



## Invitation for Project Proposals Related to the Development of Oil & Gas Water-Related Infrastructure on Permanent University Fund Lands

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### Background & Resources

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Through this Invitation, University Lands (UL), an organization within the broader University of Texas System, invites project proposals from qualified companies for the design, construction, operation, maintenance, and eventual decommissioning of water-related infrastructure on Permanent University Fund Lands (PUF Lands).

Taking into account the geographic scale of the PUF Lands and its expansive existing lessee-owned oil and gas infrastructure and activity, University Lands seeks “partners” to mutually capitalize on this scale by building out the Permian Basin’s groundwater infrastructure with a specific focus on increasing resource development from PUF Lands. **University Lands seeks proposals related to “full-cycle water management” with three primary goals in mind:**

- 1) To support an increase in oil and gas production on PUF Lands
- 2) To decrease operator costs for water-related operations critical to continued, increased oil and gas development on PUF Lands, and
- 3) To minimize the industry’s environmental footprint across PUF Lands and the broader Permian Basin

Elements of a full-cycle water management system may include, but are not limited to:

- Water disposal processes that simultaneously increase efficiencies and reduce truck traffic
- Midstream water pipeline projects that service areas with high oil and gas activity
- Salt water disposal-related projects that simultaneously provide storage solutions and minimize potential for seismicity-related issues
- Economical ideas that encourage operators to source water directly from PUF Lands
- Leasing of UL water rights for sales to operators in geographic areas with high oil and gas activity

**Water-sourcing on PUF Lands:** Mineral developers operating on PUF Lands have the option (though not the obligation) to drill water wells and source groundwater from their UL leasehold. Operators pay for water sources from PUF Lands on a per barrel basis at a market-informed rate, which is currently \$.35/barrel as of January 2018. Mineral developers typically manage water solely for their own use by developing a series of water wells, frac ponds and salt water disposal wells. On occasion, operators install produced water treatment facilities.

The current rate of water use for hydraulic fracturing sourced from PUF Lands is ~125,000,000 barrels per year, with an expectation for an increase in demand as oil production hits record highs and commodity prices hover at the highest prices we've seen in the last few years. Approximately 50% of total water used in hydraulic fracturing operations on PUF Lands is sourced directly from PUF Lands with the remaining 50% being sourced from off-lease or recycled.

**Study of Interest:** In 2015, UL engaged Daniel B. Stephens & Associates, Inc. to evaluate groundwater resources on the PUF Lands in the most active mineral development counties. Reports were prepared for the Northern Area (Andrews, Loving, Ward, Winkler, and Ector Counties) and Southern Area (Reagan, Crockett, Irion, Schleicher, Upton, and Pecos) and are provided on the University Lands' website at the following links:

1. [ftp://publicftp.utlands.utsystem.edu/HydrogeologicReports/Northern\\_Area\\_Hydrogeologic\\_UniversityLands.pdf](ftp://publicftp.utlands.utsystem.edu/HydrogeologicReports/Northern_Area_Hydrogeologic_UniversityLands.pdf)
2. [ftp://publicftp.utlands.utsystem.edu/HydrogeologicReports/Southern\\_Area\\_Hydrogeologic\\_UniversityLands.pdf](ftp://publicftp.utlands.utsystem.edu/HydrogeologicReports/Southern_Area_Hydrogeologic_UniversityLands.pdf)

Much of the minerals are leased in areas that are available for water-related projects, and all of the surface is currently leased by grazing lessees. However, University Lands maintains the contractual rights to its groundwater and surface assets. More information on leases and oil and gas activity can be found by using the following applications:

1. University Lands Interactive Lease Map:  
<http://gis.utlands.utsystem.edu/webmapjs/index.htm>
2. University Lands Interactive Well Data Map Application:  
<http://gis.utlands.utsystem.edu/WellDataApp/>
3. University Lands GIS Data:  
<http://www.utlands.utsystem.edu/Resources/GIS>

University Lands' Water-Related Policies:

1. [http://www.utlands.utsystem.edu/Content/Documents/Operations/Groundwater\\_Management\\_Plan.pdf](http://www.utlands.utsystem.edu/Content/Documents/Operations/Groundwater_Management_Plan.pdf)
2. [http://www.utlands.utsystem.edu/Content/Documents/Operations/Prod\\_Water\\_FracPit\\_Specifications.pdf](http://www.utlands.utsystem.edu/Content/Documents/Operations/Prod_Water_FracPit_Specifications.pdf)

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## Scope of Work

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The underlying scope of this project is to realize University Lands' belief that the Permian Basin oil and gas industry would greatly benefit from a more holistic approach to full cycle groundwater management whereby multiple operators utilize and benefit from "shared" infrastructure spanning PUF Lands and beyond.

To this endeavor, University Lands aims to make available its groundwater and land (surface) resource to increase regional efficiencies in the areas of:

1. Sourcing & Supply (groundwater, flow-back and/or produced water)
2. Recycling
3. Disposal
4. Transfer
5. Impoundment
6. Field and Lab Testing, and
7. Reclamation (to restore sites to environmentally safe and productive use)

UL will entertain proposals related to projects on PUF Lands in Andrews, Dawson, Gaines, Martin, Loving, Ward, Winkler, Crane, Ector, Irion, Schleicher, Crockett, Reagan, Pecos, and Upton counties. A map of acreage available for projects is attached to this Invitation.

Proposals that incorporate multiple businesses that bring different elements of full-cycle water management to the table are encouraged and will be considered (joint ventures, etc.).

University Lands may select any, all, or none of the proposed projects and is in no way obligated or bound to any proposed project.

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### **Proposal/Project Requirements**

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Proposals should include a detailed business plan outlining the project, how the project addresses each of the below requirements, as well as any additional relevant information:

- 1) All projects must directly or indirectly economically benefit University Lands. Proposals should include pro forma project financials including projections of revenue to University Lands over the lifetime of the project
- 2) Proposals should provide a cost analysis of the full life of the project, including construction, operation, maintenance and decommissioning
- 3) Proposals should detail the projected reduction in water-related costs to specific operators on PUF Lands
- 4) All projects must comply with University Lands water-related policies, including the University Lands Groundwater Management Plan and other policies which outline specifications for baseline sampling, water well construction, water transfer and water impoundment
- 5) All technology and equipment which is proposed to be employed must meet regulatory and safety requirements, and must already be proven as commercially viable
- 6) Proposers are responsible for acquiring and maintaining all applicable present and future federal, state and local approvals, licenses, permits or variances, and applicable environmental rules and regulations to meet specific requirements to construct and/or operate any facility and associated facilities
- 7) Risk, both operational and financial, to University Lands, the University of Texas System and the actual PUF Lands acreage itself, must be minimized. Proposers must provide detailed company financial information proving financial capacity, and any successful project will be required to carry reasonably appropriate insurance and be bonded, where applicable. Environmental impact and safety-related plans should be detailed

- 8) University Lands does not intend to require operators to contract with any proposer/project. All proposers/projects are required to secure their own customers and provide a plan detailing a forward path for securing and maintaining the success of the project

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### **Additional Helpful Information**

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University Lands will not provide any direct capital funding for projects. However, where it makes sense and is demonstrated as financially beneficial to University Lands and the project's success, University Lands may consider projects that incorporate low-risk cost recovery financial arrangements or other in-kind contributions.

Projects that incorporate land adjacent to PUF Lands, in addition to PUF Lands, will be considered and are encouraged.

Projects that encourage use of brackish or produced water in lieu of fresh groundwater are strongly encouraged.

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### **Evaluation Criteria**

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In addition to helping University Lands achieve the **three primary goals** outlined in the **Background & Resources** section of this Invitation, and to meeting all of the Requirements outlined in the **Proposal/Project Requirement** Section, the four areas below will serve as the primary criteria on which each project will be assessed.

Each area should be addressed in detail to the extent applicable in each proposal, and criteria should not be limited to the examples provided below:

1. **Financial Criteria:** to include, but not be limited to proposed property lease terms, project financing arrangements, and project ownership/operation scenarios
2. **Technical Criteria:** to include, but not be limited to, proposed site location and suitability, proposed technology, environmental performance and quality, project specifications; expectations of employment opportunities from project
3. **Prior Performance Criteria:** to include, but not be limited to, Proposer's history of projects of similar size and characteristics, detailed information on Proposer's financial health and history, and Proposer's principal employees' qualifications and experience
4. **Best Overall Value:** proposals will be considered in a holistic manner; while revenue to University Lands will be a key deciding factor, revenue at the expense of other goals of the Invitation or other perceived unintended negative consequences, including but not limited to: costs to operators, impact on UL's reputation and relationships with industry, financial or other risk, environmental impact, etc., will factor into the selection process.

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**Proposals Submission Timeline**

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Issuance of Invitation	February 5, 2018
Pre-Proposal Conference Call	February 28, 2018, 2:00 PM CST Call-in Number: 1-866-244-8528 Participation Passcode: 496961#
Deadline for Questions/Concerns	March 5, 2018
UL Responses to Questions	March 9, 2018
Proposals Due	March 19, 2018, 12:00 PM CST



# UNIVERSITY LANDS

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## Upstream Oil & Gas Water Infrastructure Development

