

**Alcoa USA Corp.**

# **Transport Permit Application**

**Simsboro Formation – 25,000 AF/YR**

**In Conjunction with  
POSGCD Drilling and Operating  
Permit No. 0148  
Amendment Application**

**May 2021**





**Alcoa USA Corp.**  
**Energy Division**  
**3990 John D. Harper Road**  
**PO Box 1491**  
**Rockdale, TX 76567-1491 USA**

May 17, 2021

Mr. Gary Westbrook, General Manager, and  
Members of the Board of Directors  
Post Oak Savannah Groundwater Conservation District  
P. O. Box 92  
Milano, Texas 76556

RE: Alcoa USA Corp.  
Application to Amend Alcoa's Existing 25,000 af/yr Simsboro Drilling and Operating  
Permit No. 0148; and associated Application for Transport Permit

Dear Mr. Westbrook and Members of the Board:

Alcoa USA Corp. (Alcoa) is submitting today the two applications referenced above. Each of the two applications is being submitted with a cover letter addressed to the General Manager that identifies that application and the attachments to it, and that transmits the check for fees that accompanies the application.

This letter is intended to provide the General Manager and the Board an overall picture of the two applications and the April 26, 2021 Letter of Intent between Alcoa and EPCOR USA Inc. (EPCOR). Copies of this letter and the Letter of Intent are included under Section 1 of each of the two applications.

The first application is an Application to Amend Alcoa's existing 25,000 af/yr Simsboro Drilling and Operating Permit No. 0148 to authorize use of the water for municipal use in addition to industrial use, and to authorize use of the water anywhere within Milam County (which is within the District), and anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell (each of which is outside the District). The 56 wells that will produce the water are the same 56 wells that are currently authorized under the operating permit. No increase in either the authorized aggregate annual production or the rate of production from any well is requested.

The second application is an Application for a Transport Permit authorizing transport of up to 25,000 af/yr of the water produced under the amended operating permit out of the District for use in Williamson County and the three other out-of-District counties.

Alcoa owns nearly 32,000 acres of land and groundwater rights in Milam and Lee Counties known as Sandow Lakes Ranch. Alcoa currently is marketing the property to prospective buyers and, at the same time, entering into long-term leases and water supply contracts with new tenants on the property. Alcoa's objectives include significant long-term economic development within Sandow Lakes Ranch and nearby areas in the two counties. However, Alcoa believes it is also

Mr. Gary Westbrook and Members of the Board of Directors  
Post Oak Savannah Groundwater Conservation District  
Alcoa USA Corp. - Application to Amend Alcoa's Existing 25,000 af/yr Simsboro Drilling and  
Operating Permit No. 0148; and associated Application for Transport Permit  
May 17, 2021  
Page 2 of 2

important that it promote, facilitate and assist in the economic development of the fast growing region between Alcoa's property and the I-35 corridor, because the economic health of that region is critical to the economic development of Milam and Lee Counties. The amended Drilling and Operating Permit No. 0148 and the associated Transport Permit are needed for the desired economic development.

In furtherance of its objectives, Alcoa has entered into the Letter of Intent with EPCOR regarding the supply of this 25,000 AFY of water for use in Milam County, Williamson County, and the adjacent counties of Lee, Travis and Bell.

The project currently envisioned by EPCOR and Alcoa involves phased infrastructure development that will ultimately deliver up to 44,800 acre-feet of groundwater per year. Phase 1 would include an initial 11,200 af/yr of groundwater from EPCOR's existing 130 Project delivered via a pipeline extension from the 130 Project. Phase 2 would include an additional supply of up to 33,600 af/yr of Sandow Lakes Ranch groundwater delivered by a new adjacent pipeline project. Groundwater in addition to the 25,000 af/yr of Simsboro groundwater authorized under Alcoa's amended Operating Permit No. 0148 could come from the Hooper. Interconnections between the 130 Project and the new pipeline would provide significant flexibility and redundancy in water supply to the users.

Please call me at (512) 430-0669 if you have any questions or need any additional information.

Respectfully,



Tommy E. Hodges, P.E.  
Authorized Representative,  
Alcoa USA Corp.

**Letter of Intent  
Regarding Groundwater from Alcoa's Sandow Lakes Ranch  
by and between  
Alcoa USA Corp. and  
EPCOR USA Inc.**

This Letter of Intent (LOI) regarding Groundwater from Alcoa's Sandow Lakes Ranch is entered into as of the 26th day of April 2021, by and between Alcoa USA Corp. (Alcoa) and EPCOR USA Inc. (EPCOR).

**Background**

Alcoa owns over 30,000 acres of land and groundwater rights in Milam and Lee Counties, Texas known as Sandow Lakes Ranch, of which nearly 25,000 acres are in Milam County.

EPCOR is a utility company that builds, owns and operates water and wastewater treatment facilities, water transmission pipelines, and natural gas distribution systems. Today, EPCOR is the largest private water provider in the Southwestern United States, owning and operating more than 249 groundwater production wells, 71 water treatment plants, 63 pump stations, 2,860 miles of water distribution pipeline, and 292 miles of natural gas distribution pipeline. In all, EPCOR delivers reliable water and wastewater service to a population of more than 780,000.

In Texas, EPCOR has ownership interest in and operational responsibility for two water supply projects: the Vista Ridge Project and the 130 Project. See Figure 1, below:

Figure 1: EPCOR's Vista Ridge Project and its 130 Project



EPCOR and Alcoa have agreed to work together to make water from Sandow Lakes Ranch available to users in Williamson and adjacent counties in conjunction with EPCOR's 130 Project. Consistent with the understanding between EPCOR and Alcoa, EPCOR by this LOI confirms its immediate

need to secure from Alcoa the supply of 25,000 acre-feet per year (AFY) or more of Sandow Lakes Ranch groundwater. The project currently envisioned by EPCOR and Alcoa involves phased infrastructure development that will ultimately deliver up to 44,800 AFY. Phase 1 would include an initial 11,200 AFY of groundwater from the 130 Project delivered via a pipeline extension from the 130 Project. Phase 2 would include an additional supply of up to 33,600 AFY from Sandow Lakes Ranch groundwater delivered by a new pipeline project. Interconnections between the 130 Project and proposed new pipeline would provide significant flexibility and redundancy in water supplied to the users.

Alcoa's objectives include significant long-term economic development of Alcoa's Sandow Lakes Ranch and nearby areas in Milam and Lee Counties. However, Alcoa believes it is also important that it promote, facilitate and assist in the economic development of the fast growing I-35 and Highway 130 corridors and areas between them and Sandow Lakes Ranch, because the economic health of that region is critical to the economic development of Milam and Lee Counties.

Among its other currently permitted groundwater production rights at its Sandow Lake Ranch, Alcoa holds Operating Permit No. 0148 issued by the Post Oak Savannah Groundwater Conservation District (the "District") authorizing the production of 25,000 AFY of groundwater annually from Alcoa's lands in Milam County and the use of that water for industrial purposes at Alcoa's Milam County property. Alcoa is in the process of seeking from the District amendments to that Operating Permit, as well as a Transport Permit, to authorize use of the water for municipal use in addition to industrial use, use of the water anywhere within Milam County, which is within the District, and transport of the water out of District and use of the water anywhere within Williamson and the adjacent Counties of Lee, Williamson, Travis and Bell. Based on the acreage of groundwater rights that it owns, Alcoa also has additional rights for future additional groundwater production permits at its Sandow Lakes Ranch.

### **Water Needs of Municipalities and Other Water Suppliers in the Region**

In September 2019, the City of Round Rock, Texas issued a Request for Information ("RFI") to identify potential water suppliers and determine basic costs for potential projects. In the RFI, the City asked potential suppliers how the following two alternative firm annual supply volumes and delivery capacities can be provided:

- i. 11,200 AFY (10 million gallons per day (mgd), with a delivery capacity of 10 mgd (no peaking capacity); and
- ii. 16,800 AFY (15 mgd) with a delivery capacity of 30 mgd.

As reflected in the recently submitted final 2021 Brazos G Regional Water Plan, the City of Round Rock is projected to begin experiencing water supply shortages in the near future, and the 16,800 acft/yr specified in item ii, above, is the City's currently projected 2070 water supply shortage. Based on the initial responses to the RFI, the City is now also considering larger supply volumes with one or more regional partners, having executed a Memorandum of Understanding (MOU) to this effect with the City of Georgetown and the Brazos River Authority. In December 2020, the MOU participants followed up with additional RFI questions, the first of which asked for a description of the potential for each proposed groundwater supply project to provide additional supply volumes beyond those specified in the RFI.

Given the rate of sustained regional population growth in Central Texas, it is prudent for municipalities to secure needed additional water supplies quickly, and to consider securing larger volumes to provide margins of error in the events that shortages will begin to occur even earlier than currently forecasted and future growth in demand will exceed current projections, and to provide for diversification of supply by incorporating drought-proof groundwater conjunctively with surface water supplies. Such larger regional projects will benefit from economies of scale in common production and delivery

infrastructure, and the economy of the entire region would benefit because of the greater long-term security of the region that would result from more water providers having firm water supplies in volumes that will be adequate to avoid shortages for many years into the future. Based on the 2021 Region G Regional Water Plan, the total projected 2070 water supply shortage in Williamson County alone exceeds 25,000 AFY.

**Alcoa's and EPCOR's Intent**

For the reasons summarized above, Alcoa and EPCOR intend to initiate formal negotiations for an agreement for the reservation and supply of Alcoa's Sandow Lakes Ranch groundwater immediately upon the District acting on Alcoa's applications for the amendment of Operating Permit No. 0148 and the associated Transport Permit. This expression of intent and this LOI are non-binding on both parties in all respects, and either one of the parties may terminate this LOI at any time by giving written notice of termination to the other.

**Alcoa USA Corp.**

By  \_\_\_\_\_

**EPCOR USA Inc.**

By  \_\_\_\_\_



Alcoa USA Corp.  
Energy Division  
3990 John D. Harper Road  
PO Box 1491  
Rockdale, TX 76567-1491 USA

May 17, 2021

Mr. Gary Westbrook, General Manager  
Post Oak Savannah Groundwater Conservation District  
310 East Avenue C  
Milano, Texas 76556

RE: Alcoa USA Corp. – Application for Transport Permit

Dear Mr. Westbrook:

Submitted herewith are 3 copies of the Application of Alcoa USA Corp. (Alcoa) for a Transport Permit to authorize the transport of up to 25,000 af/yr of Simsboro groundwater out of the District. This Application for a Transport Permit is submitted in conjunction with Alcoa's separate application to amend its existing 25,000 af/yr Simsboro Drilling and Operating Permit No. 0148 to authorize municipal use in addition to industrial use, and to authorize use of water anywhere within Milam County (which is in the District) and anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell (each of which is outside of the District). The Transport Permit Application is being submitted for the transport of the water for use in the four out of District counties.

Each copy of the application is compiled in a single notebook consisting of four sections, corresponding to tabs in the notebook. As described in the table below, Section 1 consists of the completed application form and certain attachments to the application form, and the remaining sections consist of additional attachments to the application form.

As indicated in the table below, the first attachment to the completed application form is a copy of a letter from Tommy Hodges to you and the Members of the Board summarizing both applications and the April 26, 2021 Letter of Intent between Alcoa and EPCOR USA Inc.

Section	Descriptions of Materials in each Section
1	The completed transport permit application form and the following attachments to the completed application form: <ul style="list-style-type: none"><li>Letter from Tommy Hodges to Gary Westbrook and the Board of Directors discussing this Transport Permit Application, the associated application to amend Alcoa's Drilling and Operating Permit No. 0148, and the April 26, 2021 Letter of Intent between Alcoa and EPCOR USA Inc.</li><li>April 26, 2021 Letter of Intent between Alcoa and EPCOR USA Inc.</li><li>Summary of Transport Permit Application and Responses to POSGCD Rule 8.2</li></ul>
2	<ul style="list-style-type: none"><li>Well Information</li></ul>
3	<ul style="list-style-type: none"><li>Water Conservation Plan and Drought Contingency Plan</li></ul>
4	<ul style="list-style-type: none"><li>Responses to Rules 8.2.2.d and 8.2.2.i and Additional Responses to Other Provisions</li></ul>

Mr. Gary Westbrook  
Alcoa USA Corp. – Application for Transport Permit  
Page 2 of 2  
May 17, 2021

Also enclosed is a check in the amount of \$5,600 for the District's processing of the application.  
Finally, also enclosed is a flash drive containing a digital copy of the application and the groundwater models associated with the Aquifer Impact Study.

Please call Tommy Hodges at (512) 430-0669 if you have any questions or need any additional information.

Respectfully,



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Robyn L. Gross  
Director Asset Management Americas  
Alcoa USA Corp.

Enclosures



# Application Information



**POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICT**

**P. O. Box 92  
Milano, Tx. 76556  
512/455-9900**

**TRANSPORT PERMIT APPLICATION**

Application Date May 17, 2021

**SECTION I – APPLICANT**

Alcoa USA Corp. (512) 430-0669  
NAME (First, Middle Initial, Last) Phone Number

Principal Contact Person: Tommy Hodges (512) 430-0669  
Phone Number

Physical Address of Principal Office: 3990 John D. Harper Road

City Rockdale State Texas Zip 76567

Mailing Address: P.O. Box 1491

City Rockdale State Texas Zip 76567

**SECTION II – NATURE AND PURPOSE FOR GROUNDWATER USAGE**

**\*\*Include any Conjunctive uses**

**See Summary of Application and Response to  
Rule 8.2.2 in Section 1 – Application Information**

State the proposed nature and purpose and list proposed usage of groundwater produced from wells and the amount of usage

Nature and purpose: Public Water Supply

Use Municipal Amount Used (gal./day) \_\_\_\_\_

Nature and purpose: Industrial (including Manufacturing and Commercial)

Use Industrial Amount Used (gal./day) \_\_\_\_\_

Total Amount to be Used (gal./day) 22,318,593 avg.

Location of Water Usage within Milam (In District), and anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell (each of which is outside the District).

Total Proposed Rate at Which Water Will Be Transported: avg. 15,500, max. 25,000 gallons/min

Total Proposed Amount of Water to Be Transported Annually: maximum of 25,000 acre feet

**POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICT**

**P. O. Box 92  
Milano, Tx. 76556  
512/455-9900**

**SECTION III – WELL INFORMATION**

Please provide information for each well which will be used to provide groundwater for this permit:

**\*\*If more entries are needed please attach an amendment sheet to this form**

**(SEE Table 2-1 in Section 2 – Well Information)**

**POSGCD Well Number:** \_\_\_\_\_

**Landowner Name** \_\_\_\_\_

**Mailing Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Location of well: Latitude** \_\_\_\_\_ **Longitude** \_\_\_\_\_

**Description of physical location** \_\_\_\_\_

**Date Drilled:** \_\_\_\_\_ **Driller's Name & Lic. #:** \_\_\_\_\_

**Well Depth:** \_\_\_\_\_ **feet**   **Pump Set at:** \_\_\_\_\_ **feet**   **Depth to Water:** \_\_\_\_\_ **feet**

**Pump Size:** \_\_\_\_\_ **horse power**   **Well Capacity:** \_\_\_\_\_ **gallons per minute**

**Proposed rate of pumpage (gal./min.)** \_\_\_\_\_

**Type of Use of Water:** \_\_\_\_\_ **gallons per day:** \_\_\_\_\_

**Type of Use of Water:** \_\_\_\_\_ **gallons per day:** \_\_\_\_\_

**Total Use in gallons per day:** \_\_\_\_\_

**Aquifer Water is Drawn From:** \_\_\_\_\_

**Request for Well to be Aggregate with other wells? Yes** \_\_\_ **No** \_\_\_ **If yes, list wells:**

\_\_\_\_\_

\_\_\_\_\_

**What additional information about this well was attached to this application?** \_\_\_\_\_

**POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICT**

**P. O. Box 92  
Milano, Tx. 76556  
512/455-9900**

**SECTION IV – PLANS**

Indicate the anticipated time within which any proposed construction or alteration of the transport facilities is to begin: From \_\_\_\_\_ 1 \_\_\_\_\_ to \_\_\_\_\_ 4 years \_\_\_\_\_

State the presently anticipated duration for the proposed transport of groundwater:

From \_\_\_\_\_ permit issuance \_\_\_\_\_ to \_\_\_\_\_ 40 years after issuance \_\_\_\_\_

Indicate if Following items (Rule 8.2.2.h) are attached:

(All answers must be “Yes” before this application can be considered complete)

1. Groundwater Conservation Plan Yes \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

2. Groundwater Conservation Goals Yes \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

3. Alternative Supply Plan Yes \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

4. Description of proposed transport facilities Yes \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

5. Groundwater Delivery Amendment Yes \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

(If the water is to be resold to others, provide a description of the applicant's service area, metering, leak detection and repair program for its water storage, delivery and distribution system, drought or emergency water management plan, and information on each subsequent customer's water demands, including population and customer data, water use data, water supply system data, alternative water supply, water conservation measures and goals, conjunctive use, and the means for implementation and enforcement of all applicable rules, plans, and goals.)

6. Additional Information to Aid the Board \_\_\_\_\_

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POST OAK SAVANNAH GROUNDWATER CONSERVATION DISTRICT  
P. O. Box 92  
Milano, Tx. 76556  
512/455-9900

SECTION V – ATTACHMENTS (please list all items attached to this permit)

See attached Section 1 - Application Information including Summary of Application  
and Response to Rule 8.2, Section 2 - Well Information, Section 3 - Water  
Conservation Plan and Drought Contingency Plan, and Section 4 – Responses to  
Post Oak Savannah Rules 8.2.2.d and 8.2.2.i and Additional Responses to Other  
Provisions

SECTION VI – AFFIRMATION AND EXECUTION

I certify that all statements and information in this application are true and correct. I also declare that all groundwater withdrawn will be put to beneficial use at all times, and that I will abide by the Management Plan and Rules of the Post Oak Savannah Groundwater Conservation District .

Pennsylvania  
THE STATE OF ~~TEXAS~~  
COUNTY OF Allegheny  
Robyn Gross  
Signature of Applicant

This instrument was acknowledged before me on (date) May 13, 2021

By (applicant) Alcoa USA Corp, by Robyn Gross, Director

Commonwealth of Pennsylvania - Notary Seal  
Julie Perez, Notary Public  
Allegheny County  
My commission expires March 18, 2023  
(Commission number 1197517)  
Member, Pennsylvania Association of Notaries

Julie Perez  
Notary Signature

Can be notarized in the presence of any Notary of your choice. We have a Notary at the POSGCD Office.

**Letter of Intent  
Regarding Groundwater from Alcoa's Sandow Lakes Ranch  
by and between  
Alcoa USA Corp. and  
EPCOR USA Inc.**

This Letter of Intent (LOI) regarding Groundwater from Alcoa's Sandow Lakes Ranch is entered into as of the 26th day of April 2021, by and between Alcoa USA Corp. (Alcoa) and EPCOR USA Inc. (EPCOR).

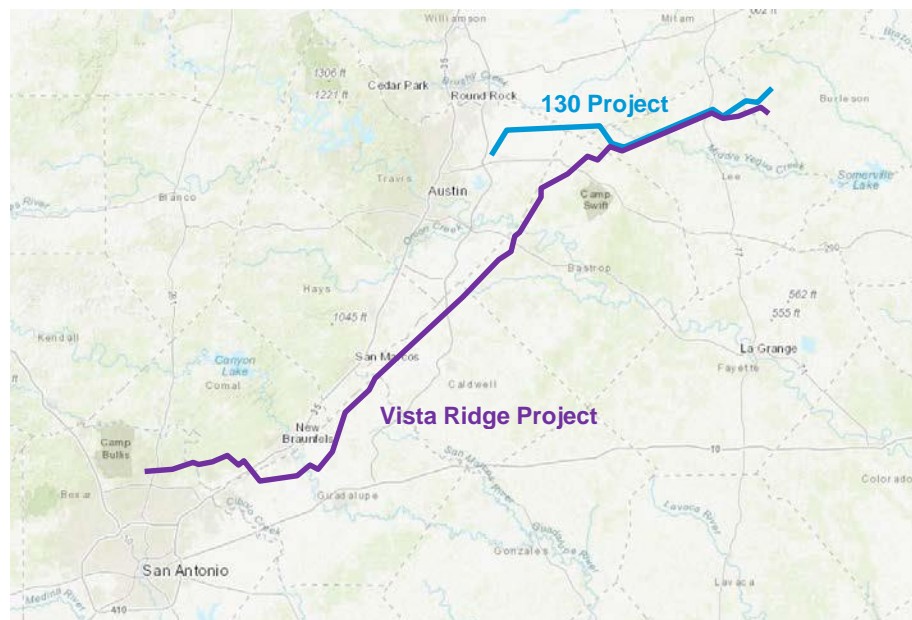
**Background**

Alcoa owns over 30,000 acres of land and groundwater rights in Milam and Lee Counties, Texas known as Sandow Lakes Ranch, of which nearly 25,000 acres are in Milam County.

EPCOR is a utility company that builds, owns and operates water and wastewater treatment facilities, water transmission pipelines, and natural gas distribution systems. Today, EPCOR is the largest private water provider in the Southwestern United States, owning and operating more than 249 groundwater production wells, 71 water treatment plants, 63 pump stations, 2,860 miles of water distribution pipeline, and 292 miles of natural gas distribution pipeline. In all, EPCOR delivers reliable water and wastewater service to a population of more than 780,000.

In Texas, EPCOR has ownership interest in and operational responsibility for two water supply projects: the Vista Ridge Project and the 130 Project. See Figure 1, below:

Figure 1: EPCOR's Vista Ridge Project and its 130 Project



EPCOR and Alcoa have agreed to work together to make water from Sandow Lakes Ranch available to users in Williamson and adjacent counties in conjunction with EPCOR's 130 Project. Consistent with the understanding between EPCOR and Alcoa, EPCOR by this LOI confirms its immediate

need to secure from Alcoa the supply of 25,000 acre-feet per year (AFY) or more of Sandow Lakes Ranch groundwater. The project currently envisioned by EPCOR and Alcoa involves phased infrastructure development that will ultimately deliver up to 44,800 AFY. Phase 1 would include an initial 11,200 AFY of groundwater from the 130 Project delivered via a pipeline extension from the 130 Project. Phase 2 would include an additional supply of up to 33,600 AFY from Sandow Lakes Ranch groundwater delivered by a new pipeline project. Interconnections between the 130 Project and proposed new pipeline would provide significant flexibility and redundancy in water supplied to the users.

Alcoa's objectives include significant long-term economic development of Alcoa's Sandow Lakes Ranch and nearby areas in Milam and Lee Counties. However, Alcoa believes it is also important that it promote, facilitate and assist in the economic development of the fast growing I-35 and Highway 130 corridors and areas between them and Sandow Lakes Ranch, because the economic health of that region is critical to the economic development of Milam and Lee Counties.

Among its other currently permitted groundwater production rights at its Sandow Lake Ranch, Alcoa holds Operating Permit No. 0148 issued by the Post Oak Savannah Groundwater Conservation District (the "District") authorizing the production of 25,000 AFY of groundwater annually from Alcoa's lands in Milam County and the use of that water for industrial purposes at Alcoa's Milam County property. Alcoa is in the process of seeking from the District amendments to that Operating Permit, as well as a Transport Permit, to authorize use of the water for municipal use in addition to industrial use, use of the water anywhere within Milam County, which is within the District, and transport of the water out of District and use of the water anywhere within Williamson and the adjacent Counties of Lee, Williamson, Travis and Bell. Based on the acreage of groundwater rights that it owns, Alcoa also has additional rights for future additional groundwater production permits at its Sandow Lakes Ranch.

### **Water Needs of Municipalities and Other Water Suppliers in the Region**

In September 2019, the City of Round Rock, Texas issued a Request for Information ("RFI") to identify potential water suppliers and determine basic costs for potential projects. In the RFI, the City asked potential suppliers how the following two alternative firm annual supply volumes and delivery capacities can be provided:

- i. 11,200 AFY (10 million gallons per day (mgd), with a delivery capacity of 10 mgd (no peaking capacity); and
- ii. 16,800 AFY (15 mgd) with a delivery capacity of 30 mgd.

As reflected in the recently submitted final 2021 Brazos G Regional Water Plan, the City of Round Rock is projected to begin experiencing water supply shortages in the near future, and the 16,800 acft/yr specified in item ii, above, is the City's currently projected 2070 water supply shortage. Based on the initial responses to the RFI, the City is now also considering larger supply volumes with one or more regional partners, having executed a Memorandum of Understanding (MOU) to this effect with the City of Georgetown and the Brazos River Authority. In December 2020, the MOU participants followed up with additional RFI questions, the first of which asked for a description of the potential for each proposed groundwater supply project to provide additional supply volumes beyond those specified in the RFI.

Given the rate of sustained regional population growth in Central Texas, it is prudent for municipalities to secure needed additional water supplies quickly, and to consider securing larger volumes to provide margins of error in the events that shortages will begin to occur even earlier than currently forecasted and future growth in demand will exceed current projections, and to provide for diversification of supply by incorporating drought-proof groundwater conjunctively with surface water supplies. Such larger regional projects will benefit from economies of scale in common production and delivery

infrastructure, and the economy of the entire region would benefit because of the greater long-term security of the region that would result from more water providers having firm water supplies in volumes that will be adequate to avoid shortages for many years into the future. Based on the 2021 Region G Regional Water Plan, the total projected 2070 water supply shortage in Williamson County alone exceeds 25,000 AFY.

**Alcoa's and EPCOR's Intent**

For the reasons summarized above, Alcoa and EPCOR intend to initiate formal negotiations for an agreement for the reservation and supply of Alcoa's Sandow Lakes Ranch groundwater immediately upon the District acting on Alcoa's applications for the amendment of Operating Permit No. 0148 and the associated Transport Permit. This expression of intent and this LOI are non-binding on both parties in all respects, and either one of the parties may terminate this LOI at any time by giving written notice of termination to the other.

**Alcoa USA Corp.**

By  \_\_\_\_\_

**EPCOR USA Inc.**

By  \_\_\_\_\_



# **Summary of Transport Permit Application and Responses to Post Oak Savannah Rule 8.2**

**Alcoa USA Corp.**

## **Application for Transport Permit to Authorize Transport of up to 25,000 af/yr of Simsboro Formation Groundwater for use outside of the District in Williamson County and the adjacent Counties of Lee, Travis and Bell**

(in conjunction with the amendment application for Alcoa's POSGCD Drilling and  
Operating Permit No. 0148)

### **SUMMARY OF TRANSPORT PERMIT APPLICATION:**

Alcoa USA Corp. (Alcoa) seeks a transport permit to authorize transport of up to 25,000 af/yr of groundwater produced from the Simsboro Formation for use for municipal and industrial uses anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell. The water would be produced under Alcoa's existing POSGCD Drilling and Operating Permit No. 0148 (Operating Permit No. 0148), which currently authorizes the production of the 25,000 af/yr for industrial use anywhere within the almost 25,000 acres of land owned by Alcoa in Milam County. There are currently 56 well locations authorized for production under the operating permit, all located on Alcoa's Milam County property. By separate application to amend its operating permit, Alcoa seeks to authorize municipal use in addition to industrial use, and to authorize use of water anywhere within Milam County, which is in the District, as well as anywhere within the four counties outside the District for which the transport permit is being sought: Williamson County and the adjacent Counties of Lee, Travis and Bell. Alcoa is requesting that the term of the transport permit be 40 years from the date of issuance of the permit, to coincide with the requested term of the amended operating permit.

Alcoa owns nearly 32,000 acres of land and groundwater rights in Milam and Lee Counties known as Sandow Lakes Ranch. Alcoa currently is marketing the property to prospective buyers and, at the same time, entering into long-term leases and water supply contracts with new tenants on the property. Alcoa's objectives include significant long-term economic development within the property and nearby areas in the two counties. However, Alcoa believes it is also important for it to promote, facilitate and assist in the economic development of the fast growing region between Alcoa's property and the I-35 corridor, because the economic health of that region is critical to the economic development of Milam and Lee Counties. The amended operating permit and the associated transport permit are needed for the desired economic development.

In furtherance of its objectives, Alcoa has entered into a Letter of Intent dated as of April 26, 2021 with EPCOR USA Inc. (EPCOR) regarding the supply of this 25,000 AFY of water for use in Milam County, Williamson County, and the adjacent counties of Lee, Travis and Bell. The project

currently envisioned by EPCOR and Alcoa involves phased infrastructure development that will ultimately deliver up to 44,800 AFY. Phase 1 would include an initial 11,200 AFY of groundwater from EPCOR's existing 130 Project delivered via a pipeline extension from the 130 Project. Phase 2 would include an additional supply of up to 33,600 AFY from Sandow Lakes Ranch groundwater delivered by a new pipeline project. Interconnections between the 130 Project and proposed new pipeline would provide significant flexibility and redundancy in water supply to the users. A copy of the Letter of Intent is included under Section 1 of this Application.

## **RESPONSES TO RULE 8.2. APPLICATION FOR TRANSPORT PERMIT.**

1. A transport permit application must be filed with the District on a form prescribed by the District.
2. An application for a transport permit must:
  - a. be in writing and sworn to;  
**The POSGCD application form included in Section 1 includes a sworn statement, and the application is in writing.**
  - b. contain the name, post-office address, and place of residence or principal office of the applicant and the owner of the land on which the well is or will be located;  
**Alcoa USA Corp.  
PO BOX 1491  
Rockdale, Texas 76567**
  - c. identify the actual or anticipated location, pump size, and production capacity of the well from which the groundwater to be transported is produced or is proposed to be produced;  
**See Table 2-1 in Section 2 for a tabular listing of individual well locations, unique property descriptions, and maximum pumping rate for each proposed well. These wells are currently approved under Alcoa's existing Operating Permit No. POS - D & O 0148. See Figure 2-1 for a map of the location of each proposed well.**
  - d. describe the proposed transport facilities;  
**See Section 4 for this response.**
  - e. state the nature and purposes of the proposed use and the anticipated amount of groundwater to be used for each purpose, including any proposed conjunctive use;  
**The use of the produced water is industrial and municipal use depending on end user requirements. The maximum amount of water to be transported is 25,000 acre-feet per year. Any**

**conjunctive use of surface water will be dependent on the end user. Multiple end users in Williamson County and in the adjacent Counties of Lee, Travis and Bell may have the ability to conjunctively use surface and groundwater.**

- f. state the anticipated time within which any proposed construction or alteration of the transport facilities is to begin;

**The anticipated time before commencement of construction of additional transportation facilities is within 2 to 4 years after issuance of the requested amendment to Operating Permit No. 0148 and the associated transport permit.**

- g. state the presently anticipated duration for the proposed transport of groundwater;

**The requested term of the transport permit is 40 years.**

- h. provide information showing what water conservation measures the applicant has adopted, what water conservation goals the applicant has established, and what measures and time frames are necessary to achieve the applicant's established water conservation goals; and

**See Section 3 for this response.**

- i. if the water is to be resold to others, provide a description of the applicant's service area, metering, leak detection and repair program for its water storage, delivery and distribution system, drought or emergency water management plan, and information on each subsequent customer's water demands, including population and customer data, water use data, water supply system data, alternative water supply, water conservation measures and goals, conjunctive use, and the means for implementation and enforcement of all applicable rules, plans, and goals.

**See Section 4 for this response.**

3. The general manager shall determine whether the application complies with the requirements of this rule and may require amendment of the application to achieve necessary compliance.
4. An application must be accompanied by the required application fee established by the Board.

**A check for the application fee of \$5,600 accompanies this application.**

# Well Information



**Table 2-1. Summary of Approved Operating Permit Wells**

**Approved Operating Permit Wells (to be constructed)**

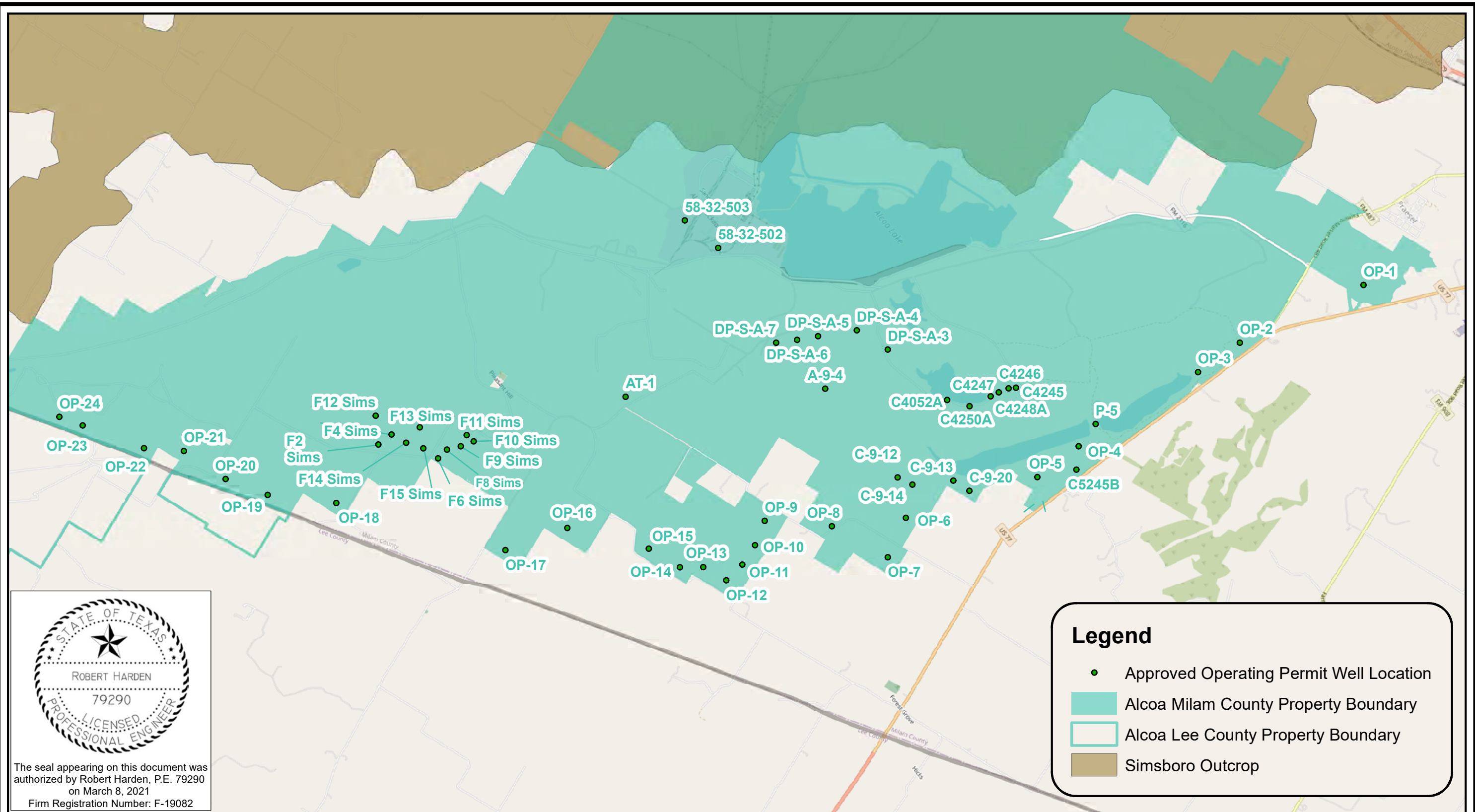
Well Name	Well Latitude	Well Longitude	Approved Maximum Withdrawal Rate	Well Location – Milam County Appraisal District Property ID
OP-1	30.622982°N	97.002032°W	1,000 gpm	10354
OP-2	30.605196°N	97.008376°W	1,000 gpm	10354
OP-3	30.594472°N	97.008773°W	1,000 gpm	10354
OP-4	30.581454°N	97.011233°W	1,000 gpm	10354
OP-5	30.575031°N	97.011456°W	1,000 gpm	20519037
OP-6	30.559055°N	97.018725°W	1,000 gpm	20519037
OP-7	30.554234°N	97.01588°W	1,000 gpm	20519037
OP-8	30.551181°N	97.024434°W	1,000 gpm	20519037
OP-9	30.545059°N	97.031084°W	1,000 gpm	20519037
OP-10	30.542223°N	97.029208°W	1,000 gpm	20519037
OP-11	30.539487°N	97.028175°W	1,000 gpm	20519037
OP-12	30.536704°N	97.02784°W	1,000 gpm	20519037
OP-13	30.535473°N	97.031413°W	1,000 gpm	20519037
OP-14	30.533189°N	97.033489°W	1,000 gpm	20519037
OP-15	30.531594°N	97.038386°W	1,000 gpm	20519037
OP-16	30.525266°N	97.048067°W	1,000 gpm	20519037
OP-17	30.517497°N	97.05115°W	1,000 gpm	20519037
OP-18	30.504651°N	97.0717°W	1,000 gpm	20519037
OP-19	30.49858°N	97.078782°W	1,000 gpm	20519037
OP-20	30.495715°N	97.084374°W	1,000 gpm	20519037
OP-21	30.493818°N	97.091286°W	1,000 gpm	11598
OP-22	30.490153°N	97.095187°W	1,000 gpm	11598
OP-23	30.48594°N	97.103281°W	1,000 gpm	11598
OP-24	30.484308°N	97.106346°W	1,000 gpm	11598

Note: All Wells are located on tracts owned fully by Alcoa. See Table 2-1 for more information.

**Table 2-1. Summary of Approved Operating Permit Wells (con't)****Historic Use Wells Approved For Dual Use With Operating Permit**

Well Name	Well Latitude	Well Longitude	Approved Maximum Withdrawal Rate	Well Location – Milam County Appraisal District Property ID
DP-S-A-3	30.57033°N	97.03935°W	250 gpm	20519037
DP-S-A-4	30.56881°N	97.04432°W	250 gpm	20519037
DP-S-A-5	30.56458°N	97.04714°W	250 gpm	10354
DP-S-A-6	30.56225°N	97.04861°W	250 gpm	10354
DP-S-A-7	30.55998°N	97.05018°W	250 gpm	10354
A-9-4	30.56120°N	97.04058°W	1,000 gpm	20519037
AT-1	30.54111°N	97.05764°W	500 gpm	20520844
C4248A	30.57674°N	97.02479°W	230 gpm	20519037
C4247	30.57784°N	97.02452°W	240 gpm	20519037
C4246	30.57911°N	97.02407°W	250 gpm	20519037
C4245	30.57988°N	97.02349°W	240 gpm	20519037
C4250A	30.57393°N	97.02559°W	290 gpm	20519037
C4052A	30.57223°N	97.02831°W	300 gpm	20519037
C5245B	30.57941°N	97.00878°W	410 gpm	10354
C-9-12	30.56138°N	97.02401°W	440 gpm	20519037
C-9-13	30.56657°N	97.01864°W	320 gpm	20519037
C-9-14	30.56227°N	97.02189°W	420 gpm	20519037
C-9-20	30.56734°N	97.01604°W	450 gpm	20519037
F2 Sims	30.51536°N	97.07445°W	250 gpm	20519037
F4 Sims	30.51329°N	97.07452°W	250 gpm	20519037
F6 Sims	30.51804°N	97.06758°W	250 gpm	20519037
F8 Sims	30.51959°N	97.06777°W	250 gpm	20519037
F9 Sims	30.52120°N	97.06688°W	250 gpm	20519037
F10 Sims	30.52283°N	97.06630°W	250 gpm	20519037
F11 Sims	30.52264°N	97.06762°W	250 gpm	20519037
F12 Sims	30.51527°N	97.07801°W	250 gpm	20519037
F13 Sims	30.51867°N	97.07272°W	250 gpm	20519037
F14 Sims	30.51614°N	97.07222°W	250 gpm	20519037
F15 Sims	30.51738°N	97.07004°W	250 gpm	20519037
P-5	30.58484°N	97.01220°W	500 gpm	10354
58-32-502	30.33340°N	97.04030°W	500 gpm	10354
58-32-503	30.33230°N	97.04180°W	500 gpm	10354

Note: All Wells are located on tracts owned fully by Alcoa. See Table 2-1 for more information.



### Legend

- Approved Operating Permit Well Location
- Alcoa Milam County Property Boundary
- Alcoa Lee County Property Boundary
- Simsboro Outcrop



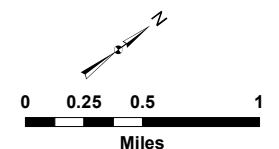
The seal appearing on this document was authorized by Robert Harden, P.E. 79290 on March 8, 2021  
Firm Registration Number: F-19082

Notes:  
1. Well locations previously approved under Operating Permit

## Approved Well Locations Operating Permit



**Figure 2-1**



# Water Conservation Drought Contingency





### **SECTION 3. - WATER CONSERVATION PLAN AND DROUGHT CONTINGENCY PLAN**

For many decades, Alcoa USA Corp. (Alcoa) and its predecessor entities have utilized and conserved groundwater resources underlying the nearly 32,000 acres of land and groundwater rights owned by Alcoa in Milam and Lee Counties, of which nearly 25,000 acres is in Milam County. Groundwater use has been primarily in conjunction with lignite mining operations in both counties and industrial operations and power generation in Milam County.

Looking forward with respect to Alcoa's Milam County lands, groundwater will be produced under amended and new permits issued by the Post Oak Savannah Groundwater Conservation District (POSGCD, or District) and used for both municipal and industrial (including manufacturing and commercial) uses where Alcoa may not be the end user of the produced groundwater. Future groundwater use may involve the sale of groundwater to a wholesale water supplier and then the resale to one or more retail water utilities or industrial users, or the direct sale to one or more retail water utilities or industrial users. In each case, the wholesale water supplier, retail water utility, or industrial user should have water conservation plans and drought contingency plans as required by Texas Administrative Code Title 30, Chapter 288.

Groundwater production should be monitored individually at each well head and at primary pump stations associated with any groundwater delivery contract. Groundwater production will be reported to POSGCD. Ultimately, produced groundwater may be delivered to retail water utilities or industries located within, or outside, the boundaries of the POSGCD. The counties that groundwater would be delivered to are Milam County inside the District, and Williamson County and the adjacent Counties of Lee, Travis and Bell outside of the District. A transport permit will be sought for the transport of any groundwater outside of the POSGCD boundaries.

After execution of a water supply contract, the applicable water conservation plans and drought contingency plans of a wholesale water provider, retail public utility or industrial user (as applicable) will be provided to the POSGCD. Per current requirements of Administrative Code Title 30, Chapter 288, these plans should have specific and quantified five-year and ten-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the delivery service area, maximum acceptable water loss, and the basis for the development of these goals. Any industrial user should have a process design to minimize or reduce water use for the industrial application. Where applicable, these plans will include details of conjunctive use of alternative supplies to optimize water savings and hopefully reduce water shortages during droughts.

Typically, the retail water utilities employ a stage-based drought contingency plan commensurate with the intensity and duration of drought conditions. Many of these drought contingency plans are triggered based on public health and safety concerns that arise when reductions in storage of surface water occur due to drought. When invoked, the stage-based restrictions can include specific water days for landscape irrigation, restrictions on filling of swimming pools, etc., and more heightened stage restrictions can include restriction on additional landscape plantings, vehicle washings, restaurant serving of water only on request and other restrictions.

A retail water utility that ultimately receives groundwater produced under Alcoa permits issued by the POSGCD should have a record management system capable of reporting water use by residential, single and multi-family, commercial, institutional, industrial, and wholesale categories. The retail water utility should utilize a water rate structure that is not promotional and does not encourage the excessive use of water. For any retail public water utility that serves a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of its water conservation plan, the utility should have a program of leak detection, repair and water loss accounting for the water transmission, delivery, and distribution system. The utility's water conservation plan should also address, as applicable or as required by the Texas Commission of Environmental Quality, conservation-oriented water rates and water rate structures, the adoption of ordinances, plumbing codes, and/or rules requiring water-conserving fixtures; the reuse or recycling of wastewater or graywater; a program and/or ordinance(s) for landscape water management; and a program for pressure control and/or reduction in the distribution system and/or customer connections.

As applicable, an industrial water user should have a description of how the water is utilized, and the estimated quantity of water consumed in the production process and therefore not available for reuse or discharge. Water metering requirements should be identified, as well as a leak detection, repair and accounting for water loss in water distribution system. If applicable, the water conservation plan should describe the application of state-of-the-art equipment and/or process modifications to improve water efficiency.

Each wholesale water provider, retail public water utility, or industrial water user should review and update its water conservation and drought contingency plans (as applicable) every five years to coincide with regional water planning. These updated plans will be submitted to POSGCD for the life of the operating permit.

Groundwater would be provided to one or more public water suppliers or industrial users who may engage in conjunctive use. Opportunities for conjunctive use appear to be favorable, as groundwater from the Carrizo-Wilcox is a drought resistant supply that likely would reduce risk of water shortages during droughts for entities that currently rely solely on surface water. Implementation of these conjunctive use opportunities will likely require coordination and cooperation of different entities – both public water suppliers and wholesale water providers. These conjunctive use opportunities are long-term investments for improving safety and reliability of public water systems and management of water resources.

Response to  
POSGCD Rule 8.2.2  
Transportation  
Permit Information



**Responses to  
Post Oak Savannah Rules 8.2.2.d and 8.2.2.i  
and  
Additional Responses to Other Provisions**

**Alcoa USA Corp.**

**Application for Transport Permit to Authorize Transport of up to 25,000  
af/yr of Simsboro Formation Groundwater for Use Outside of the District in  
Williamson County and the Adjacent Counties of Lee, Travis and Bell**

(in conjunction with amendment application for  
Alcoa's Drilling and Operating Permit No. 0148)

**RULES 8.2.2.d and 8.2.2.i. PROVIDE AS FOLLOWS:**

**RULE 8.2. APPLICATION FOR TRANSPORT PERMIT.**

\*\*\*

2. An application for a transport permit must:

\*\*\*

- (d) describe the proposed transport facilities;

\*\*\*

- (i) if the water is to be resold to others, provide a description of the applicant's service area, metering, leak detection and repair program for its water storage, delivery and distribution system, drought or emergency water management plan, and information on each subsequent customer's water demands, including population and customer data, water use data, water supply system data, alternative water supply, water conservation measures and goals, conjunctive use, and the means for implementation and enforcement of all applicable rules, plans, and goals.

**RESPONSES TO RULES 8.2.2.d and 8.2.2.i:**

Williamson County, and the adjacent Counties of Lee, Travis, and Bell, are growing areas of Central Texas. Travis and Williamson Counties are part of "Greater Austin" which recently has

led the nation in population growth for metropolitan areas with at least 1 million people. In 2019, Williamson County was the fastest growing large county in the nation in terms of GDP according to the U.S. Bureau of Economic Analysis. Besides the historical government and education economies, the area has seen an influx of high-tech firms in the fields of software development and semiconductor manufacturing. Some of these manufacturing companies are candidate customers for industrial uses.

Table 1 shows recent population figures and future projected population for Milam and Burleson (within POSGCD), and Williamson County and the three adjoining counties of Lee, Travis, and Bell (outside of District).

**Table 4-1. Recent and Projected Population**

County	2020	2030	2040	2050	2060	2070
Bell	371,956	430,647	494,582	560,252	624,686	688,107
Lee	19,131	21,511	22,877	23,375	23,709	23,889
Travis	1,273,260	1,508,642	1,732,860	1,897,769	2,033,120	2,185,909
Williamson	632,433	794,478	987,495	1,195,374	1,431,101	1,675,901
Burleson	18,539	19,496	20,838	21,735	22,442	23,022
Milam	26,234	27,793	28,896	30,300	31,501	32,629
<b>Totals</b>	<b>2,341,553</b>	<b>2,802,567</b>	<b>3,287,548</b>	<b>3,728,805</b>	<b>4,166,559</b>	<b>4,629,457</b>

Note Population estimates from 2020 to 2070 are from the 2017 Texas State Water Plan (2017).

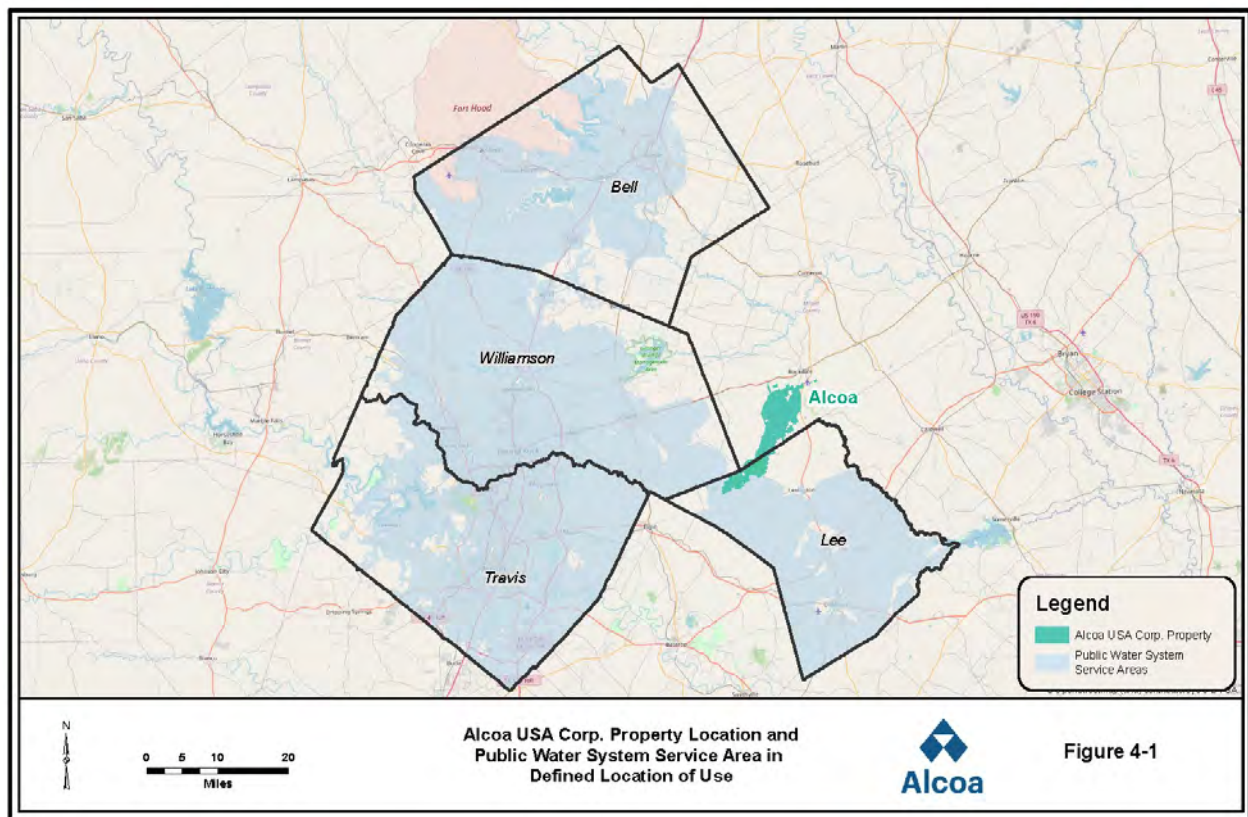
Based on these projections of population growth, combined total population in these counties is anticipated to double from today to 2070. The largest growth is projected to be in Bell, Travis, and Williamson Counties. Lee and Milam are projected to have more modest population growth.

### ***Existing Water Service Areas***

Within Williamson County and the adjacent Counties of Lee, Travis and Bell, there are over 100 public water suppliers with identified service areas. These public water supplies vary in size from small, rural water supply corporations to large municipalities. Some of the municipal water supply entities that serve users in the defined location of use include the following cities:

- AUSTIN
- BARTLETT
- BELTON
- CEDAR PARK
- ELGIN
- FLORENCE
- GEORGETOWN
- GRANGER
- HUTTO
- JARRELL
- LEANDER
- LEXINGTON
- LIBERTY HILL
- MANOR
- PFLUGERVILLE
- ROLLINGWOOD
- ROUND ROCK
- SUNSET VALLEY
- TAYLOR
- THORNDALE

Figure 4-1 shows the combined water service areas served by these entities.



## Existing Water Use

Table 2 lists the characteristics of use by counties as presented in the 2017 Texas State Water Plan. The largest category of use is municipal use in Travis and Williamson Counties. The State Water Plan data for steam electric use in Milam County may not reflect the recent closure of the Sandow Power Plant.

**Table 4-2. Existing Use Identified in 2017 Texas State Water Plan (af/yr)**

County	Irrigation	Livestock	Manufacturing	Mining	Municipal	Steam Electric	County Totals
Bell	1,048	1,009	497	-	103,738	-	106,292
Lee	496	1,935	13	-	6,269		8,713
Travis	5,131	707	35,790	3,502	357,040	21,126	423,296
Williamson	80	1,456	2,343	420	99,008		103,307
Burleson	22,962	1,508	139	-	5,747		30,356
Milam	5,398	1,822	14	14	8,712	33,119	49,079
<b>Totals by Use</b>	<b>35,115</b>	<b>8,437</b>	<b>38,796</b>	<b>3,936</b>	<b>580,514</b>	<b>54,245</b>	<b>721,043</b>

Note: Existing use is assumed to be estimated 2020 demands in 2017 Texas State Water Plan (2017).

Travis and Williamson Counties have the largest total amounts of use. In these counties, average gallons per capita day (GPCD) vary by water user group. For the larger water use entities, per capita use ranges from about 100 to 225 GPCD.

### ***Future Needs***

The high growth rates in Travis and Williamson Counties will require the construction and development of additional water supplies. Historically, the area has relied on both groundwater and surface water supplies, and this is projected to continue. Potential future needs were obtained from the 2017 Texas State Water Plan. These future needs represent demands less constructed supplies. Future needs in the defined location of transport – Williamson County and the adjacent Counties of Lee, Travis, and Bell – and the counties within the District, are presented in Table 3.

**Table 4-3. Needs (Potential Shortages) Identified in 2017 Texas State Water Plan (af/yr)**

County	2020	2030	2040	2050	2060	2070
<b>Bell</b>	10,026	14,028	20,414	28,469	36,383	43,762
<b>Lee</b>	3,180	7,289	7,767	8,304	8,904	9,631
<b>Travis</b>	3,199	19,203	28,658	41,766	85,617	134,438
<b>Williamson</b>	19,421	38,847	66,131	95,500	128,842	163,432
<b>Burleson</b>	995	1,945	1,556	1,164	768	530
<b>Milam</b>	-	35	78	7,222	6,646	6,757
<b>Use Totals</b>	<b>36,821</b>	<b>81,347</b>	<b>124,604</b>	<b>182,425</b>	<b>267,160</b>	<b>358,550</b>

Note: Needs (Potential Shortages) taken from 2017 Texas State Water Plan (2017).

High Tech manufacturing companies are candidate customers for industrial use. The 2016 Region K Water Plan estimates manufacturing demand in Travis County will grow from 35,000 af/yr in 2020 to 91,000 af/yr in 2070.

### ***Delivery and Distribution System***

As discussed in Section 1, Alcoa has entered into a Letter of Intent dated as of April 26, 2021 with EPCOR USA Inc. (EPCOR) regarding the supply of this 25,000 AFY of water for use in Milam County, Williamson County, and the adjacent counties of Lee, Travis and Bell. The project currently envisioned by EPCOR and Alcoa involves phased infrastructure development that will ultimately deliver up to 44,800 AFY. Phase 1 would include an initial 11,200 AFY of groundwater from EPCOR's existing 130 Project delivered via a pipeline extension from the 130 Project. Phase 2 would include an additional supply of up to 33,600 AFY from Sandow Lakes Ranch groundwater delivered by a new pipeline project. Interconnections between the 130 Project and proposed new pipeline would provide significant flexibility and redundancy in water supply to the users. A copy of the Letter of Intent is included under Section 1 of this Application.

Regardless of the ultimate configuration and phasing of the infrastructure, an integrated collection, treatment, and distribution system will be utilized to produce and deliver the groundwater. The approved operating permit includes 56 approved well locations to produce up to 25,000 af/yr from the Simsboro aquifer. Production will be metered at each well. The produced water may, or may not, be mixed with other sources such as Hooper groundwater before pumping to an initial treatment facility. At a minimum, water treatment will include disinfection. One or more booster pump stations will meter the total volume transported, and pump treated water in a dedicated pipeline for delivery to end user locations. Ground storage may be incorporated into the delivery system, or handled by end user ground storage facilities. End users would be responsible for integration into their distribution systems.

### ***Conjunctive Use***

While some water suppliers rely solely on surface water, some water users in the defined location of transport have historically used both surface water and groundwater. In Travis and Williamson Counties, surface water sources include both the Highland Lakes and Lake Georgetown and other smaller reservoirs. Groundwater use has traditionally been from the Edwards and Trinity aquifers. More recently, numerous entities along the IH-35 corridor from Bexar to Williamson Counties have been planning and constructing groundwater supplies from the Carrizo-Wilcox aquifer to diversify their water supply sources.

Groundwater from the Carrizo-Wilcox aquifer is ideal for conjunctive use with drought-susceptible supplies from surface water lakes or the Edwards aquifer. The immense storage volumes of the Carrizo-Wilcox provide a drought resistant source that is not susceptible to annual or drought-cycle variability in rainfall.

### ***Water Conservation***

All wholesale water providers retail public utilities in the State of Texas are required to have water conservation plans and drought contingency plans as required by Texas Administrative Code Title 30, Chapter 288. These plans will have specific and quantified five-year and ten-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the delivery service area, maximum acceptable water loss, and the basis for the development of these goals. Any industrial user will have a process design to minimize water use for the industrial application. Where applicable, these plans will include details of conjunctive use of alternative supplies to optimize water savings and increase drought contingency.

Both wholesale water providers and retail water public utilities are required to maintain metering devices within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted or pumped. The transporter of the water will be required to maintain a program for leak detection, repair, and water loss accounting for the transport permit's water transmission and delivery system. End user utilities will have to do the same, and also have similar programs for the distribution system of the utility.



In the State Water Planning process conservation savings goals are adopted considering the nature of water users groups. For instance, in Region G a future goal of for municipal users is a 1% annual reduction in GPCD until a target of 140 gallons per capita per day is reached. Conservation recommendations for several entities in Williamson County go beyond this and call for a reduction to a target of 120 GPCD by 2070.

See Section 3 of this application for more detailed information on water conservation requirements of wholesale water providers, retail water utilities, and industrial users.

Water conservation plans specific to the transporter and end user utilities will be provided to the District prior to project initiation. The plans will be resubmitted to the District at each 5-year update.

### ***Alternative Water Supply Information***

In the area of the defined location of use, there are multiple water sources currently being utilized. These include surface water from the Highland Lakes system and Brazos River Authority reservoir system, and groundwater from the Edwards aquifer, Trinity aquifer, and also smaller amounts from the Carrizo-Wilcox aquifer.

Including an additional amount of Carrizo-Wilcox groundwater could lead to future water source exchanges between entities. This could include shifting the location of use within the service areas of the Lower Colorado River Authority or the Brazos River Authority. Overall, a more diversified supply may benefit directly, and indirectly, numerous entities within the area.

With respect to an alternative supply plan, the most active water planning in the State of Texas is the State Water Plan planning process. Williamson County, and the three adjacent counties of Lee, Travis, and Bell, are located within either the Brazos G Planning Group - <http://www.brazosgwater.org/>, and/or the Region K Lower Colorado Regional Water Planning Area - <https://www.regionk.org/>. In the Draft 2022 State Water Plan (TWDB, 2021), alternative water supplies evaluated in the Brazos G and Region K areas include new water conservation strategies, new surface water reservoirs including off-channel reservoirs, new groundwater strategies, groundwater supplies utilizing aquifer storage and recovery, conjunctive use of surface and groundwater supplies, and non-potable reuse of water.

### ***Drought and Emergency Supply Plans***

Wholesale water providers and retail water suppliers are required to develop drought contingency plans by the State of Texas. Drought response measures are unique to each public water supply entity. Typical drought response measures include water rate changes, irrigation schedules, mandatory reductions, prohibitions on certain uses, and public notifications. These drought responses are initiated upon defined drought triggers, which include stage-based actions in response to increasing drought severity. Typical triggers are based on surface water reservoir levels, groundwater levels for drought susceptible aquifers, demand levels and system capacity limitations, and others. Each end user can have specific plans based on local supply and demand pattern details.

Drought contingency plans specific to the transporter and end user utilities will be provided to the District prior to project initiation. The plans will be resubmitted at each 5-year update.

### ***Project Timing***

The anticipated time before commencement of construction of additional transportation facilities is within 2 to 4 years after issuance of the requested amendment to Operating Permit No. 0148 and the associated transport permit.

### **References**

Brazos G Regional Water Planning Group, (2015), 2016 Brazos G Regional Water Plan.

Brazos G Regional Water Planning Group, (2020), 2021 Brazos G Regional Water Plan

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