILITIES

321.300 Definitions

(a) The following words and terms, when used in this subchapter, shall have the following meanings, unless the context indicates otherwise:

(1) *Facility* – reclaimed water production facilities authorized in accordance with this subchapter.

(2) *Permit* – a permit issued by the Commission pursuant to Texas Water Code Chapter 26 authorizing the discharge or disposal of treated effluent from treatment works treating domestic sewage as that term is defined pursuant to Chapter 305 (relating to Consolidated Permits).

(3) *POTW* – the publicly owned treatment works to which domestic or municipal wastewater that is treated by the facility would flow and be treated if the facility were not in operation.

(4) *Reclaimed water* – domestic or municipal wastewater which has been treated to a quality suitable for a beneficial use, pursuant to the provisions of Chapter 210 (related to use of reclaimed water) and other applicable rules and permits.

321.301 Purpose and Applicability

(a) The purpose of this subchapter is to establish general design and operational requirements for the construction of reclaimed water production facilities in order to promote the beneficial use of reclaimed water which may be substituted for potable water and/or raw water.

These criteria are intended to facilitate the safe production of reclaimed water for conservation of surface and ground water; to ensure the protection of public health; to protect ground and surface waters; and to help ensure an adequate supply of water resources for present and future needs.

(b) Reclaimed water production facilities authorized pursuant to this subchapter do not require a new or amended waste discharge permit from the Commission except as provided in 30 TAC §210.5 (relating to permits required for the use of reclaimed water). The provisions of this subchapter apply only to those entities that have been issued a permit by the executive director, and the operation of facilities authorized pursuant to this subchapter is conditioned upon the continued effectiveness of the permit.

321.302 General Requirements

(a) Applicant must have an existing permit that authorizes the treatment and discharge or disposal of effluent from the POTW, and such authorization shall not be in addition to the treatment capacity authorized herein, but must be sufficient to address all wastewater flow from the system as identified in Chapter 305 (relating to consolidated permits).

(b) In addition to having issued a permit, or an amendment to a permit, prior to granting authorization pursuant to this subchapter, the executive director must have considered and approved an application for the beneficial reuse of reclaimed water in accordance with Chapter 210 (related to use of reclaimed water). Applications for the authorization to construct reclaimed water production facilities and the beneficial reuse of reclaimed water may be considered concurrently by the executive director.

321.303 Restrictions

- (a) This subchapter does not authorize the addition of pollutants to waters of the state.
- (b) Facilities authorized pursuant to this subchapter may not treat or dispose of biosolids in accordance with the provisions of Chapter 317 (related to design criteria for sewerage systems) or 312 (related to sludge use, disposal and transportation). All biosolids must be conveyed to the POTW, treated, and disposed of in accordance with the permit.
- (c) Facilities authorized pursuant to this subchapter may not individually or collectively exceed the rated capacity of the POTW authorized by the permit, nor may they be authorized at a flow rate that could cause interference to the POTW.

321.305 Application Requirements

- (a) Applicants shall comply with the applicable provisions of 30 TAC §§305.43, 305.44, and 305.47 of this title (relating to who applies; signatories to applications; and retention of application data).
- (b) An application for authorization to construct reclaimed water production facilities under this subchapter shall be made on forms prescribed by the executive director. The applicant shall submit one (1) original completed application with attachments and six (6) copies to the executive director, and one (1) additional copy of the application with attachments to the appropriate regional office. The completed application shall be submitted to the executive director signed and notarized and with the following information:
 - (1) The verified legal status of the applicant.
 - (2) The payment of applicable fees.
 - (3) The signature of the applicant, in accordance with agency requirements.

(4) A County General Highway Map (with graphic scale clearly shown) to identify the relative location of the facility and at least a one-mile area surrounding the facility.

(5) One original (remainder in copies) U.S. Geological Survey 7 ½-minute quadrangle topographic map or an equivalent high quality copy showing the boundaries of land owned, operated or controlled by the applicant and to be used as a part of the facility.

(6) A copy of a recorded deed or tax records showing ownership, or a copy of a contract or lease agreement between the applicant and the owner of any lands to be utilized.

(7) A copy of the applicant's existing permit issued pursuant to Chapter 305 (relating to consolidated permits).

(8) A copy of the applicant's existing authorization issued pursuant to Chapter 210 (relating to use of reclaimed water), or, in the alternative, a copy of a concurrent application filed related to same.

321.306 Application Review

(a) An application for authorization to construct reclaimed water production facilities filed pursuant to this subchapter shall be reviewed by the executive director for administrative and technical completeness within 30 working days of receipt of the application by the executive director. Upon determination that the application contains the information and attachments required under this subchapter, the executive director shall declare that the application is administratively and technically complete.

(b) An application for authorization to construct reclaimed water production facilities will be considered by the executive director in accordance with the terms and conditions of Chapter 317 (related to the design criteria for sewerage systems).

321.307 Authorization to Construct

(a) Final approval authorizing the construction of reclaimed water production facilities shall be granted in accordance with the terms and conditions of Chapter 317 (related to the design criteria for sewerage systems), and in conjunction with, or subsequent to, authorization granted in accordance with Chapter 210 (relating to use of reclaimed water).

321.315 Design Requirements

(a) With exception of the following requirements, all facilities shall be designed in accordance with the requirements of Chapter 317 (related to the design criteria for sewerage systems).

(1) Requirements for redundant treatment units or processes, including power supplies, shall be waived if, as determined by the executive director, the design incorporates satisfactory provisions that ensure the quality of effluent meets the prescribed standards in the event of a failure of the power supply or a treatment unit or process.

(2) The facility shall be designed in a manner that conveys all wastewater to the POTW at any time the facility is not in operation.

(3) The facility shall be designed to convey all biosolids produced by the facility to the POTW.

(b) Unless otherwise authorized, any facility authorized pursuant to this subchapter shall comply with the provisions of Chapter 309, Subchapter B (related to the location standards for plant siting).

321.316 Operation and Maintenance Requirements

(a) Prior to completion of construction of a new facility or facility expansion, an operation and maintenance manual covering the recommended operating procedures and maintenance practices for the entire facility shall be prepared by the design engineer. The design engineer shall submit a letter to the executive director certifying that this action has been performed and shall furnish a copy of the operation and maintenance manual to the executive director upon request.

321.317 Monitoring and Reporting Requirements

(a) All monitoring and reporting requirements shall be developed in accordance with the provisions of Chapter 210 Subchapter C (related to use of reclaimed water), and shall be reported in accordance with the terms and conditions of Chapter 305 (relating to consolidated permits) and the permit.

321.320 Enforcement

(a) If any facility regulated by this subchapter fails to comply with the terms of this subchapter, the executive director may take enforcement action as provided by the Texas Water Code and in accordance with Chapter 70 of this title (relating to Enforcement). The executive director may revoke any authorization granted to construct and operate a facility due to noncompliance with the requirements of this subchapter, or the requirements of Chapter 210 (relating to use of reclaimed water), but only after notice and the opportunity for hearing.

321.321 Consolidated Application

(a) An applicant may file a consolidated application for authorization to construct reclaimed water production facilities pursuant to this subchapter in conjunction with a request to beneficially re-use reclaimed water pursuant to Chapter 210 (relating to use of reclaimed water).