The Element of **Possibility**™

Alcoa's Permit Amendment & Alcoa's Transport Permit Application

Amendment Application for POSGCD Drilling and Operating Permit No. 0148

Transport Permit Application in Conjunction with POSGCD Drilling and Operating Permit No. 0148



2021 July 27



- 1. to authorize use of the water for municipal, commercial and manufacturing uses in addition to industrial use, and;
- 2. to authorize use of the water anywhere within Milam County (which is within the District); and

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- 3. to authorize use of the water anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell (each of which is outside the District); and
- 4. to issue the amended permit with a 40-year term.
- The 56 wells that will produce the water are the same 56 wells that are currently authorized under the operating permit.
- <u>No increase in either the authorized aggregate annual production or the</u> <u>rate of production from any well is requested.</u>



Amendment Application for POSGCD Drilling & Operating Permit No. 0148



Transport Permit Application in Conjunction with POSGCD Drilling and Operating Permit No. 0148

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This Application is for a Transport Permit authorizing transport of up to 25,000 acre-feet per year of the groundwater produced under the amended Simsboro Operating Permit No. 0148 out of the District for use anywhere within Williamson County and the adjacent Counties of Lee, Travis and Bell for a term of 40-years.



Alcoa's Business Case



- Alcoa has had a business presence and has been a community member in the area for over 70 years.
- Alcoa owns nearly 32,000 acres of land and groundwater rights in Milam and Lee Counties known as Sandow Lakes Ranch.
- Just under 25,000 of these acres are in Milam County and the Post Oak Savannah GCD.
- Alcoa is currently marketing the Sandow Lakes Ranch property to prospective buyers.
- Alcoa is granting long-term leases and water supply contracts with new tenants on the property to revitalize and generate economic stimuli.
- Alcoa's objectives include significant long-term economic development within Sandow Lakes Ranch and nearby counties.
- Alcoa believes that economic development between Alcoa's property and the 130 corridor is a critical driver to the economic development of Milam, Burleson and Lee Counties.
- The amended operating permit and the associated transport permit will facilitate regional and local economic development.



- Alcoa has signed a 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 enable delivering groundwater.
 - 1. Phase 1 would include an initial supply of groundwater from EPCOR's existing 130 Project delivered via a pipeline extension from the 130 Project (no Sandow Lakes Ranch groundwater).
 - 2. Phase 2 would include an additional supply of Sandow Lakes Ranch groundwater delivered by a new adjacent pipeline project.
 - 3. Interconnections between the 130 Project and the new pipeline would provide significant flexibility and redundancy in water supply to the users.
 - 4. Potential consumers include a range of municipalities, water supply corporations, river authorities and commercial and industrial parties.

Alcoa's Business Case









- Alcoa has been made aware of potential questions from the Post Oak Savannah District staff and the Post Oak Savannah District board as well as the general public.
- For the benefit of the Board and participants in today's public hearing, Alcoa has prepared the following Q & A.
- In some cases, the same question was asked more than once but worded differently; therefore, Alcoa has combined and summarized these in its Q & A responses.

Question: What does computer modeling predict the Simsboro decline to be if all possible pumping included in the Groundwater Management Area 12 (GMA 12) forecast, plus Alcoa's expected pumping, occurs ? (GMA 12 includes Blue Water/Vista Ridge)



<u>NOTE:</u> The Simsboro potentiometric surface declines shown in the figure would be exactly the same if Alcoa's pumping was modeled using Alcoa's existing POSGCD pumping authorizations.

Alcoa is not requesting approval for any increase in pumping rates!



Question: Why ar

Why are most of Alcoa's wells located on the perimeter of Alcoa's property?





- 1. Alcoa's located these wells in the deepest part of the aquifer that exist on Alcoa's property and also further away from the recharge regions of the aquifer.
- 2. These well locations are the best locations as determined by hydrologic and geologic technical reviews.
- 3. Alcoa's well locations meet the District's well spacing requirements.

Question: Why does Alcoa's Historic Use Permit and Operating Permit include some of the same wells (dual permit wells)?



- 1. The District agreed to this convention when the Operating Permit was approved in 2012, because the wells included in Alcoa's Historic use permit are legacy mining production wells that are collectively capable of pumping more than the 15,000 acre-feet per year authorized under the Historic Use Permit. The additional capacity for these wells was therefore available for use under the Operating Permit so long as Alcoa complied with the limitations of the Historic Use Permit.
- 2. An acceptable resolution was agreed to: The available additional capacity in the Historic wells was authorized under the Operating Permit, so long as (1) each of the 32 dual-use wells was never used to produce more than the authorized instantaneous rate of production under the Historic Use Permit; and (2) the additional production was properly reported as produced under the Operating Permit.
- 3. Prior to declaring Alcoa's current Operating Permit Amendment Application administratively complete, the District's staff asked to receive and subsequently approved metering, accounting and reporting plans to assure groundwater production from the dually permitted wells will be properly reported to the district under the two permits.
- 4. The agreed resolution allows the available additional production capacity in the Historic wells to be utilized and not wasted; otherwise, significant funds would have to be spent to construct new wells to acquire an equivalent production capacity.



- 1. The ultimate customer of the water will be seeking long-term bonds or financing for their respective water supply projects, 40-year terms allow for typical long-term financing of the required major water infrastructure without having to subsequently renew the permits; 30-year terms may be too short for the customers required financing structure.
- 2. 40-year terms generate confidence in the project by other governmental entities, water utilities, and the public general and financial institutions.
- 3. The District granted the Operating Permit in 2012 with a 40-year term.
- 4. District rule number 7.1.9. provides for 40-year permit terms.
- 5. All of the above should result in lower financing costs for the infrastructure and result in lower cost to the ultimate customers/users.
- 6. The Post Oak Savannah District asked Alcoa to show 40-year drawdown in the modeling.

Question: Would shorter permit terms, together with reliance on the certainty of renewal of operating permits under Water Code Section 36.1145, be comparable to 40-year permit terms?



- 1. No. TEXAS WATER CODE SECTION 36.1145, added by the legislature in 2015, does in fact provide certainty that holders of operating permits are entitled as a matter of right to subsequent renewals without a hearing BUT:
 - A. Section 36.1145 is an obscure provision, so the finance industry, other governmental entities, water utilities, and the public generally are not aware it exists; plus, the Section is so new there are limited cases to demonstrate that it is doing what the Texas Legislature intended.
 - B. Section 36.1145 does not apply to Transport Permits.
 - C. Reliance solely on a regulatory statute always carries the risk that a change in law or change in rules might eliminate the automatic renewals, while an actual issued permit does not carry the same risk.

Question: What is the quality of groundwater from Alcoa's property?



- 1. From 1977 through 2018 (41 years), Alcoa provided groundwater monitoring and sampling data to the Railroad Commissions of Texas (RCT) and Texas Commission on Environmental Quality (TCEQ) both on a monthly, quarterly and annual basis. In August of 2018, the RCT issued a Finding-of-Fact and Final Order:
 - (a) Alcoa has conducted surface mining activities to protect groundwater resources in accordance with §12.313(a)(3). The groundwater hydrologic balance has been protected as required by §12.348 and the re-established postmine groundwater system is adequate for the approved postmine use of the subject acreage.

IT IS FURTHER ORDERED that all performance obligations under Permit No. 1G including, without limitation, all requirements for monitoring of surface water and groundwater under Permit No. 1G, as well as all requirements to mark in the field a permit area or any other area, are terminated;

 Over forty years of data exists showing that Simsboro groundwater has not been impacted by industrial activities on Alcoa's properties. Since 2018, Alcoa has initiated additional sampling of Simsboro groundwater to bolster its data set. All testing shows no impacts to groundwater quality. Question: Will Alcoa's mitigation plan (agreed upon during Permit No. 0148 proceedings back on 11/13/2012) still be in effect?



1. Yes. Alcoa is not requesting any changes to the provisions for mitigation contained with in Operating Permit No. 0148.

Question: Is Alcoa selling or leasing the property where the current permit is in place to a new owner or lessee?



- 1. Alcoa has been marketing its property in Milam and Lee Counties of Texas, known as Sandow Lakes Ranch for several years. This has been widely known within the community.
- 2. Sandow Lakes Ranch is nearly 32,000 total acres and Alcoa will sell the property only in a contiguous block, not subdivided.
- 3. There have been and continue to be interested parties and prospective buyers.
- 4. Like any real estate being marketed for sale, a sale may occur at any time that a willing buyer and a willing seller agree on terms for a sale.

Question: How does Alcoa believe that this project will promote, facilitate and assist in the economic development of Milam, Burleson and Lee Counties?



- 1. Alcoa sees this project as an enabler to creating new industrial and commercial economic engines both in the immediate area of Sandow Lakes Ranch in Milam and Lee Counties and to the west, primarily in Williamson County, where there is a tremendous demand for water.
- 2. Supplying water to new industrial and commercial development in Williamson County will promote the growth of desirable, major industrial and commercial development toward Sandow Lakes Ranch and beyond, further to the east, to other areas of Milam County and Burleson County.
- 3. Since the loss of aluminum manufacturing and energy production on Alcoa's property in the past decade, Alcoa has been working hard to redevelop and repurpose the site in the spirit of creating new economic vibrance. Alcoa has already had and is receiving a lot of interest for additional development opportunities associated with its Sandow Lakes Ranch Properties.
- 4. This project has the potential to stimulate economic vibrance beyond that formerly enjoyed by the region for decades.

Question: What can Alcoa and its project partners do to ensure that any testing phases of any current infrastructure, new pipeline or treatment plants do not use water in a wasteful manner?



- 1. While commissioning or repairing facilities that produce, treat, transport or deliver Potable Water, the Texas Commission on Environmental Quality along with the Texas Department of Health have requirements and regulations that require the operator to implement flushing and sanitizing procedures to ensure the Potable Water meets State and Federal drinking water standards.
- 2. These regulatory requirements also mandate that water used in this process may not be reused as a potable sources and must be discarded.
- 3. In addition to meeting all regulatory requirements, Alcoa will ensure that the project specifications include requirements to use water generated during project development and commissioning be beneficially used in accordance with all applicable rules and regulations.

Question: What is Alcoa's dashboard communication and implementation strategy?

- In anticipation of the POSDCD Board approving Alcoa's operating permit amendment and accompanying Transport Permit, Alcoa is developing a first draft of its proposed "POSGCD Well Monitoring Data Management Protocols".
- Alcoa is committed to having functional monitoring equipment installed and the protocols in place, before commercial pumping operations begin under the amended Operating Permit No. 0148, in accordance with POSGCD Board Rule 4.3.





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Question: Should Alcoa's amended operating permit and/or transport permit include requirements for Alcoa to incorporate future POSGCD amended rules?



- 1. Alcoa is always committed to complying with any and all of the District's promulgated rules.
- 2. Like any permit holder or potentially affected party, Alcoa embraces the opportunity to propose new rules or amendments to existing rules and participate in and provide feedback throughout the public comment and hearing phases of the process.
- 3. Again, like any permit holder or potentially affected party, Alcoa reserves the right to challenge any rule or proposed rule with respect to its legality, interpretation, reasonableness, etc.





Alcoa's Permit Amendment & Alcoa's Transport Permit Application

Supplemental Material





Well Name	Latitude	Longitude	Well Category	Approved Maximum Withdrawal Rate (gpm)
58-32-502	30.560556	-97.072222	DUAL HUP-OP	500
58-32-503	30.561667	-97.066112	DUAL HUP-OP	500
AT-1 / AX (10)5	30.54111	-97.05764	DUAL HUP-OP	500
C4052A	30.57223	-97.02831	DUAL HUP-OP	300
C4245	30.57988	-97.02349	DUAL HUP-OP	240
C4246	30.57911	-97.02407	DUAL HUP-OP	250
C4247	30.57784	-97.02452	DUAL HUP-OP	240
C4248A	30.57674	-97.02479	DUAL HUP-OP	230
C4250A	30.57393	-97.02559	DUAL HUP-OP	290
C5245B	30.57941	-97.00878	DUAL HUP-OP	410
C-9-12	30.56138	-97.02401	DUAL HUP-OP	440
C-9-13	30.56657	-97.01864	DUAL HUP-OP	320
C-9-14	30.56227	-97.02189	DUAL HUP-OP	420
C-9-20	30.56734	-97.01604	DUAL HUP-OP	450
DP-S-A-3	30.57033	-97.03935	DUAL HUP-OP	250
DP-S-A-4	30.56881	-97.04432	DUAL HUP-OP	250
DP-S-A-5	30.56458	-97.04714	DUAL HUP-OP	250
DP-S-A-6	30.56225	-97.04861	DUAL HUP-OP	250
DP-S-A-7	30.55998	-97.05018	DUAL HUP-OP	250
E-1/A-9-4	30.588348	-97.019437	DUAL HUP-OP	1,000
F10 Sims	30.52283	-97.06630	DUAL HUP-OP	250
F11 Sims	30.52264	-97.06762	DUAL HUP-OP	250
F12 Sims	30.51527	-97.07801	DUAL HUP-OP	250
F13 Sims	30.51867	-97.07272	DUAL HUP-OP	250
F14 Sims	30.51614	-97.07222	DUAL HUP-OP	250
F15 Sims	30.51738	-97.07004	DUAL HUP-OP	250
F2 Sims	30.51536	-97.07445	DUAL HUP-OP	250
F4 Sims	30.51329	-97.07452	DUAL HUP-OP	250
F6 Sims	30.51804	-97.06758	DUAL HUP-OP	250
F8 Sims	30.51959	-97.06777	DUAL HUP-OP	250
F9 Sims	30.52120	-97.06688	DUAL HUP-OP	250
P-5	30.58484	-97.01220	DUAL HUP-OP	500
		-		

Well Name	Latitude	Longitude	Well Category	Approved Maximum Withdrawal Rate (gpm)
OP-1	30.6217298	-97.003762	OP	1,000
OP-10	30.5422235	-97.029208	OP	1,000
OP-11	30.5394868	-97.028175	OP	1,000
OP-12	30.5367041	-97.02784	OP	1,000
OP-13	30.5354732	-97.031413	OP	1,000
OP-14	30.5331892	-97.033489	OP	1,000
OP-15	30.5315937	-97.038386	OP	1,000
OP-16	30.5252656	-97.048067	OP	1,000
OP-17	30.5174972	-97.05115	OP	1,000
OP-18	30.5046506	-97.0717	OP	1,000
OP-19	30.4985799	-97.078782	OP	1,000
OP-2	30.6051961	-97.008376	OP	1,000
OP-20	30.4957154	-97.084374	OP	1,000
OP-21	30.4938185	-97.091286	OP	1,000
OP-22	30.4901527	-97.095187	OP	1,000
OP-23	30.4859395	-97.103281	OP	1,000
OP-24	30.4843084	-97.106346	OP	1,000
OP-3	30.5988499	-97.008832	OP	1,000
OP-4	30.5814542	-97.011233	OP	1,000
OP-5	30.5750311	-97.011456	OP	1,000
OP-6	30.5590547	-97.018725	OP	1,000
OP-7	30.5542342	-97.01588	OP	1,000
OP-8	30.5511811	-97.024434	OP	1,000
OP-9	30.5450588	-97.031084	OP	1,000

Groundwater Quality Sampling & Analysis



In 2019 and in 2021 samples were collected from several Sandow Lakes Ranch permitted groundwater wells and analyzed by two independent laboratories. Review of the data by an independent thirdparty environmental engineering firm concluded (other than naturally occurring levels of iron and manganese):

"none of the wells yielded samples with constituent concentrations that exceeded federal or state drinking water standards".

















One more point - The term "operating permit" is defined at paragraph (31) of Section 36.001 as follows:

Sec. 36.001. DEFINITIONS. In this chapter:

(31) "Operating permit" means any permit issued by the district for the operation of or production from a well, including a permit to drill or complete a well if the district does not require a separate permit for the drilling or completion of a well.