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## Water Availability Analysis

**WATER AVAILABILITY ANALYSIS FOR  
 THE CAKEBREAD CELLARS WINERY  
 8300 ST. HELENA HIGHWAY, RUTHERFORD, CA  
 APN 031-010-011**

As required by Napa County Planning, Building & Environmental Services (PBES), this study outlines the availability of groundwater for an existing winery located at 8300 St. Helena Highway, Rutherford, CA 94573.

**PROJECT DESCRIPTION**

It is our understanding that Cakebread Cellars Winery is proposing to increase the wine production limit from 500,000 gallons per year to 800,000 gallons per year and the number of employees from 77 to 120. This analysis evaluates the water available for the subject parcel to support the water usage demand from the increase in wine production and additional staff members per Napa County PBES guidelines.

Table 1 summarizes the approved and proposed staffing plan:

<b>TABLE 1: STAFFING PLAN SUMMARY</b>		
<b>Description</b>	<b>Number of Employees</b>	
	<b>Approved</b>	<b>Proposed</b>
Average Number of Employees per day	77	120

Table 2 summarizes the marketing plan:

<b>TABLE 2: MARKETING PLAN SUMMARY</b>				
<b>Description</b>	<b>Current</b>		<b>Permitted</b>	
	<b>Frequency</b>	<b>Number of Guests</b>	<b>Frequency</b>	<b>Number of Guests</b>
Visitor Center Private Tours & Tastings	daily	400-450 per day	daily	450 per day
Food Service Events	13 events per week	18 per event	14 events per week	50 per event
Special Events	3 per year	195 per event	3 per year	195 per event
Open House	1 per year	700 per event	2 day event	832 per day

**EXHIBITS**

The associated USGS “Topographic Site Location Information” included in the Use Permit Modification application package shows the project site and approximate property line locations. Information regarding the location of the existing wells and structures are shown on the associated Use Permit Modification Drawings and the attached “Well Location Exhibit”. All exhibits and drawings mentioned above were prepared by Bartelt Engineering.

**WATER USE CRITERIA**

<b>TABLE 3: GROUNDWATER OVERVIEW</b>	
Parcel Zoning	Agricultural Preserve (AP)
Project Parcel Location	Napa Valley Floor <sup>1</sup>
Parcel Size	36.49 ± acres
Water Use Criteria	1.0 acre-feet per acre per year
Well and Spring Interference	No
Groundwater/Surface Water Interaction	No
Screening Tier	Tier 1

As summarized in Table 3 Groundwater Overview, the subject parcel is located in the Agricultural Preserve (AP) Zoning District. Per the PBES Water Availability Analysis (WAA)-Guidance Document dated May 12, 2015 the water use criteria for a parcel located in the Napa Valley Floor and/or All Other Areas that are not designated as a groundwater deficient area without any well or spring interference must follow Tier 1 requirements.

**SOURCE WATER INFORMATION**

There are currently four (4) groundwater wells available for use by Cakebread Cellars<sup>2</sup>. A description of each water source is summarized below:

- The “Oakville” (AKA “Evensen”) well located on APN 031-010-012 is the primary well for the “Rutherford” Winery and the “Oakville” Winery.
- The “River” (AKA “Glos Lane”) well located on APN 031-010-010 is the secondary well for the “Rutherford” Winery and the “Oakville” Winery.
- The “Oakville Winery” well located on APN 031-010-011 is the backup secondary well for landscape irrigation at the “Oakville” Winery Building.
- The “McKay” well located on APN 031-190-007 is currently not in use, but is intended to be used for landscape irrigation at the “Rutherford” Winery Building.

<sup>1</sup> As displayed on the Napa County Watershed Information & Conservation Council (WICC) website, November 2014 Updates, Interactive Map.

<sup>2</sup> Refer to attached “Joint Use and Cross-Easement Agreement” and “Water Use Agreement” for additional information.

Refer to the Technical, Managerial and Financial (TMF) Capacity worksheet for additional information on the existing water system and proposed modifications included with the Use Permit Modification Application.

### **Well Description**

Well Completion Logs were not available at the time this Water Availability Analysis was written.

### **Well Yield Information**

Well Yield Test data were not available at the time this Water Availability Analysis was written.

### **Water System Classification**

The water system at Cakebread Cellars Winery is permitted as a state regulated Public Water System (PWS)<sup>3</sup> that is classified as “non-community” because it does not serve 25 or more yearlong residents<sup>4</sup> with less than 15 service connections<sup>5</sup>. Furthermore, the water system is also classified as “non-transient” because it serves 25 or more of the same people at least six (6) months of the year. The water system classification of a non-transient non-community (NTNC) public water system will not change as part of this Use Permit Modification Application.

### **Neighboring Water Source(s)**

Based on review of neighboring property records at Napa County PBES and discussions with PBES staff, there does appear to be neighboring wells located within 500 feet of the existing wells.

Refer to the attached “Well Location Map” prepared by Bartelt Engineering for location of the existing onsite wells and neighboring wells.

### **Water Quality**

Raw water was collected from the domestic well and analyzed by Cal Test Laboratories, an accredited lab located in Napa, CA per the California Code of Regulations Title 22. In general, the results do not show any primary constituents testing above the maximum contaminant level. Water quality results are on file with Napa County PBES as part of the Public Water System Permit with the State of California Drinking Water Program.

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<sup>3</sup> The public water system source code number is 28-01075; refer to the public water system permit for additional information.

<sup>4</sup> A yearlong resident must be served by the water system for a least 183 days per year.

<sup>5</sup> Service connection means the point of connection between the user’s piping or constructed conveyance, and the water system’s meter, service pipe, or constructed conveyance.

**GROUNDWATER SUBAREA**

According to the Napa County Watershed Information & Conservation Council (WICC), the subject parcel is located within the Napa Valley Floor – St. Helena groundwater subarea. The St. Helena groundwater subarea of the Napa Valley Floor consists of 12,274± acres.

**WATERSHED INFORMATION**

The subject parcel is located within the lower St. Helena Reach of the Napa River Watershed which is not considered a municipal watershed. The Napa River Basin Watershed consists of 234,194± acres.

**GEOLOGICAL FEATURES**

According to the Soil and Geology Map located on the WICC website, the subject parcel and surrounding areas appear to be underlain with Alluvial Fan Deposits (Holocene & Late Pleistocene).

**WATER DEMAND**

**Estimated Water Use**

The total water demand for the existing and proposed uses for the project is calculated below based on historical data collected by Cakebread Cellars from 2015 through 2018:

<b>TABLE 4: EXISTING WATER DEMAND SUMMARY</b>	
<b>Description</b>	<b>Estimated Water Usage</b>
Winery (500,000 gallons per year)	
Process Water	15.35 acre-feet/year
Domestic and Landscaping Water	2.0 acre-feet/year
Agricultural	
Vineyard Irrigation Only (20.0± acres)	10.0 acre-feet/year
Heat Protection (20.0± acres)	5.0 acre-feet/year
Frost Protection <sup>6</sup>	0.0 acre-feet/year
Recycled Water Credit <sup>7</sup>	-8.2 acre-feet/year
<b>Total Existing Water Demand with Recycled Water Credit</b>	<b>24.15 acre-feet/year</b>

<sup>6</sup> Fans are utilized for frost protection.

<sup>7</sup> Recycled water credit is from irrigation of the total annual treated process wastewater sourced from the vineyard irrigation and fire protection pond. Refer to the pond water balance included with the Onsite Wastewater Dispersal Feasibility Study prepared by Bartelt Engineering for additional information.

**TABLE 5: PROPOSED WATER DEMAND SUMMARY**

<b>Description</b>	<b>Estimated Water Usage</b>
Winery (800,000 gallons per year)	
Process Water	23.6 acre-feet/year
Domestic Water and Landscaping Water	4.0 acre-feet/year
Agricultural	
Vineyard Irrigation Only (20.0± acres)	10.0 acre-feet/year
Heat Protection (20.0± acres)	5.0 acre-feet/year
Frost Protection <sup>8</sup>	0.0 acre-feet/year
Recycled Water Credit <sup>9</sup>	-20.3 acre-feet/year
<b>Total Proposed Water Demand with Recycled Water Credit</b>	<b>22.3 acre-feet/year</b>

As shown in Table 4 and 5, the water demand is estimated to decrease from 24.15 acre-feet/year to 22.3 acre-feet/year as part of the proposed improvements. The primary reduction in overall water demand is the ability to utilize recycled wastewater for vineyard irrigation. The greatest water demand for the proposed project results from wine production.

Refer to the Onsite Wastewater Feasibility Study prepared by Bartelt Engineering for additional information.

**NAPA VALLEY FLOOR ALLOWABLE WATER ALLOTMENT**

Per *Table 2A: Water Use Criteria* from the WAA Guidance Document (2015), the water use criteria for a parcel located in the Napa Valley Floor is defined as 1 acre-feet per acre per year. The subject parcel is entirely located within the Napa Valley Floor. The allowable water allotment for the applicable area is calculated below.

Allowable Water Allotment (acre-ft/yr) =

$$\begin{aligned} & \text{Napa Valley Floor parcel area (acres)} \times \text{Water use criteria (acre-ft/acre-yr)} \\ & = 36.49 \text{ acres} \times 1 \text{ acre-ft/acres-yr} = 36.49 \text{ acre-ft/yr} \end{aligned}$$

The allowable water allotment for the subject parcel is estimated to be 36.49 acre-feet per year.

<sup>8</sup> Fans are utilized for frost protection.

<sup>9</sup> Recycled water credit is from irrigation of the total annual treated process wastewater sourced from the vineyard irrigation and fire protection pond. Refer to the pond water balance included with the Onsite Wastewater Dispersal Feasibility Study prepared by Bartelt Engineering for additional information.

**SUMMARY**

The groundwater demand generated as a result of the proposed project, which includes an increase in wine production and additional staff members is estimated to increase. The use of treated process wastewater for vineyard irrigation is the primary dispersal option. Groundwater is proposed to be sourced from the existing winery wells to supply all project uses that includes domestic and process demands. The proposed project water demand is 22.3 acre-feet per year. The water allotment for the subject parcel is calculated to be 36.49 acre feet per year.

**CONCLUSION**

The above analysis shows that the increase in groundwater demand from the proposed project is less than the subject parcel water allotment and the estimated available water for the subject parcel satisfies the Tier 1 Water Use Criterion of the Napa County Water Availability Analysis.

**ATTACHMENTS**

Topographic Site Location Map  
Well Location Exhibit  
Joint Use and Cross-Easement Agreement  
Water Use Agreement  
Table I – Existing Water Demand  
Table II – Proposed Water Demand

**REFERENCES**

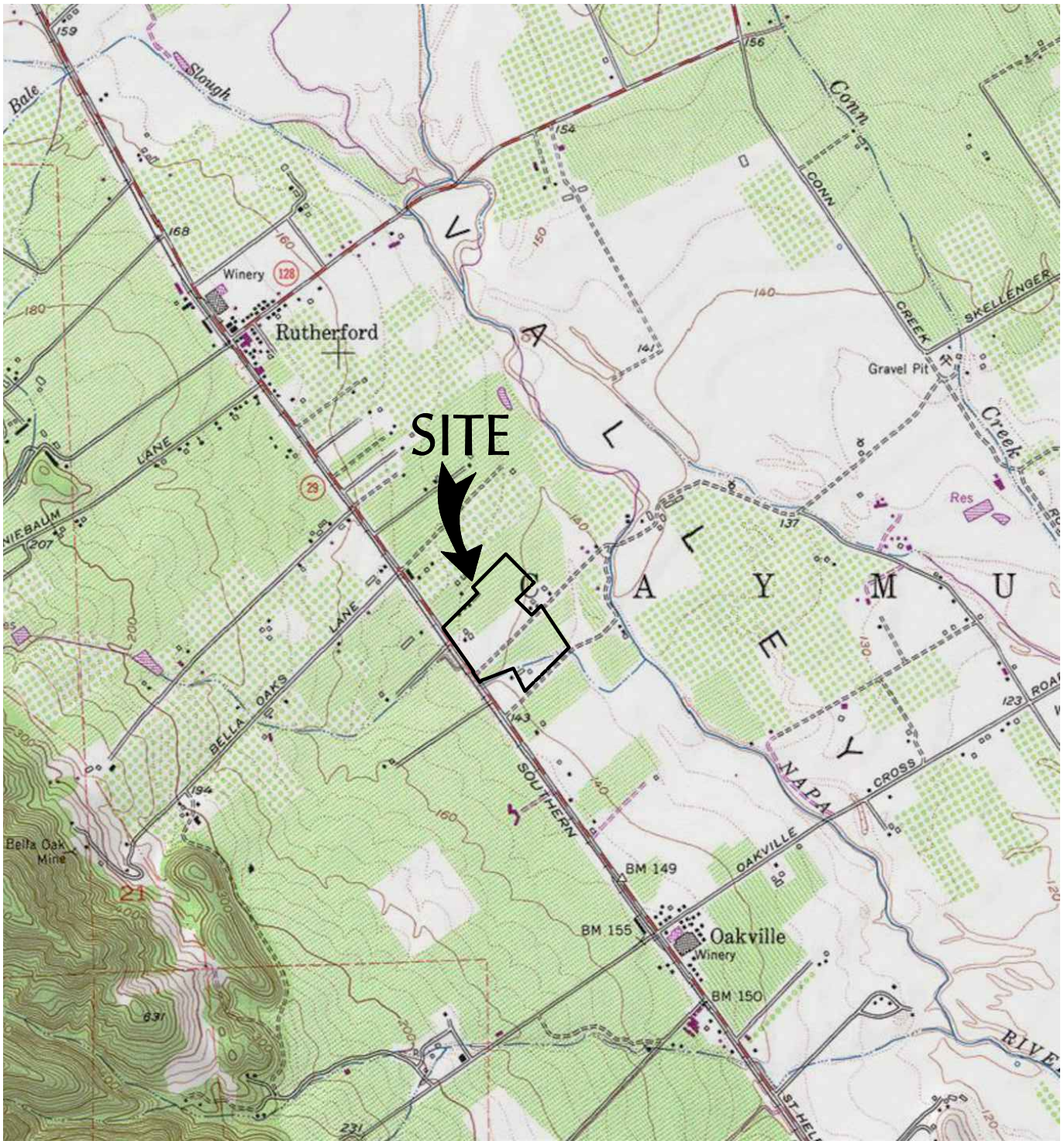
- DHI Water Environment. (2005 - Version 1, November 30). Napa County Baseline Data Report. Chapter 16. Groundwater Hydrology.
- Luhdhorff & Scalmanini Consulting Engineers and MBK Engineers. (January 2013). *Updated Hydrogeological Conceptualization and Characterization of Conditions Prepared for Napa County.*
- Napa County . (2015, May 12). Water Availability (WAA) - Design, Construction and Guidance Document.
- Napa County Watershed Information & Conservation Council (WICC). (n.d.). Retrieved from [www.napawatersheds.org](http://www.napawatersheds.org)
- Stamski, R. (2007). Geologic map and map database of eastern Sonoma and western Napa Counties, California. U.S. Geological Survey Scientific Investigations Map 2956.
- United States Geological Survey (USGS). (1960). Geology and Ground Water in the Napa and Sonoma Valleys, Napa and Sonoma Counties, California. *US Geological Survey Water Supply Paper 1495.*

# TOPOGRAPHIC SITE LOCATION INFORMATION



USGS 7.5 MINUTE QUADRANGLE "RUTHERFORD"

Scale: 1" = 2000'



R. 5 W.

T. 7 N.

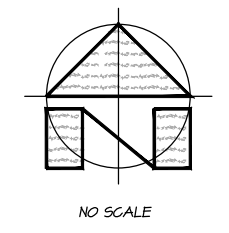
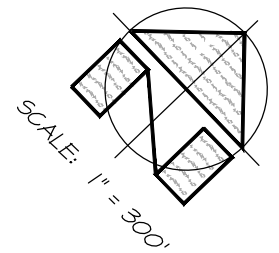
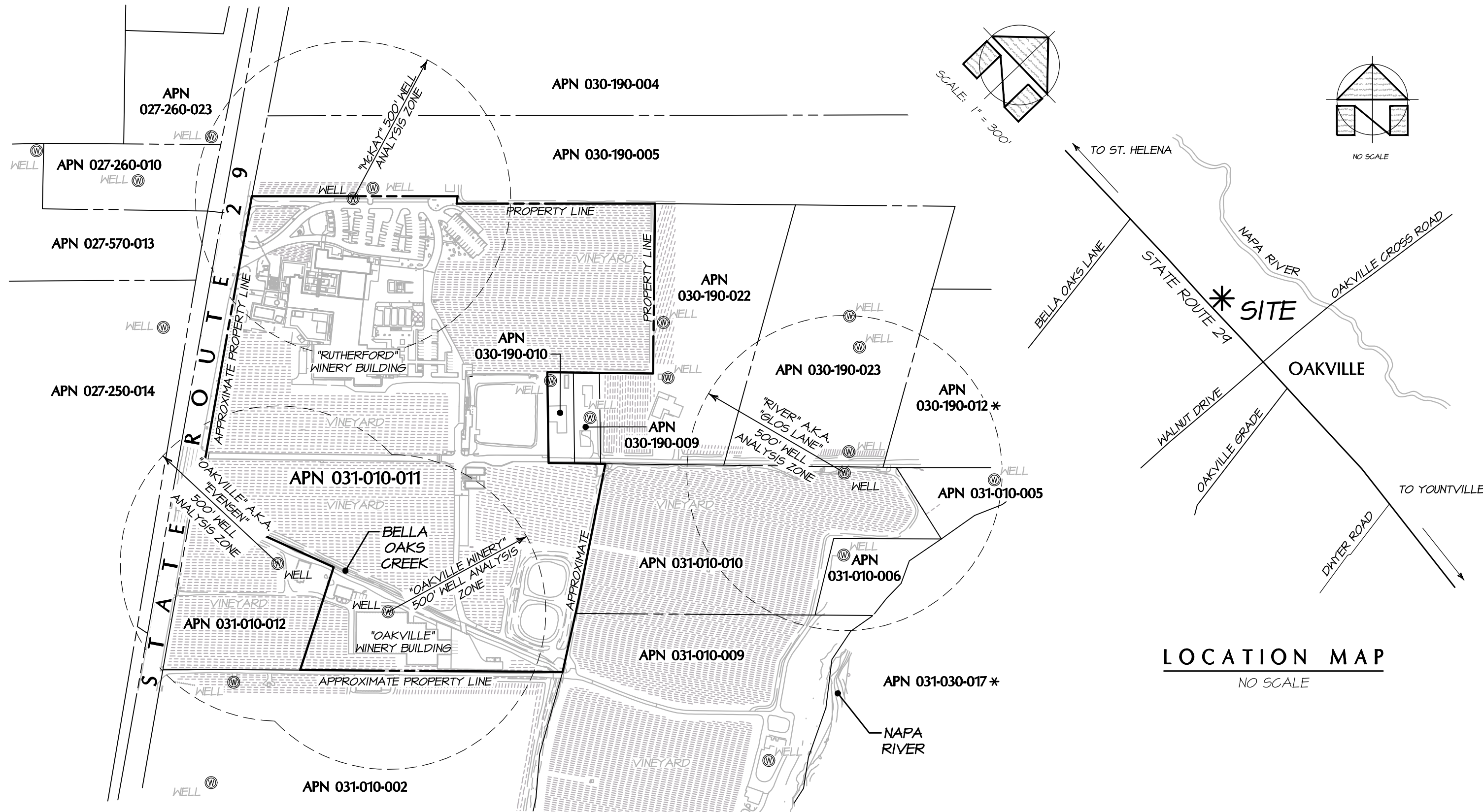
## **BARTELT**

**ENGINEERING**  
CIVIL ENGINEERING · LAND PLANNING  
1303 Jefferson Street, 200 B, Napa, CA 94559  
[www.barteltengineering.com](http://www.barteltengineering.com)  
Telephone: 707-258-1301

Cakebread Cellars  
8300 St. Helena Highway  
Rutherford, CA 94573  
APN 031-010-011

Job No. 98-62





**LOCATION MAP**  
NO SCALE

**WELL LOCATION EXHIBIT**  
SCALE: 1" = 300'

**NOTES:**

\* NO RECORDED WELL INFORMATION FOUND FOR THIS PARCEL.  
WELL LOCATIONS ARE APPROXIMATE AND ARE BASED ON DATA OBTAINED FROM NAPA COUNTY ENVIRONMENTAL HEALTH DIVISION RECORDS. WELL LOCATION RECORDS VARY IN ACCURACY. LOCATION OF WELLS SHOULD BE FIELD VERIFIED.

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Cakebread Cellars  
8300 Saint Helena Highway  
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APN 031-010-011  
Job No. 98-62  
Revised - September 2019  
Sheet 1 of 1

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Recorder

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Page 1 of 7

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Fidelity National Title Company

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Reverdy Johnson, Esq.  
Scheuer, Yost & Patterson  
125 Lincoln Avenue, Suite 223  
Santa Fe, NM 87504-9570  
#803130-DC

### JOINT USE AND CROSS-EASEMENT AGREEMENT

THIS JOINT USE AND CROSS-EASEMENT AGREEMENT, dated August 2, 1999 for reference purposes, is made and entered into by and between CAKEBREAD PROPERTIES II, L.P., a California limited partnership ("CP2") and JACK & DOLORES, LLC, a Delaware limited liability company ("J&D").

J&D owns the real property described in Exhibit A attached hereto (the "Front Parcel"), and CP2 owns the real property described in Exhibit B attached hereto (the "Winery Parcel"). The Front Parcel and the Winery Parcel are contiguous to each other, and share or will share certain water production, storage and treatment facilities and certain waste water disposal facilities that are located or will be located on one or both of the Front Parcel and the Winery Parcel. The driveway located on the Front Parcel is also to serve as a emergency access to the Winery Parcel for fire suppression equipment, and to be used for underground utilities to the Winery Parcel.

In consideration of the mutual covenants contained herein, J&D and CP2 hereby grant to each other the following easements, and for themselves and their respective successors and assigns, hereby agree as follows:

1. Sanitary waste from the residence on the Front Parcel shall be held in a septic tank on the Winery Parcel with sanitary waste from the Winery Parcel, and effluent from the septic tank shall be pumped to a common septic leach field located on the Front Parcel, and in connection therewith the parties grant the following easements:

(a) CP2 hereby grants to J&D a non-exclusive easement appurtenant to the Front Parcel to use the waste water disposal facilities on the Winery Parcel identified on Exhibit C attached hereto as "Septic Tank" and "Pump Station" for retention of sanitary waste in the septic tank and pumping of effluent from the septic tank to the leach field located on the Front Parcel.

(b) J&D hereby grants to CP2 a non-exclusive easement appurtenant to the Winery Parcel to use the waste water disposal facilities on the Front Parcel identified on Exhibit C attached hereto as "Leach Field" for the disposal of effluent from the sanitary waste septic tank on the Winery Parcel.

2. Water produced from the well situated on the Front Parcel in the location identified as "Well A" on Exhibit C attached hereto ("Well A") and water produced from the well situated on the Winery Parcel in the location identified as "Well B" on Exhibit C attached hereto ("Well B") shall be available for reasonable residential and agricultural use on the Front Parcel and reasonable winery and agricultural use on the Winery Parcel. Except to the extent that water from Well A is treated within the residence on the Front Parcel, water for winery or residential use shall be stored and treated at the water storage and treatment facilities situated on the Winery Parcel within or adjacent to the Storage Building so identified on Exhibit C attached hereto (the "Storage Building"). In connection with the foregoing, the parties grant the following easements:

(a) J&D hereby grants to CP2 a non-exclusive easement appurtenant to the Winery Parcel to use water produced from Well A on the Winery Parcel.

(b) CP2 hereby grants to J&D a non-exclusive easement appurtenant to the Front Parcel to use water produced from the Well B on the Front Parcel, together with a non-exclusive easement to use the water storage and treatment facilities situated within or adjacent to the Storage Building for the storage and treatment of water from Well A in common with water from Well B that is to be used for winery or residential purposes.

3. Each easement herein granted in paragraph 1 or 2 above shall be for the specific purposes indicated and all ordinary purposes incidental thereto, including, without limitation, the use of pipes, valves, pumps, electrical facilities and access to all of the foregoing.

4. J&D hereby grants to CP2 a non-exclusive easement appurtenant to the Winery Parcel to use the driveway from St. Helena Highway across the Front Parcel in the location indicated on Exhibit C attached hereto for underground utilities serving the Winery Parcel and as an emergency access to the Winery Parcel for fire suppression vehicles and equipment. J&D and CP2 agree that a gate shall be installed across the driveway at the property line between the Front Parcel and the Winery Parcel, that the gate shall remain locked unless otherwise mutually agreed, and that the gate shall be openable by any fire suppression agency requiring access to the Winery Parcel.

5. J&D shall be responsible, at its cost, for the proper operation, maintenance, repair

and replacement of all water production facilities and all waster water disposal facilities that are located on the Front Parcel and the driveway located on the Front Parcel, and CP2 shall be responsible, at its cost, for the proper operation, maintenance, repair and replacement of all water production facilities, water storage and treatment facilities and waste water disposal facilities that are located on the Winery Parcel, and the driveway gate at the property line between the Front Parcel and the Winery Parcel. If J&D fails properly to operate, maintain, repair or replace the facilities for which it is responsible, CP2 shall have the right to perform the same and recover the costs thereof from J&D; if CP2 fails properly to operate, maintain, repair or replace the facilities for which it is responsible, J&D shall have the right to perform the same and recover the costs thereof from CP2.

IN WITNESS WHEREOF, J&D and CP2 have executed this Joint Use and Cross-Easement Agreement.

JACK & DOLORES, LLC, a  
Delaware limited liability company

By [Signature]  
John E. Cakebread  
Managing Member

CAKEBREAD PROPERTIES II, L.P., a  
California limited partnership

By Jack & Dolores, LLC, a Delaware  
limited liability company, General Partner

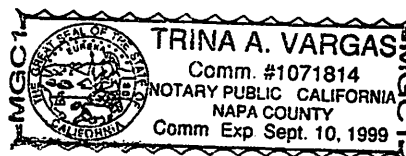
By [Signature]  
John E. Cakebread  
Managing Manager

STATE OF CALIFORNIA ) ss.  
COUNTY OF NAPA )

On August 16, 1999, before me, Trina A. Vargas, a notary public personally appeared John E. Cakebread, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Jack & Dolores, LLC, a Delaware limited liability company, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature [Signature]

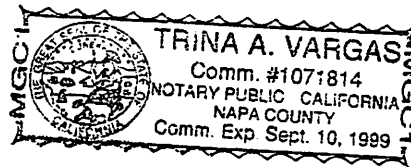


STATE OF CALIFORNIA) ss.  
COUNTY OF NAPA )

On August 16, 1999, before me, Trina A. Vargas, a notary public personally appeared John E. Cakebread, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Cakebread Properties II, L.P., a California limited partnership, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature Trina A. Vargas



**MICHAEL W. BROOKS & ASSOC.**

A CORPORATION  
SUITE D3, VINTAGE 1870  
YOUNTVILLE, CA 94599  
707/944-8743  
FAX 707/944-9639

MICHAEL W. BROOKS, PLS  
ROBERT T. SERRAO, PLS

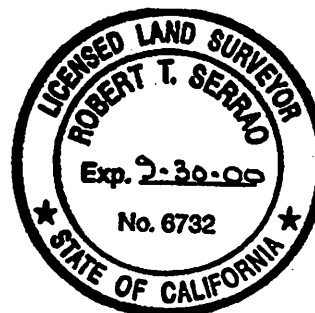
LEGAL DESCRIPTION

Lands of Cakebread  
Old A.P.N. 31-010-07

PLEASE INITIAL  
*[Handwritten initials]*

Commencing at the most western corner of the tract of land described in the Deed to Jack and Dolores, LLC, a Delaware Limited Liability Company, recorded December 5, 1997, under Series Document Number 1997 028904 of Official Records, Napa County Records, said point being the same as shown on Map No. 5019, recorded March 11, 1998 in Book 31 of Surveys at page 84, said Napa County records; thence along the northern line of said Lands of Jack and Dolores as shown on said map North 49°00'20" East 42.80 feet and North 69°03'00" East 448.12 feet; thence leaving said northern line South 27°18'20" East 343.58 feet to a point on the southern line of said Lands of Jack and Dolores as shown on said map; thence along said southern line South 45°00' West 435.11 feet to the northeastern line of Highway 29; thence along said northeastern line North 35°18'20" West 520.37 feet to the point of commencement.

Containing 4.56 acres of land.



*Robert T. Serrao*

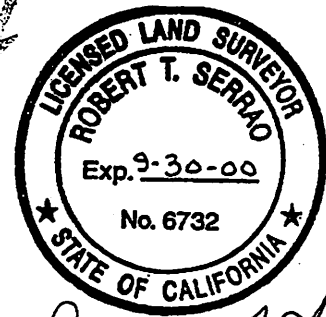
**EXHIBIT "A"**

**MICHAEL W. BROOKS & ASSOC.**

A CORPORATION  
VINTAGE 1870, SUITE D3  
6525 WASHINGTON STREET  
YOUNTVILLE, CA 94599  
707/944-8743  
FAX 707/944-9639  
EMAIL brooks@napanet.net

MICHAEL W. BROOKS, PLS  
ROBERT T. SERRAO, PLS

PLEASE INITIAL  
*[Handwritten initials]*



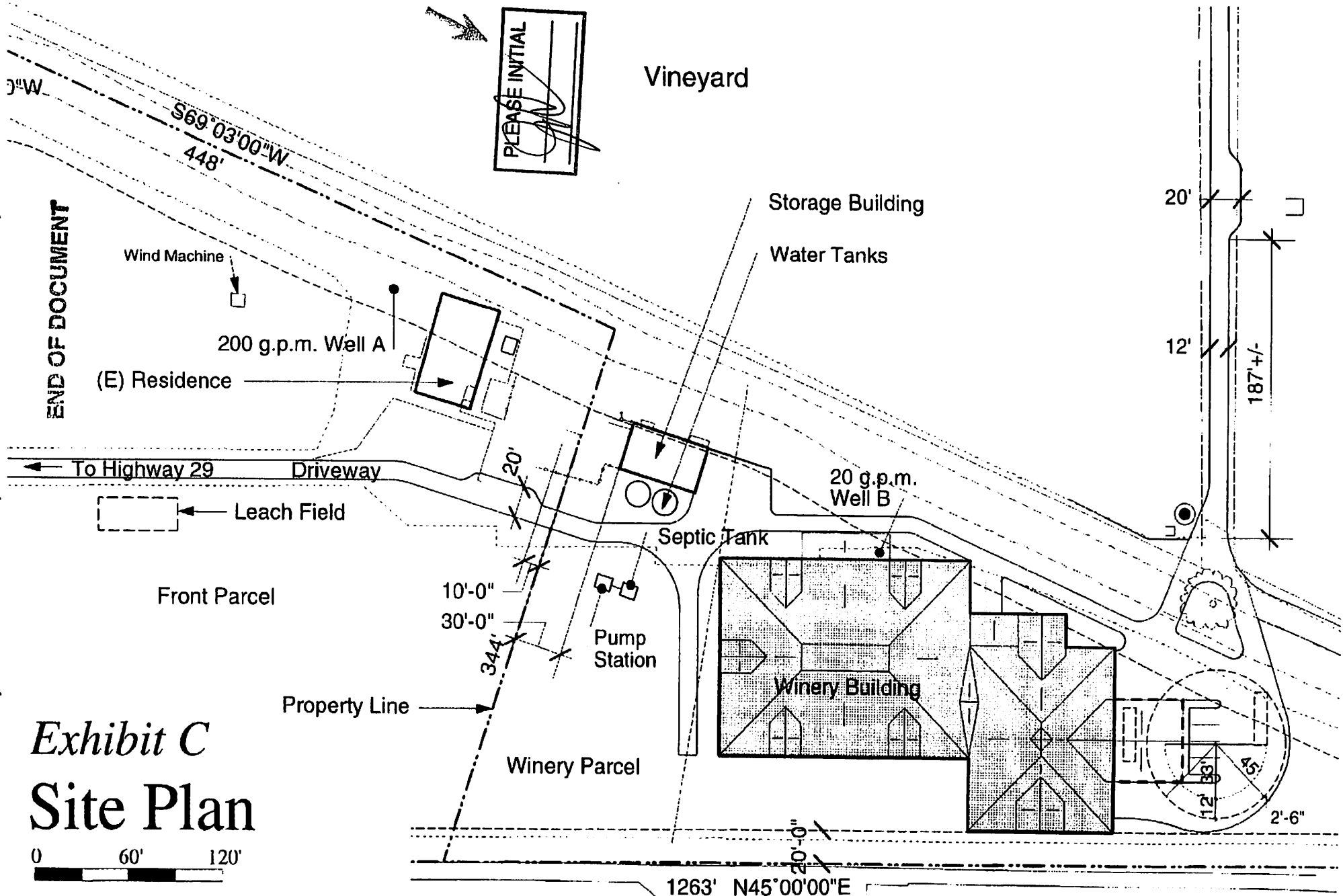
**LEGAL DESCRIPTION**

Lands of Cakebread Properties II, L.P.  
New Parcel comprised of APN 31-010-08 and portion of 31-010-07

Commencing on the northeastern line of the State Highway leading from Oakville to Rutherford at the most southern corner of the 0.66 acre tract of land conveyed to Louisa Kuebeler by deed dated April 2, 1936 and recorded in Book 107 of Official Records, at page 141, said Napa County Records, thence along the northeastern line of said State Highway South 35°10' East 870.54 feet to the most western corner of the tract of land described in the deed to Jack and Dolores, LLC, a Delaware Limited Liability Company, recorded December 5, 1997, under Series Document Number 1997 028904 of Official Records, said Napa County Records, said point also being the same as shown on Map No. 5019 recorded March 11, 1998 in Book 31 of Surveys at page 84, said Napa County Records; thence along the northern line of said Lands of Jack and Dolores, LLC, as shown on said map North 49°00'20" East 42.80 feet and North 69°03'00" East 448.12 feet; thence leaving said northern line South 27°18'20" East 343.58 feet to a point on the southern line of said Lands of Jack and Dolores, LLC, as shown on said map; thence along said southern line and the northeasterly extension thereof North 45°00' East 832.75 feet to a ¾" iron pipe on the northeast bank of a drainage ditch; thence North 33°00'00" West 238.92 feet to a ¾" iron pipe; thence North 34°15' West 435.60 feet to a 2" iron pipe; thence South 45°20' West 179.95 feet, more or less, to a point distant thereon South 45°20' West 329.25 feet from the most southern corner of the 1.00 acre tract of land conveyed to C. F. Turner by Deed of record in Book 96 of Deeds, at page 543, said Napa County Records; thence North 46°11' West 288.10 feet; thence North 45°20' East 335.25 feet to the southwestern line of said 1-acre tract conveyed to Turner; thence North 44°45' West along the last mentioned line 537.66 feet to the most western corner thereof on the southeastern line of the 20-acre tract of land conveyed to Louisa Kuebeler by deed dated July 19, 1906 and recorded in Book 86 of Deeds at page 166 said Napa County Records; thence along the southeastern line of said 20-acre tract, South 45°20' West 717 feet to the most northern corner of the 0.66 acre tract of land conveyed to Louisa Kuebeler and hereinbefore mentioned; thence along the northeastern line of said 0.66 acre tract, South 37°45' East 100 feet to the most eastern corner thereof; thence along the southeastern line of said 0.66 acre tract of land South 45°20' West 217 feet and South 45°32' West 457 feet to the point of commencement.

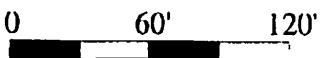
PLEASE INITIAL

Vineyard



END OF DOCUMENT

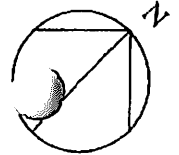
# Exhibit C Site Plan



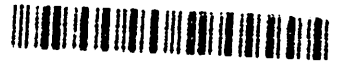
July 15, 1999

**Cakebread Cellars**  
Phase 6  
Rutherford, Napa Valley, California 94573

**BRANDENBURGER ASSOCIATES**  
74 NEW MONTGOMERY ST. SAN FRANCISCO, CA 94105 (415) 243-4474 FAX (415) 243-4411  
**ARCHITECTURE/LAND PLANNING**







1999-0029259

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NAPA  
JOHN TUTEUR  
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Reverdy Johnson, Esq.  
Scheuer, Yost & Patterson  
125 Lincoln Avenue, Suite 223  
Santa Fe, NM 87504-9570

**WATER USE AGREEMENT**

THIS WATER USE AGREEMENT is made and entered into as of August 2, 1999, by and among PACIFIC COAST FARM CREDIT SERVICES, ACA, a corporation organized and existing under the laws of the United States of America ("Farm Credit"), CAKEBREAD PROPERTIES I, L.P., a California limited partnership ("CP1"), and CAKEBREAD PROPERTIES II, L.P., a California limited partnership ("CP2").

CP1 owns the real property described in Exhibit A attached hereto ("River Ranch B"). CP2 owns the real property described Exhibit B attached hereto (the "Winery Parcel") and the real property described in Exhibit C attached hereto ("River Ranch A"). On River Ranch A is located a well producing 400-600 gallons per minute and related pumps, pipes and electrical facilities (the "River Ranch Well"). On the Winery Parcel is located an irrigation reservoir and related pumps, pipes and electrical facilities (the "Winery Parcel Reservoir"). The Winery Parcel is encumbered by the lien of a Deed of Trust and Assignment of Rents dated July 19, 1999 from CP2, as Trustor, to Farm Credit as Trustee and Beneficiary, recorded ~~August~~ <sup>September</sup> 15, 1999 in Napa County Records as Recorder's Series No. 1999-0029257 (the "Deed of Trust"). The Deed of Trust does not encumber the River Ranch A or River Ranch B. The purpose of this agreement is to address the rights and obligations of the parties in the event the Deed of Trust is foreclosed or the Winery Parcel is acquired by Farm Credit pursuant to a deed in lieu of foreclosure. Accordingly, Farm Credit, CP1 and CP2 hereby agree as follows, conditioned upon and effective only upon the acquisition of the Winery Parcel by foreclosure of the Deed of Trust or by deed in lieu of foreclosure:

- 1. The production of water from the River Ranch Well shall be subject to joint

use by the owner of the Winery Parcel for domestic, winery, irrigation and frost protection purposes on the Winery Parcel, and by the owner of River Ranch A and the owner of River Ranch B for domestic, irrigation and frost protection purposes on River Ranch A and River Ranch B.

2. Water stored in the Winery Parcel Reservoir shall be subject to joint use by the owner of the Winery Parcel for irrigation and frost protection purposes on the Winery Parcel, and by the owner of River Ranch A and the owner of River Ranch B for irrigation and frost protection purposes on River Ranch A and River Ranch B, subject in all instances to the maintenance of the minimum volume of water required for structural fire flow purposes in connection with the winery on the Winery Parcel.

3. The owner of the River Ranch A shall operate, maintain, repair and replace the River Ranch Well, and the owner of the Winery Parcel shall operate, maintain, repair and replace the Winery Parcel Reservoir. The costs of operation, maintenance, repair and replacement of the River Ranch Well and the Winery Parcel Reservoir shall be borne by the owner of River Ranch A, the owner of River Ranch B and the owner of the Winery Parcel in proportion to their respective uses of the River Ranch Well and the Winery Parcel Reservoir.

4. Farm Credit, CP1 and CP2 agree that, as among themselves, the references to the River Ranch Well and the Winery Parcel Reservoir are sufficient to identify their extent and location. Each party hereby agrees that it shall execute any instruments or perform any other act that may be necessary to locate the River Ranch Well or the Winery Parcel Reservoir more specifically, if required for sale, financing or refinancing of any of the Winery Parcel, River Ranch A or River Ranch B.

5. This agreement supercedes and replaces that certain Water Use Agreement dated October 31, 1996 between Farm Credit and John E. Cakebread and Dolores E. Cakebread, as Trustees of The Cakebread Family Revocable Trust, predecessor-in-interest of CP1 and CP2, recorded November 7, 1996 in Napa County Official Records as Instrument No. 1996-026910.

6. This agreement shall be binding upon the respective successors and assigns of Farm Credit, CP1 and CP2.

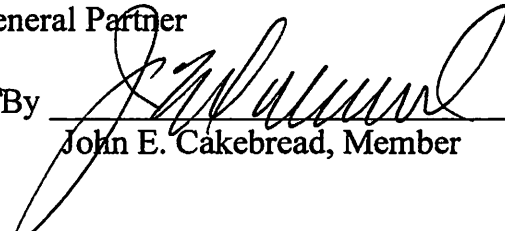
IN WITNESS WHEREOF, Farm Credit, CP1 and CP2 have executed this Water Use Agreement as the date first above written.

PACIFIC COAST FARM CREDIT SERVICES, ACA

By   
Jeffrey D. Kanter, Vice President

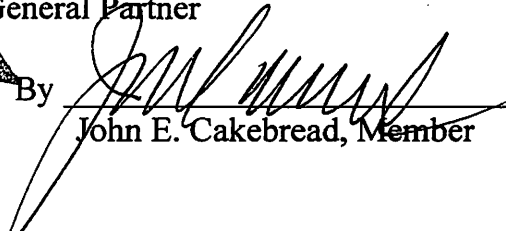
CAKEBREAD PROPERTIES I, L.P.,  
a California limited partnership

By Jack & Dolores, LLC, a Delaware limited liability company,  
General Partner

By   
John E. Cakebread, Member

CAKEBREAD PROPERTIES II, L.P.,  
a California limited partnership

By Jack & Dolores, LLC, a Delaware limited liability company,  
General Partner

By   
John E. Cakebread, Member

### SUBORDINATION

In order to induce Pacific Coast Farm Credit Services, ACA, to execute the foregoing Water Use Agreement, Cakebread Cellars, as lessee of the River Ranch Well and the Winery Parcel Reservoir pursuant to the terms of that certain Waterworks Improvements Lease dated September 30, 1996 between John E. Cakebread and Dolores E. Cakebread, as Trustees of the Cakebread Family Revocable Trust, predecessor-in-interest of Cakebread Properties II, L.P., Lessor, and Cakebread Cellars, Lessee (the "Waterworks Improvements Lease"), hereby agrees that its rights under the Waterworks Improvements Lease shall be subject and subordinate to the foregoing Water Use Agreement and to the Deed of Trust referred to therein, including all additional advances

heretofore or hereafter made under the Deed of Trust.

CAKEBREAD CELLARS, a California corporation

By *[Signature]*  
John E. Cakebread  
Chief Executive Officer

STATE OF CALIFORNIA) ss.  
COUNTY OF NAPA )

On August 16, 1999, before me, Trina A. Vargas, a notary public personally appeared John E. Cakebread, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Cakebread Properties I, L.P., a California limited partnership, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature *Trina A. Vargas*



STATE OF CALIFORNIA) ss.  
COUNTY OF NAPA )

On August 16, 1999, before me, Trina A. Vargas, a notary public personally appeared John E. Cakebread, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Cakebread Properties II, L.P., a California limited partnership, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature *Trina A. Vargas*  
STATE OF CALIFORNIA) ss.

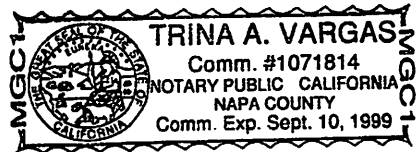


COUNTY OF NAPA )

On August 13, 1999, before me, Trina A. Vargas, a notary public personally appeared Jeffrey D. Kanter, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Pacific Coast Farm Credit Services, ACA, a corporation organized and existing under the laws of the United States of America, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature Trina A. Vargas



STATE OF CALIFORNIA) ss.  
COUNTY OF NAPA )

On August 16, 1999, before me, Trina A. Vargas, a notary public personally appeared John E. Cakebread, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity, Cakebread Cellars, a California corporation, upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,

Signature Trina A. Vargas



EXHIBIT A

PLEASE INITIAL  
*[Handwritten initials]*

LEGAL DESCRIPTION OF RIVER RANCH B

All that certain real property in the County of Napa, State of California, described as follows:

All that certain real property in the County of Napa, State of California, described as follows:

Commencing at a point in the middle of Napa River, from which a stake on the right bank bears North 44° 40' West 75 links distant, and from said stake an oak tree eighteen inches in diameter bears South 48 ½° East 32 links distant, the said point of commencement being the Northeasterly corner of the tract of land bought by Mathias Fealy from J. C. Sullenger by Deed dated March 13, 1882 and of record in Liber 29 of Deeds at page 392, said Napa County Records, running thence from said point of commencement North 44° 40' West 75 links to said stake on the bank of said Napa River; thence along the Northwestern line of said tract conveyed by Sullenger to Fealy, South 45° West 21.65 chains to a stake marked "2" at the Northeastern corner of the 19.36 acre tract sold by Mathias Fealy and wife to Louis Debanne by Deed of record in Liber 38 of Deeds at page 361, Napa County Records; thence along said Debanne's Northeastern line South 34 ½° East 6.60 chains and South 33° East, 3.62 chains to a stake marked "3" at Debanne's Southeastern corner; thence along the middle of a large ditch South 29 ¾° East 4.10 chains, South 40 ¾° East 2.13 chains, South 32 ¾° East 1.00 chains, South 52 ¾° East 2.80 chains and South 69 ¼° East 2.05 chains to the Southeastern line of said tract conveyed by Sullenger to Fealy, thence along said last mentioned line North 45° East 10.00 chains to the middle of Napa River, and thence up the middle of said Napa River, following all the meanderings thereof to the point of commencement, and being a portion of the Caymus Rancho.

Excepting therefrom that portion thereof heretofore conveyed by Deed dated August 30, 1943 and recorded in Book 202 at page 352 of Official Records of Napa County.

Also excepting therefrom that portion thereof heretofore conveyed by Deed dated August 30, 1943 and recorded in Book 202 at page 346 of Official Records of Napa County.

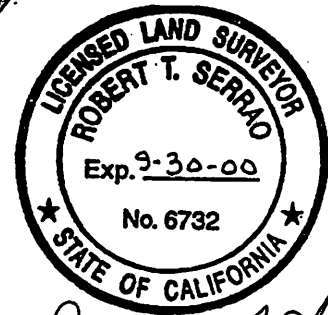
Portion of APN# 031-010-004

**MICHAEL W. BROOKS & ASSOC.**

A CORPORATION  
 VINTAGE 1870, SUITE D3  
 6525 WASHINGTON STREET  
 YOUNTVILLE, CA 94599  
 707/944-8743  
 FAX 707/944-9639  
 EMAIL brooks@napanet.net

MICHAEL W. BROOKS, PLS  
 ROBERT T. SERRAO, PLS

PLEASE INITIAL



*Robert T. Serrao*

**LEGAL DESCRIPTION**

Lands of Cakebread Properties II, L.P.  
 New Parcel comprised of APN 31-010-08 and portion of 31-010-07

Commencing on the northeastern line of the State Highway leading from Oakville to Rutherford at the most southern corner of the 0.66 acre tract of land conveyed to Louisa Kuebeler by deed dated April 2, 1936 and recorded in Book 107 of Official Records, at page 141, said Napa County Records, thence along the northeastern line of said State Highway South 35°10' East 870.54 feet to the most western corner of the tract of land described in the deed to Jack and Dolores, LLC, a Delaware Limited Liability Company, recorded December 5, 1997, under Series Document Number 1997 028904 of Official Records, said Napa County Records, said point also being the same as shown on Map No. 5019 recorded March 11, 1998 in Book 31 of Surveys at page 84, said Napa County Records; thence along the northern line of said Lands of Jack and Dolores, LLC, as shown on said map North 49°00'20" East 42.80 feet and North 69°03'00" East 448.12 feet; thence leaving said northern line South 27°18'20" East 343.58 feet to a point on the southern line of said Lands of Jack and Dolores, LLC, as shown on said map; thence along said southern line and the northeasterly extension thereof North 45°00' East 832.75 feet to a ¾" iron pipe on the northeast bank of a drainage ditch; thence North 33°00'00" West 238.92 feet to a ¾" iron pipe; thence North 34°15' West 435.60 feet to a 2" iron pipe; thence South 45°20' West 179.95 feet, more or less, to a point distant thereon South 45°20' West 329.25 feet from the most southern corner of the 1.00 acre tract of land conveyed to C. F. Turner by Deed of record in Book 96 of Deeds, at page 543, said Napa County Records; thence North 46°11' West 288.10 feet; thence North 45°20' East 335.25 feet to the southwestern line of said 1-acre tract conveyed to Turner; thence North 44°45' West along the last mentioned line 537.66 feet to the most western corner thereof on the southeastern line of the 20-acre tract of land conveyed to Louisa Kuebeler by deed dated July 19, 1906 and recorded in Book 86 of Deeds at page 166 said Napa County Records; thence along the southeastern line of said 20-acre tract, South 45°20' West 717 feet to the most northern corner of the 0.66 acre tract of land conveyed to Louisa Kuebeler and hereinbefore mentioned; thence along the northeastern line of said 0.66 acre tract, South 37°45' East 100 feet to the most eastern corner thereof; thence along the southeastern line of said 0.66 acre tract of land South 45°20' West 217 feet and South 45°32' West 457 feet to the point of commencement.

EXHIBIT C

LEGAL DESCRIPTION OF RIVER RANCH A



All that certain real property in the County of Napa, State of California, described as follows:

Commencing at a point on the Northwestern line of that certain tract of land conveyed to Mathias Fealy by J. C. Sullenger by Deed dated march 13, 1882 and of record in volume 29 of Deeds at page 392, said Napa County Records, and distant thereon South 45° West 506.45 feet from the most Northern corner of said tract; running thence along the Northwestern line of said tract so conveyed by Sullenger to Fealy South 45° West 922.45 feet; thence running South 34° 30' East 435.60 feet; thence South 33° East 49.0 feet; thence North 45° East 1145.28 feet to the middle of Napa River; thence running up the middle of said Napa River North 1° 21' West 106.46 feet, and thence North 21° 39' West 47.0 feet; thence leaving the middle of said Napa River and running North 77° 20' West 421.40 feet to the point of commencement, and being a portion of the Caymus Rancho.

Excepting therefrom that portion described in the Deed to Donald E. Glos, et ux, recorded May 5, 1955 in Book 473 at page 507 of Official Records of Napa County.

Portion of APN# 031-010-004



## Cakebread Cellars Winery Existing Water Demand Table I



**Winery Production Limit:**  
**Vineyard Area:**

**500,000 gallons/year**  
**20 acres**

<b>EXISTING WATER DEMAND</b>		
<b>Description</b>	<b>Water Usage Rate<sup>1</sup></b>	<b>Water Demand (acre-feet/year)</b>
<u>Residential</u>		
Primary Residence	0.75 acre-feet/acre-year	-
Secondary Residence or Farm Labor Dwelling	0.2-0.3 acre-feet/acre-year	-
<u>Agricultural</u>		
Vineyards		
Irrigation Only	0.50 acre-feet/acre-year	10.00
Heat Protection	0.25 acre-feet/acre-year	5.00
Frost Protection <sup>2</sup>	0.25 acre-feet/acre-year	-
Irrigated Pastures	4.0 acre-feet/acre-year	-
Orchards	4.0 acre-feet/acre-year	-
Livestock (sheep or cows)	0.01 acre-feet/acre-year	-
<u>Winery<sup>4</sup></u>		
Process Water	3.07 acre-feet/100,000 gallon of wine	15.35
Domestic & Landscaping	0.40 acre-feet/100,000 gallon of wine	2.00
Employees	15 gallons/per shift	-
Tasting Room Visitation	3 gallons per visitor	-
Events and Marketing, with on-site catering	15 gallons per visitor	-
<u>Industrial</u>		
Food Processing	31 acre-feet/employee-year	-
Printing/Publishing	0.60 acre-feet/employee-year	-
<u>Commercial</u>		
Office Space	0.01 acre-feet/employee-year	-
Warehouse	0.05 acre-feet/employee-year	-
<i>Total Existing Water Demand (acre-feet/year):</i>		32.35
<i>Recycled Water Credit From Treated Process Wastewater (acre-feet/year)<sup>3</sup>:</i>		-8.20
<i>Estimated Existing Water Demand (acre-feet/year):</i>		24.15
<i>Estimated Existing Water Demand (gallons/year):</i>		7,869,302
1) Water usage rates referenced from <i>Appendix B: Estimated Water Use of Specified Land Use</i> from Napa County WAA-Guidance Document (2015) unless noted otherwise 2) Fans are used for frost protection 3) Existing recycled water credit from drip irrigation onsite vineyards; refer to the Onsite Wastewater Feasibility Study prepared by Bartelt Engineering for more information 4) Winery water use is averaged from data provided by Cakebread Cellars from 2015 through 2018		

## Cakebread Cellars Winery Proposed Water Demand Table II



**Winery Production Limit:**  
**Vineyard Area:**

**800,000 gallons/year**  
**20 acres**

<b>PROPOSED WATER DEMAND</b>		
Description	Water Usage Rate <sup>1</sup>	Water Demand (acre-feet/year)
<u>Residential</u>		
Primary Residence	0.75 acre-feet/acre-year	-
Secondary Residence or Farm Labor Dwelling	0.2-0.3 acre-feet/acre-year	-
<u>Agricultural</u>		
Vineyards		
Irrigation Only	0.50 acre-feet/acre-year	10.00
Heat Protection	0.25 acre-feet/acre-year	5.00
Frost Protection <sup>2</sup>	0.25 acre-feet/acre-year	-
Irrigated Pastures	4.0 acre-feet/acre-year	-
Orchards	4.0 acre-feet/acre-year	-
Livestock (sheep or cows)	0.01 acre-feet/acre-year	-
<u>Winery</u> <sup>4</sup>		
Process Water	2.95 acre-feet/100,000 gallon of wine	23.60
Domestic & Landscaping	0.50 acre-feet/100,000 gallon of wine	4.00
Employees	15 gallons/per shift	-
Tasting Room Visitation	3 gallons per visitor	-
Events and Marketing, with on-site catering	15 gallons per visitor	-
<u>Industrial</u>		
Food Processing	31 acre-feet/employee-year	-
Printing/Publishing	0.60 acre-feet/employee-year	-
<u>Commercial</u>		
Office Space	0.01 acre-feet/employee-year	-
Warehouse	0.05 acre-feet/employee-year	-
<i>Total Proposed Water Demand (acre-feet/year):</i>		42.60
<i>Recycled Water Credit From Treated Process Wastewater (acre-feet/year)<sup>3</sup>:</i>		-20.30
<i>Estimated Proposed Water Demand (acre-feet/year):</i>		22.30
<i>Estimated Proposed Water Demand (gallons/year):</i>		7,266,477
<p>1) Water usage rates referenced from <i>Appendix B: Estimated Water Use of Specified Land Use</i> from Napa County WAA-Guidance Document (2015) unless noted otherwise</p> <p>2) Fans are used for frost protection</p> <p>3) Existing recycled water credit from drip irrigation onsite vineyards; refer to the Onsite Wastewater Feasibility Study prepared by Bartelt Engineering for more information</p> <p>4) Winery water use is averaged from data provided by Cakebread Cellars from 2015 through 2018</p>		

TECHNICAL, MANAGERIAL, AND FINANCIAL  
CAPACITY WORKSHEET FOR  
CAKEBREAD CELLARS WINERY  
8300 ST. HELENA HIGHWAY  
RUTHERFORD, CA  
APN 031-010-011

Prepared For:

Cakebread Home Ranch, LP  
c/o Mike Jaeger  
P.O. Box 216  
Rutherford, CA 94573

Prepared By:

Bartelt Engineering  
1303 Jefferson Street, 200 B  
Napa, CA 94559  
(707) 258-1301

Paul Bartelt, P.E.  
Principal Engineer

Richard Paxton, P.E.  
Project Engineer



January 2020  
Job No. 98-62

**BARTELT**  
**ENGINEERING**

**TECHNICAL, MANAGERIAL AND FINANCIAL CAPACITY WORKSHEET FOR  
 CAKEBREAD CELLARS WINERY  
 8300 ST. HELENA HIGHWAY, RUTHERFORD, CA  
 APN 031-010-011**

As required by Napa County Planning, Building & Environmental Services (PBES), the following Technical, Managerial and Financial (TMF) Capacity Worksheet outlines the potential requirements associated with modifying the existing public water system that serves the subject parcel located at 8300 St. Helena Highway, Rutherford, CA 94573.

**PROJECT DESCRIPTION**

It is our understanding that Cakebread Cellars Winery (made up of the Rutherford Winery facility and the Oakville Winery facility, collectively referred to as “the winery”) is proposing to increase the wine production limit from 500,000 gallons per year to 800,000 gallons per year and the number of employees from 77 to 120. This TMF Capacity Worksheet describes the proposed changes to the permitted non-transient non-community (NTNC) public water system which includes an increase in water demand.

**WATER SYSTEM OVERVIEW**

<b>TABLE 1: WATER SYSTEM OVERVIEW</b>	
Water System Name	Cakebread Cellars Winery
Location/Address	8300 St. Helena Highway, Rutherford, CA APN 031-010-011
Application Type	Amendment to permitted system (if required)
Water System ID	28-01075
Water System Classification	Non-transient Non-community (NTNC)
Name of Person(s) Who Prepared the Report	Richard Paxton, P.E. Project Engineer Bartelt Engineering
Water Source	Well 001 (River Well, aka Glos Lane) & Well 003 (Oakville Well, aka Evensen)

**TECHNICAL CAPACITY**

**System Description**

Raw water is pumped from the winery’s wells through sediment filters in a parallel configuration for removal of particulates from the water stream. Filtered water then passes through water softeners and flow meters before being temporarily collected and stored in six (6) 10,000 gallon storage tanks; four (4) of the tanks are located at the Rutherford

Winery facility and the remaining two (2) tanks are located at the Oakville Winery facility. The well pumps are controlled on a demand basis through several float switches located in the storage tanks. Stored water is pumped from the storage tanks by distribution pumps to various points throughout the winery buildings and hospitality areas. Pressure tanks are located downstream of the distribution pumps. The distribution pumps operate based on a set pressure level of 60 pounds per square inch (psi). Three (3) UV disinfection systems (each with a rated capacity of 40 gpm) are also provided for disinfection prior to use in the winery and hospitality areas.

### **One Year Projection**

Based on the proposed wine production capacity, staffing plan, and existing marketing plan as well as the vineyard/landscape irrigation, the total annual water demand from the primary well is expected to increase to a total estimated demand of 9 million gallons per year. The average water usage flow rate from all sources (domestic, process, and irrigation) is estimated to be 24,600 gallons per day (gpd) or 17 gallons per minute (gpm). Refer to the Water Availability Analysis prepared by Bartelt Engineering for information on annual water usage and the Onsite Wastewater Dispersal Feasibility Study prepared by Bartelt Engineering for information on peak daily domestic and process water usage.

The water system service area will now include the recently constructed "North Addition", water demand is expected to increase with an increase in wine production, and the number of users are expected to increase from 77 employees to 120 employees over the next several years.

### **SOURCE ADEQUACY**

#### **Groundwater**

The River Well (Well 001) was drilled in 1991. The Oakville Well (Well 003) was drilled in 1998. Well Completion Logs were not available at the time this TMF was written.

#### **Surface Water Treatment**

The water system will continue to be sourced from the existing groundwater wells. Surface water is not used and therefore, surface water treatment is not included as part of the public water system.

#### **Existing Water Supply Capacity**

Water supply capacity is based on the Maximum Day Demand (MDD) and the Peak Hourly Demand (PHD) as described in the Water Works Standards Section 64554 New and Existing Source Capacity. Fire protection and irrigation water are excluded from the water supply capacity requirements.

The water use at the winery is based on the enclosed graphs of historical data provided by Cakebread Cellars. Cakebread Cellars has been monitoring and collecting flow data on the amount of water that is used at each of the winery facilities. The data collected and

used for this study spans from January 2019 through December 2019. The data referenced for this study is presented in graphical exhibits attached to this worksheet.

Maximum Daily Demand (Existing)

The data indicates that the MDD occurs during the month of September. The MDD for the Rutherford Winery facility occurred on September 25, 2019 with a recorded demand of 17,490 gallons. The MDD for the Oakville Winery facility occurred on September 30, 2019 with a recorded demand of 27,370 gallons.

Peak Hourly Demand (Existing)

The PHD can be calculated by multiplying the average hourly flow during MDD by a 1.5 peaking factor.

$$\text{PHD} = \frac{\text{MDD}}{\text{hours of operations}} \times (\text{peaking factor})$$

$$\text{Rutherford Winery PHD} = \frac{17,490 \text{ gallons}}{18 \text{ hours}} \times (1.5) = 1,457 \text{ gph}$$

$$\text{Oakville Winery PHD} = \frac{27,370 \text{ gallons}}{18 \text{ hours}} \times (1.5) = 2,280 \text{ gph}$$

However, for the MDD occurrences on September 25 and 30, 2019, Cakebread Cellars has provided an hour by hour breakdown of the water use. The recorded data indicates that the PHD for the facilities are both higher than the calculated values.

The PHD for the Rutherford Winery facility occurred on September 25, 2019 with a recorded demand of 1,650 gallons per hour. The PHD for the Oakville Winery facility occurred on September 30, 2019 with a recorded demand of 2,490 gallons per hour. The recorded data indicates that the existing water system can adequately supply the minimum required PHD. Refer to the enclosed graphs.

Maximum Daily Demand (Proposed)

The proposed increase in wine production is expected to be distributed equally between the two (2) facilities. The proposed percentage increase in production can be calculated using the following equation:

$$\text{Percent Increase} = \frac{\text{Final Volume} - \text{Initial Volume}}{|\text{Initial Volume}|} \times 100$$

$$\text{Percent Increase} = \frac{800,000 \text{ gal} - 500,000 \text{ gal}}{|500,000 \text{ gal}|} \times 100 = 60\%$$

Based on a 30% increase in water use at each of the facilities, the proposed MDD for each facility can be calculated using the existing MDD and the following equation:

$$\text{Rutherford Winery MDD} = 17,490 \text{ gal} \times 1.30 = 22,737 \text{ gallons}$$

$$\text{Oakville Winery MDD} = 27,370 \text{ gal} \times 1.30 = 35,581 \text{ gallons}$$

#### Peak Hourly Demand (Proposed)

The proposed PHD can be calculated by multiplying the average hourly flow during MDD by a 1.5 peaking factor.

$$\text{PHD} = \frac{\text{MDD}}{\text{hours of operations}} \times (\text{peaking factor})$$

$$\text{Rutherford Winery PHD} = \frac{22,737 \text{ gallons}}{18 \text{ hours}} \times (1.5) = 1,895 \text{ gph}$$

$$\text{Oakville Winery PHD} = \frac{35,581 \text{ gallons}}{18 \text{ hours}} \times (1.5) = 2,965 \text{ gph}$$

Based on the water use data provided by Cakebread Cellars and the proposed increase in wine production; the existing water storage capacity of 40,000 gallons at the Rutherford Winery facility has sufficient capacity to satisfy the MDD storage requirements.

Based on the water use data provided by Cakebread Cellars and the proposed increase in wine production; the calculated MDD for the Oakville Winery facility is estimated to be higher than the existing water storage capacity. However, the water system has proven to have sufficient flow to provide for the demand requirements. In addition to the wells and existing storage tanks at the Oakville Winery facility, Cakebread Cellars has an existing water service connection with the City of Napa that has been in use since the mid-1970s.

Water from the City of Napa is only utilized in an emergency when water from the onsite wells is inaccessible. Per California Code of Regulations, Title 22, Chapter 16, California Waterworks Standards, Section 64554 (a,2) an additional source of supply or an emergency source connection can be utilized to meet the MDD requirements.

In the event of an emergency situation that might result in the onsite wells becoming inaccessible and water storage becomes an issue, water use for wine production will be decreased to a minimum and all remaining available water will be dedicated for domestic use until the water system can reinitialized.

While not required by the MDD regulations, as a precautionary measure against future water use requirements, Cakebread Cellars is proposing to be approved the right, but not the obligation, to install up to two (2) additional 10,000 gallon water storage tanks for the Oakville Winery facility and two (2) additional 10,000 gallon water storage tanks for the

Rutherford Winery facility if and when Cakebread Cellars determines that additional domestic water storage is required to provide adequate water storage to accommodate any future increase in water demand.

### **Water Quality**

Water quality results from the existing groundwater wells were analyzed as part of the permitting process for the public water system. Ongoing chemical and bacteriological sampling is performed as part of the public water system permit. Additional water sampling is not required with the proposed modifications to the public water system permit.

### **CONSOLIDATION WITH OTHER WATER SYSTEMS**

The closest large-scale municipal water system is operated by the City of Napa. A service connection from the City of Napa water main to Cakebread Cellars has existed since the mid-1970's. Water from the City of Napa is only utilized in an emergency when water from the onsite wells is inaccessible. Cakebread Cellars intends to maintain the existing service connections and only utilize the City of Napa water in an emergency. It is anticipated that the winery's wells will continue to be utilized for all domestic and winery operations including production, hospitality, and irrigation. There is no anticipated consolidation with other (existing) water systems near the site.

### **MANAGERIAL**

#### **Organizational Ability**

The Owner of the water system is primarily responsible for reviewing and overseeing all winery financial and business decisions to ensure financial stability of the winery, in addition to allocating appropriate staffing levels and assigning responsibilities to ensure continuous water system quality. The water system will be primarily managed by the winery Facilities Manager. The Facilities Manager is responsible for managing the day-to-day operations of the winery including periodic inspection of the water system and will obtain sufficient training to inspect, operate, and maintain the water system equipment within specified parameters to meet state water quality standards; in addition, the Facilities Manager will also take groundwater samples as necessary and submit the samples to a local laboratory for testing. Approximately five percent (5%) of the Facilities Manager's time will be dedicated to inspecting, monitoring, and quality sampling of the water system.

The Facilities Manager typically performs visual inspections, routine operation, and maintenance of the water transmission and treatment system.



**Water Rights**

The existing groundwater winery wells and service area belong exclusively to the Property Owner<sup>1</sup>.

**FINANCIAL**

The NTNC public water system does not generate revenue of its own. The water system expenses are covered as part of the general fund for winery operations. Most of the capital expenditures over a 10 year period will be minor. Annual maintenance and repair will be accomplished by onsite winery personnel, assisted by a private contractor (such as Oakville Pump or North Coast Water Works) and covered in the winery general fund. The expenses associated with water testing will also be covered as part of the winery general fund. Tests will be conducted by a private testing company (such as CalTest or Brelje and Race Laboratory).

Operational costs are not anticipated to increase as part of the proposed improvements.

**CONCLUSION**

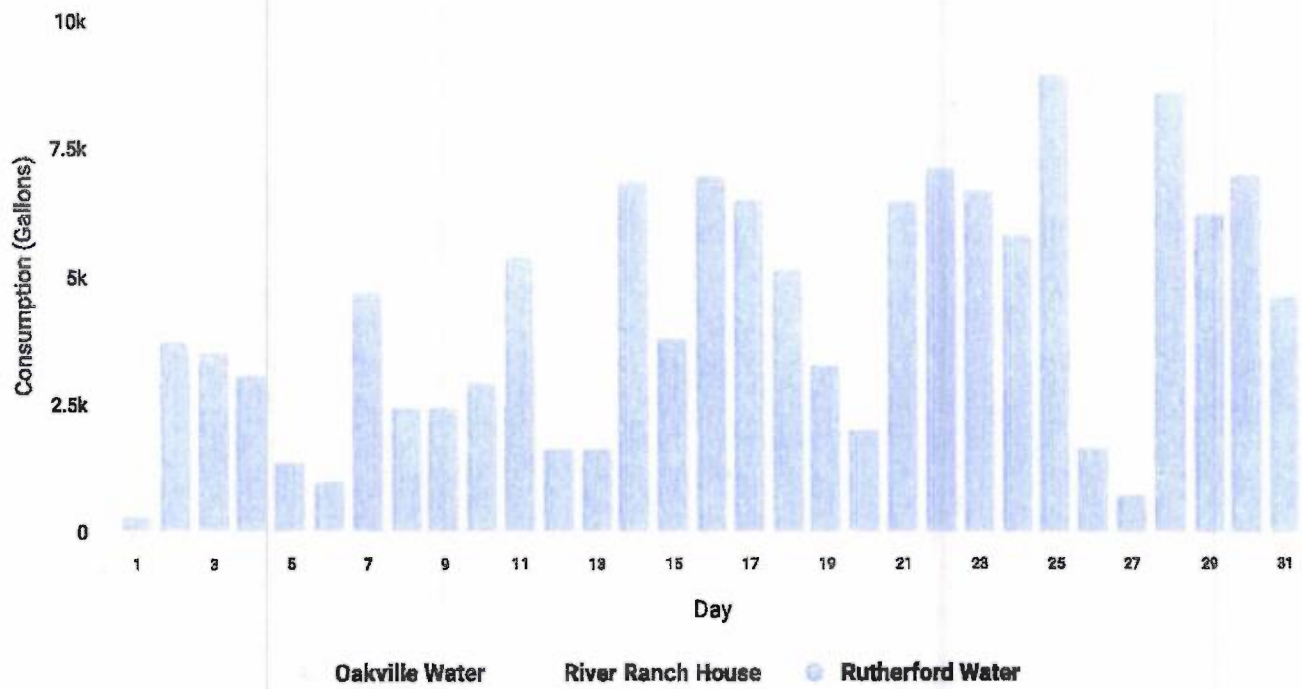
Per California Code of Regulations, Title 22, Chapter 16, California Waterworks Standards, Section 64554 (a,2) additional storage is not required by the MDD regulations based on the existing configuration and available emergency connection. The proposed project is not anticipated to impact the existing public water system but may require an expansion of the existing water tank storage capacity in the future. Any modifications to the existing water system will be included with a Public Water System Permit Amendment Application to the State of California and Napa County PBES following approval of the Use Permit Modification.

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<sup>1</sup> Refer to Water Availability Analysis prepared by Bartelt Engineering for additional information on "Water Use Easement" and "Joint Use and Cross-Easement Agreement".

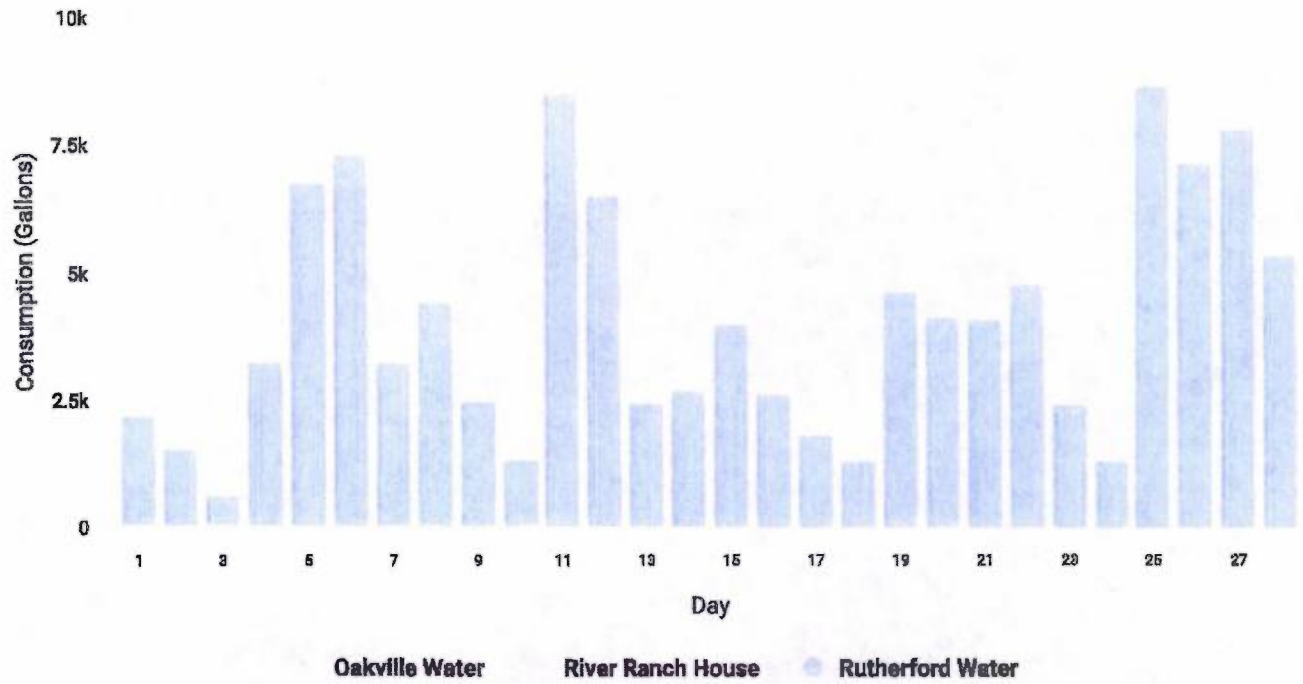
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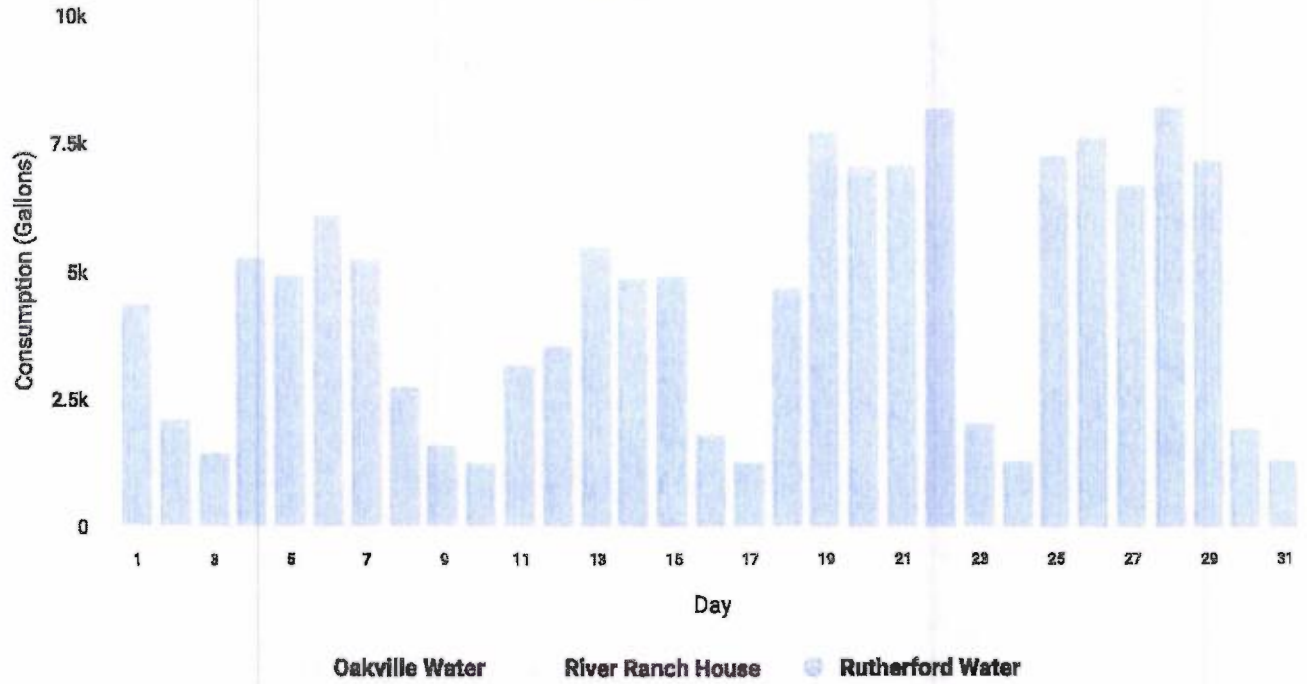
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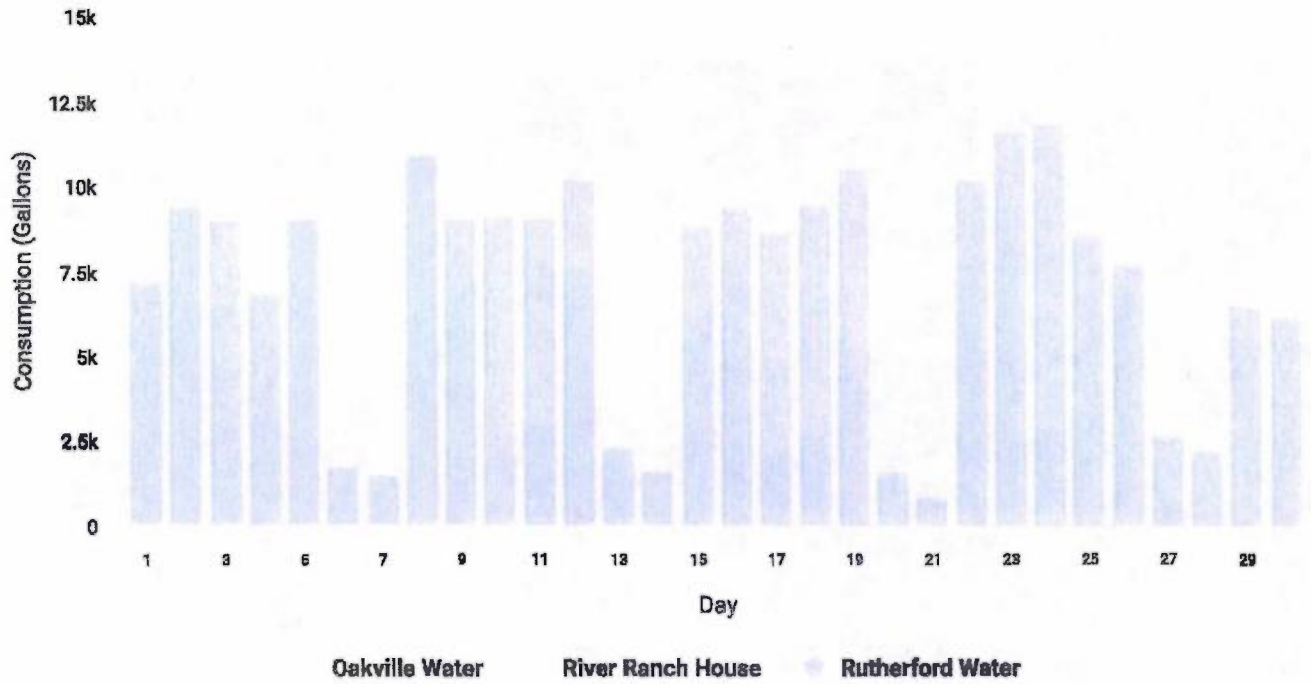
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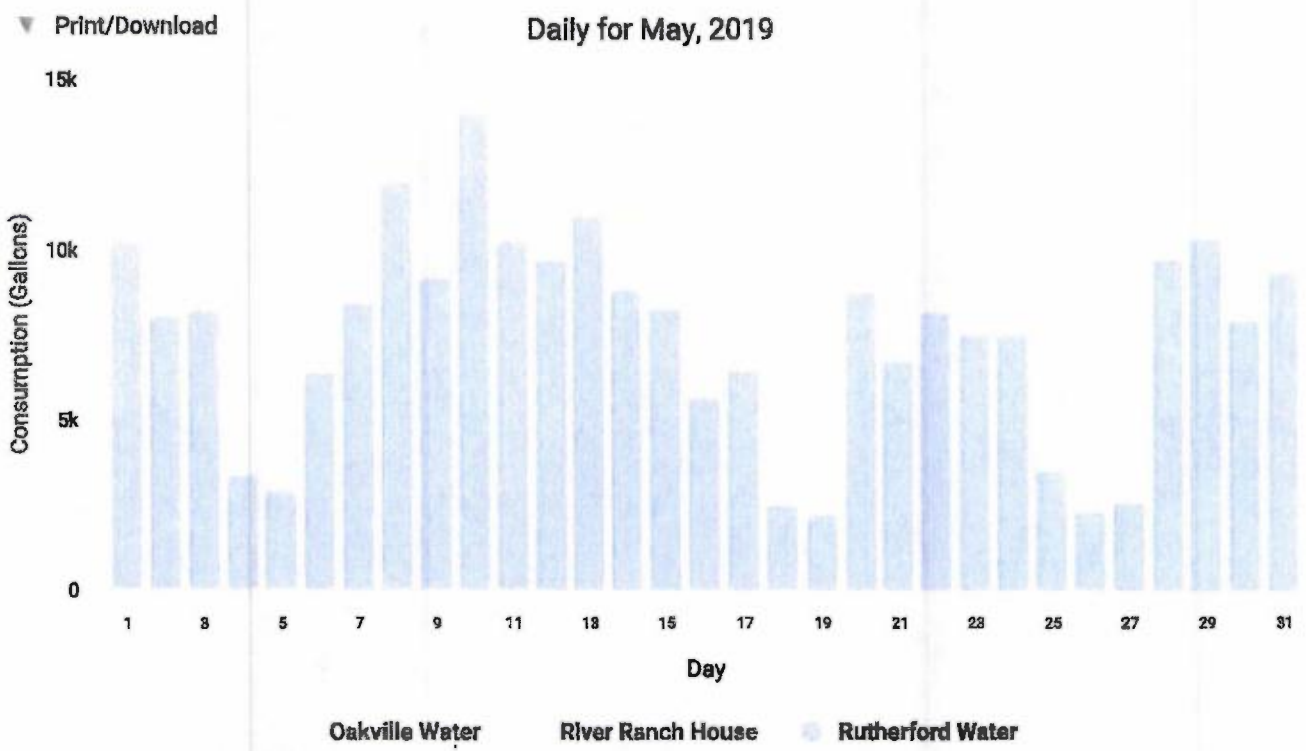
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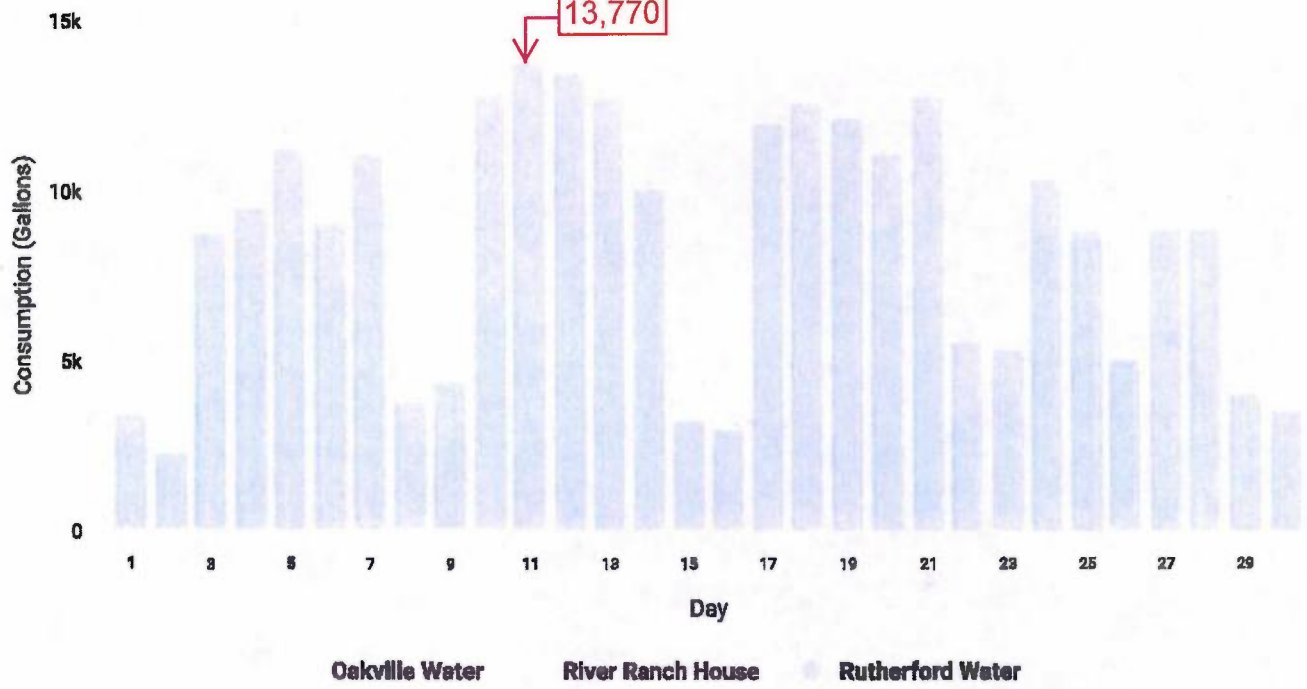
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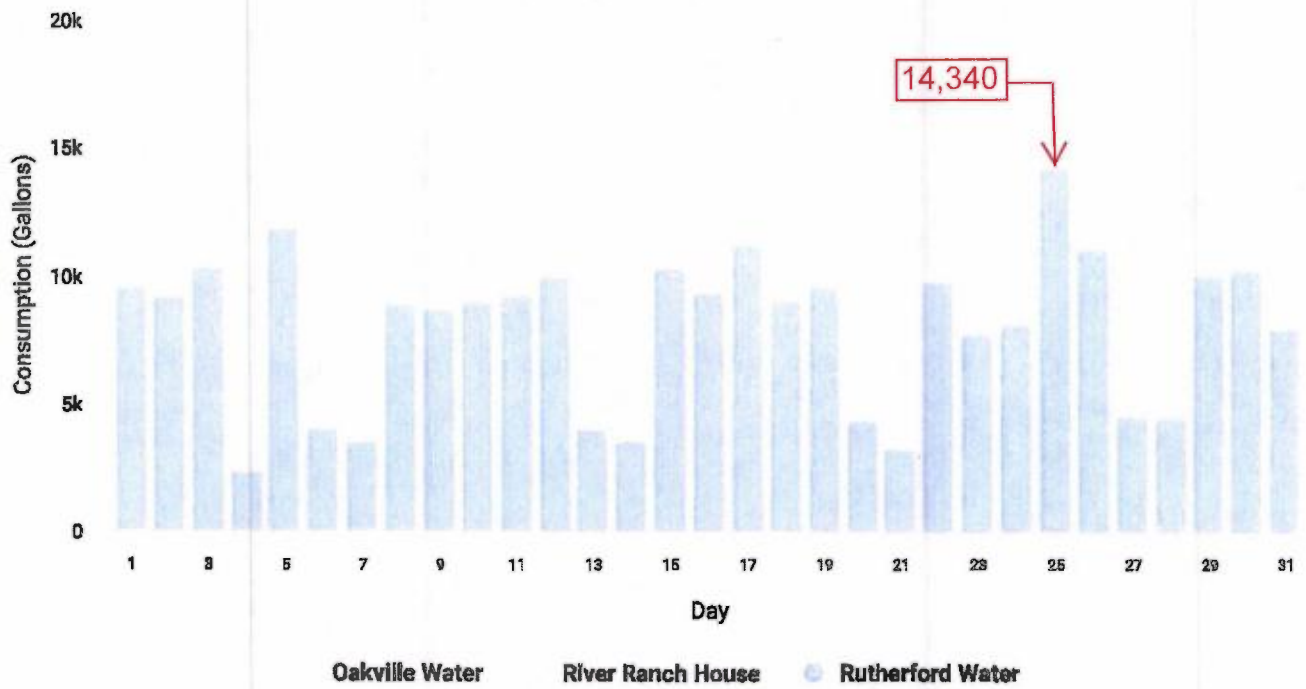
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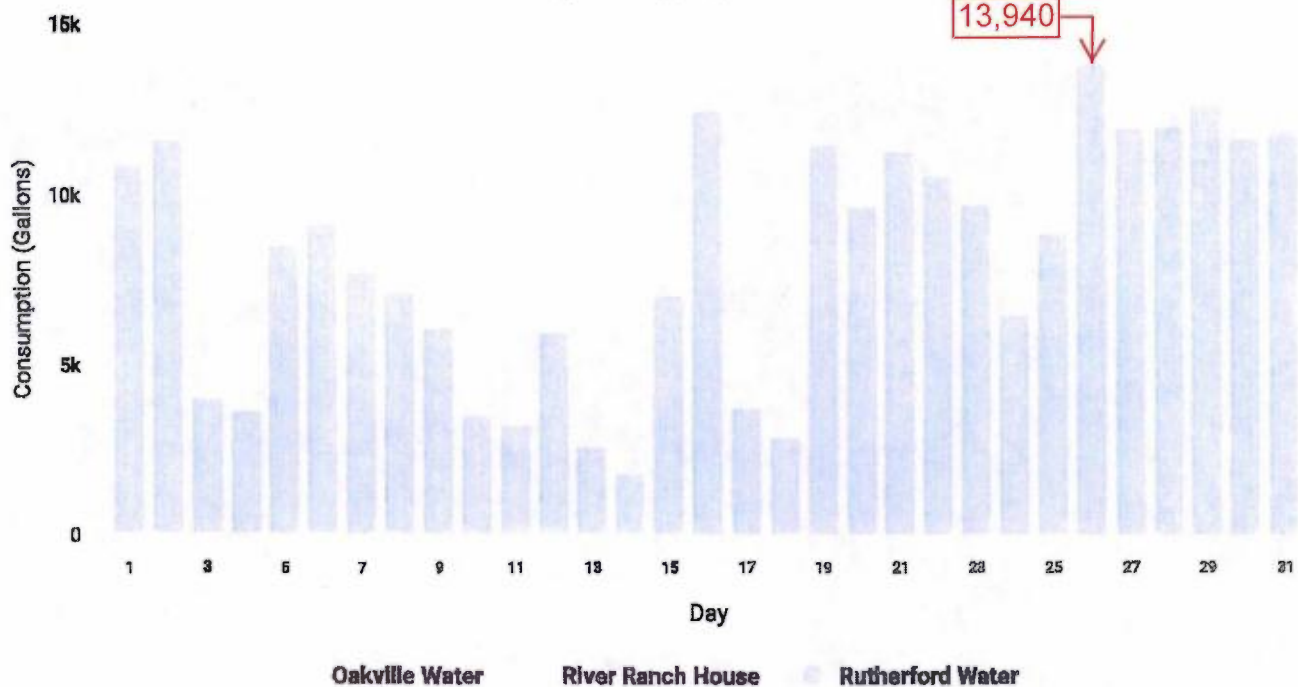
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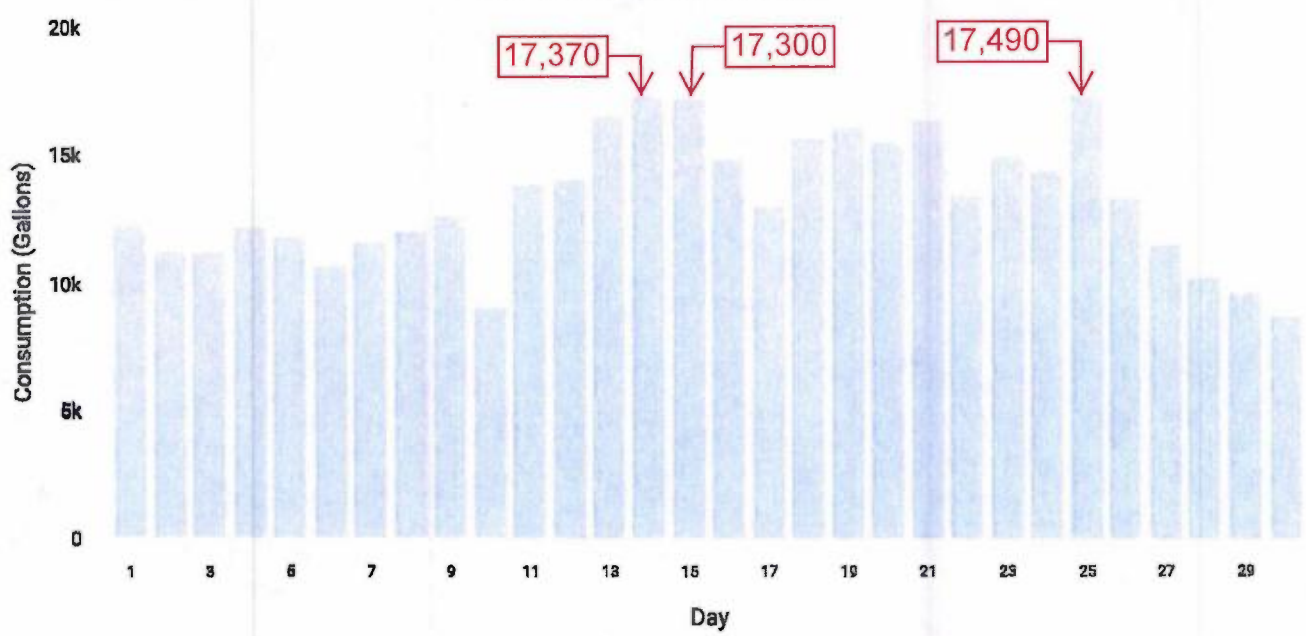
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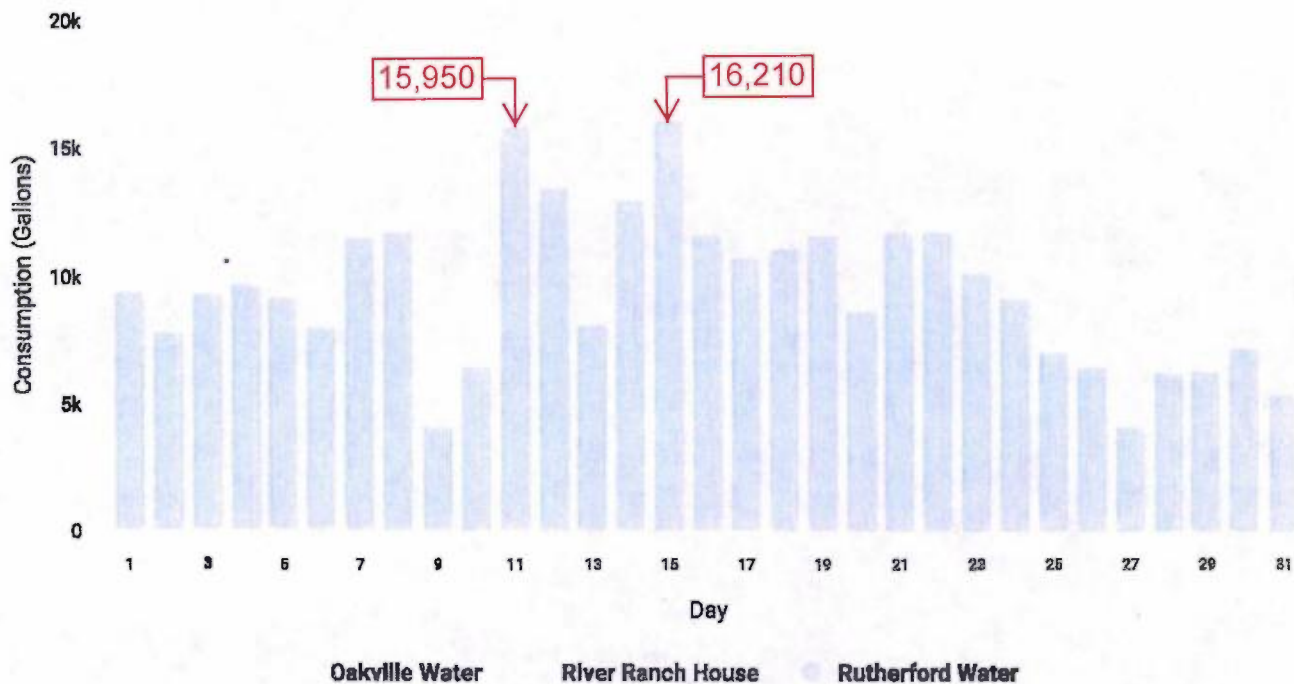
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Oakville Water      River Ranch House      Rutherford Water

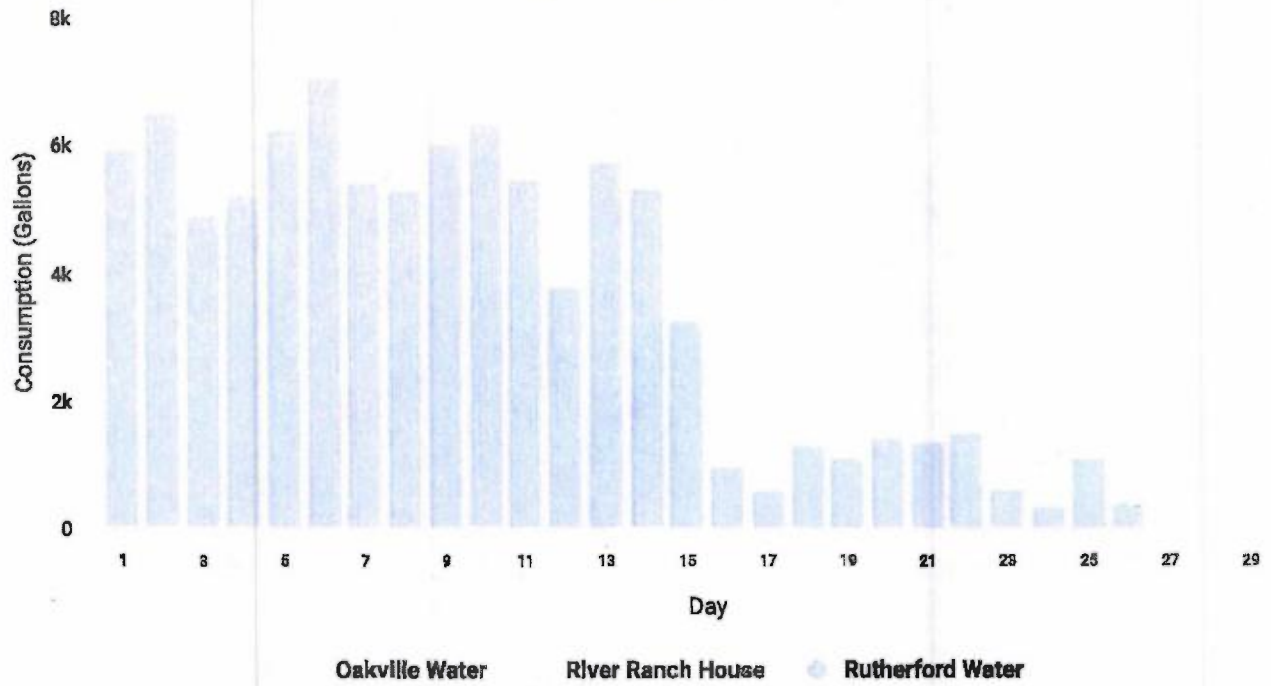
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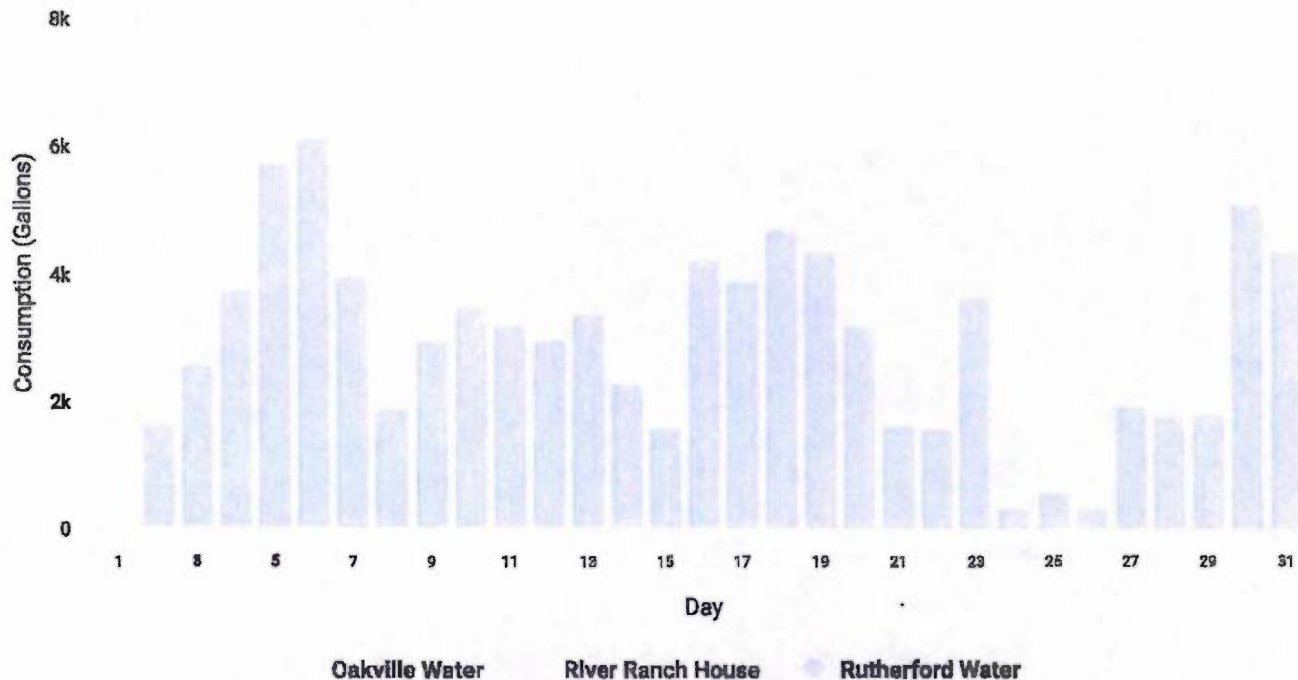
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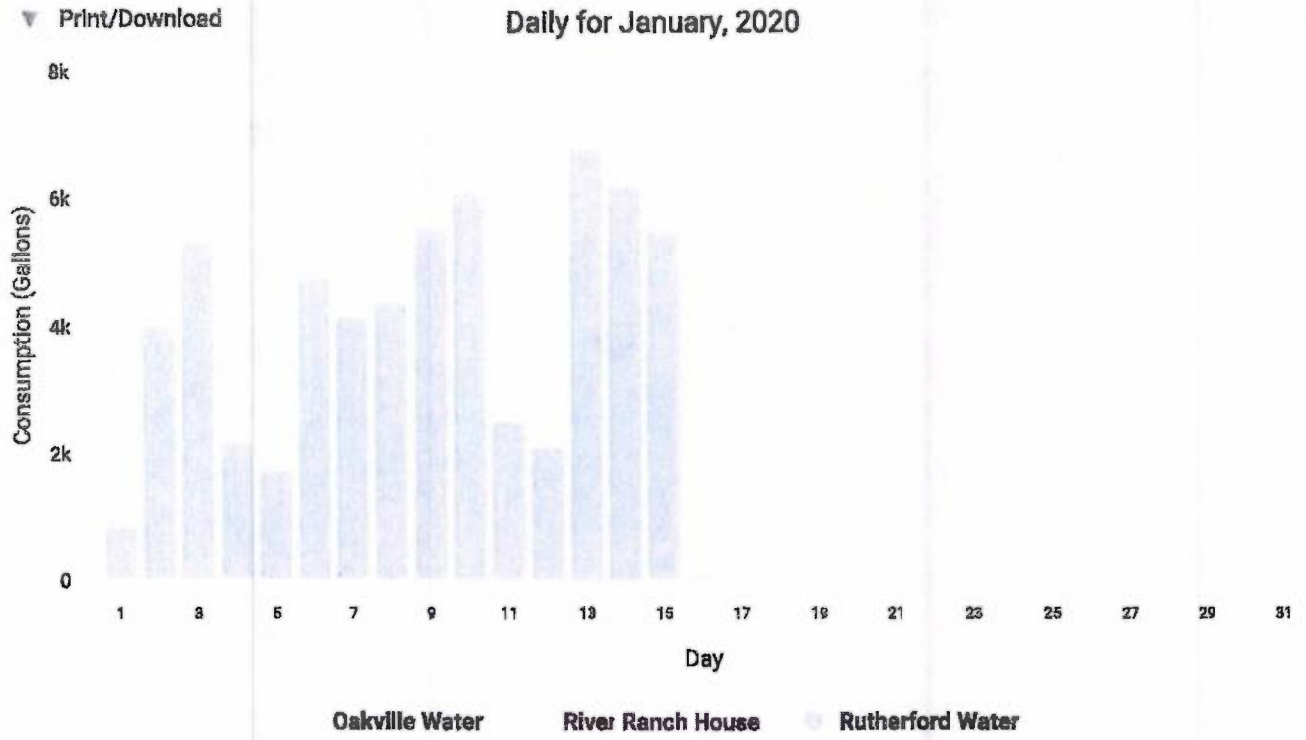
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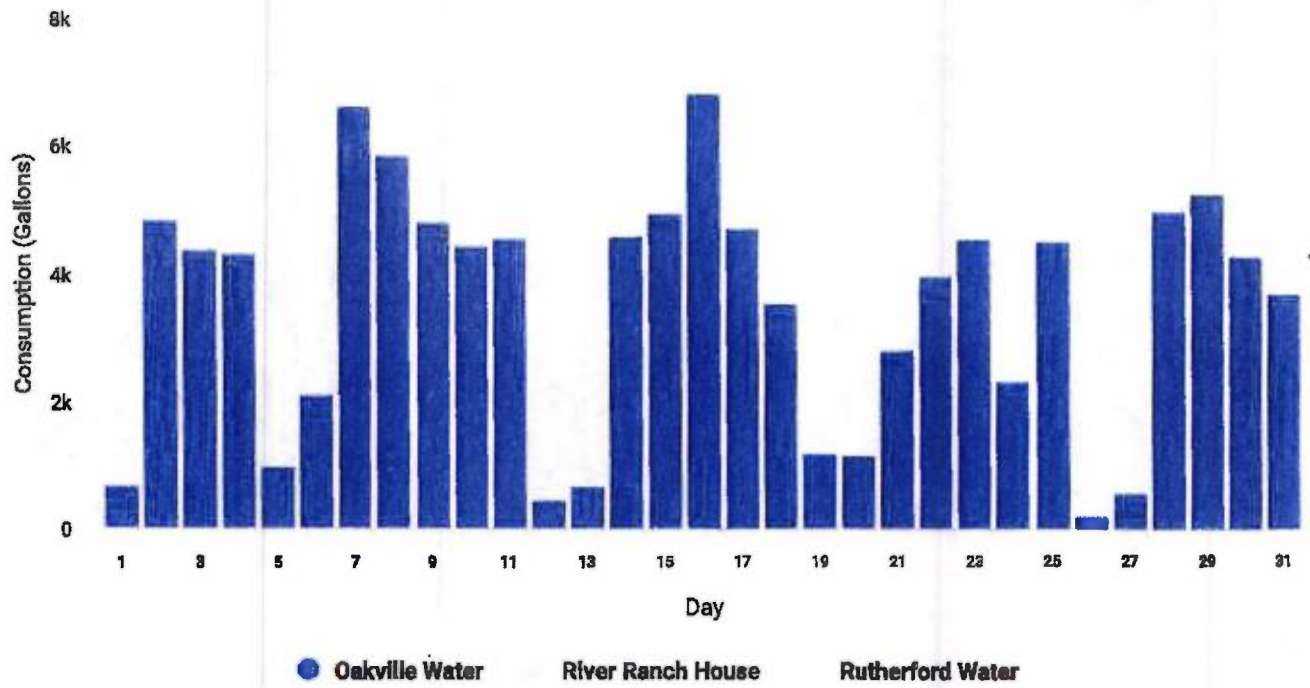
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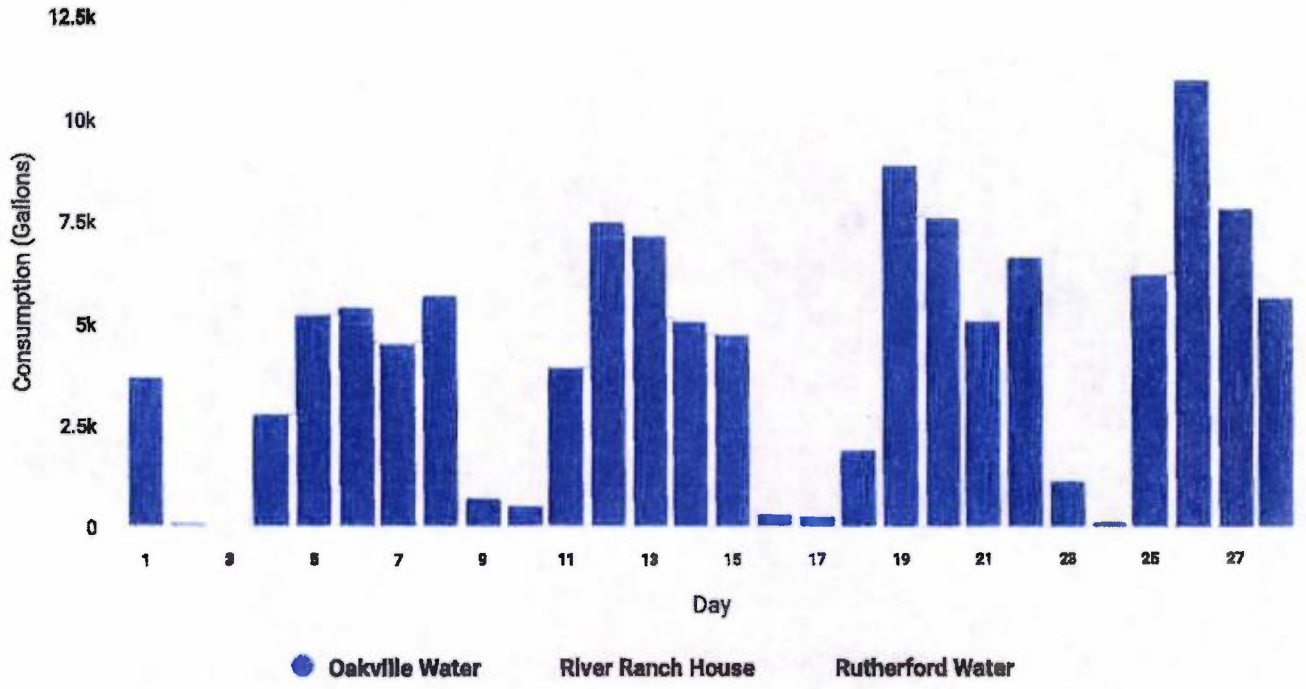
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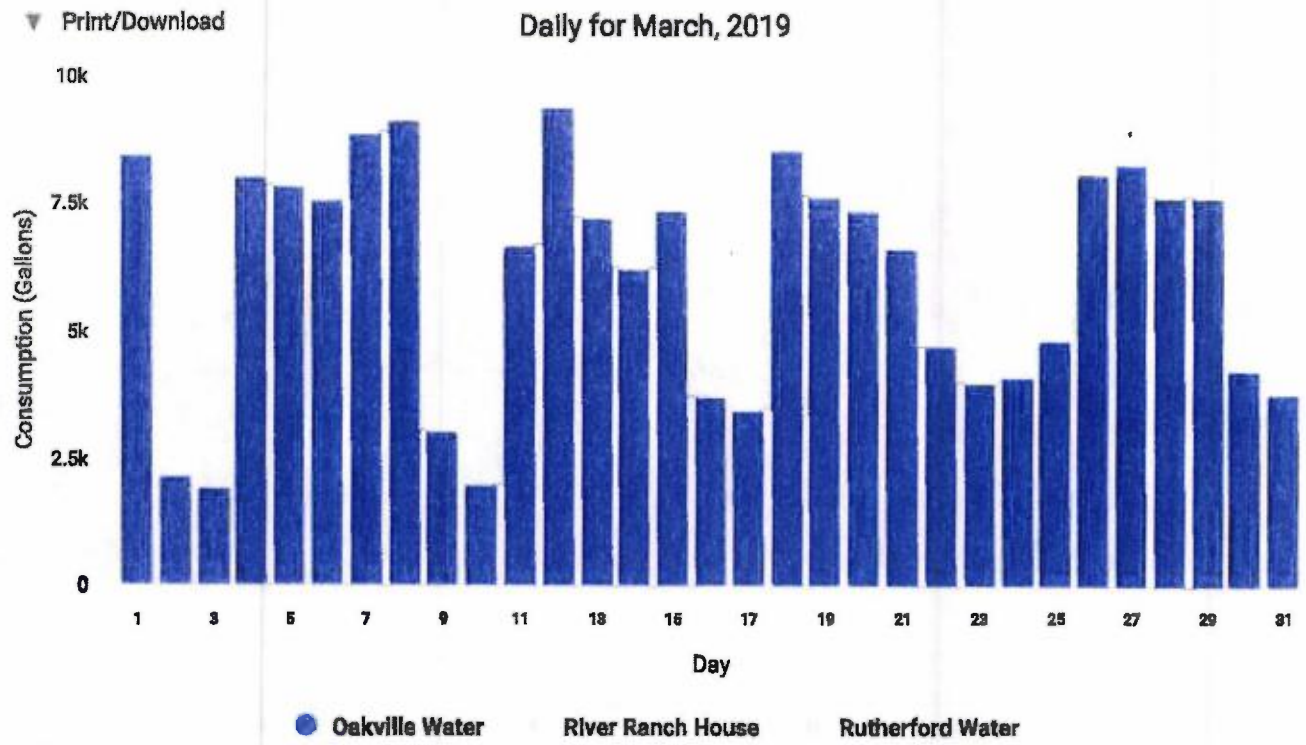


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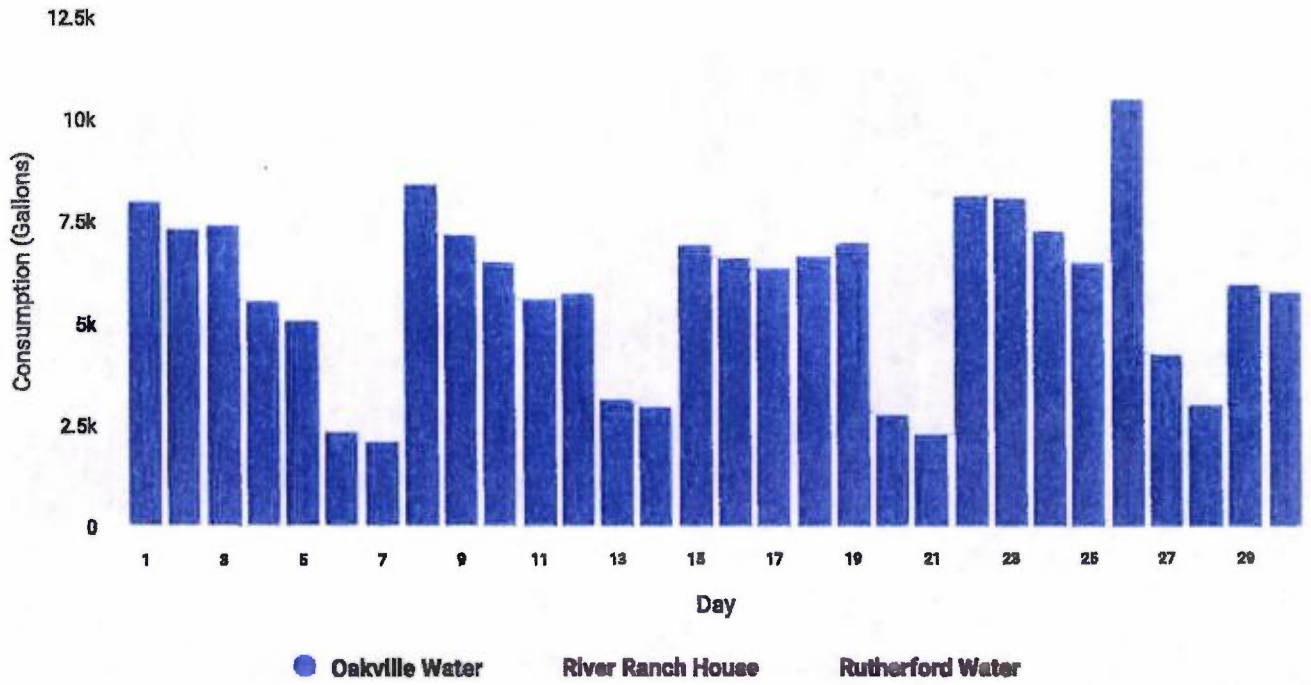






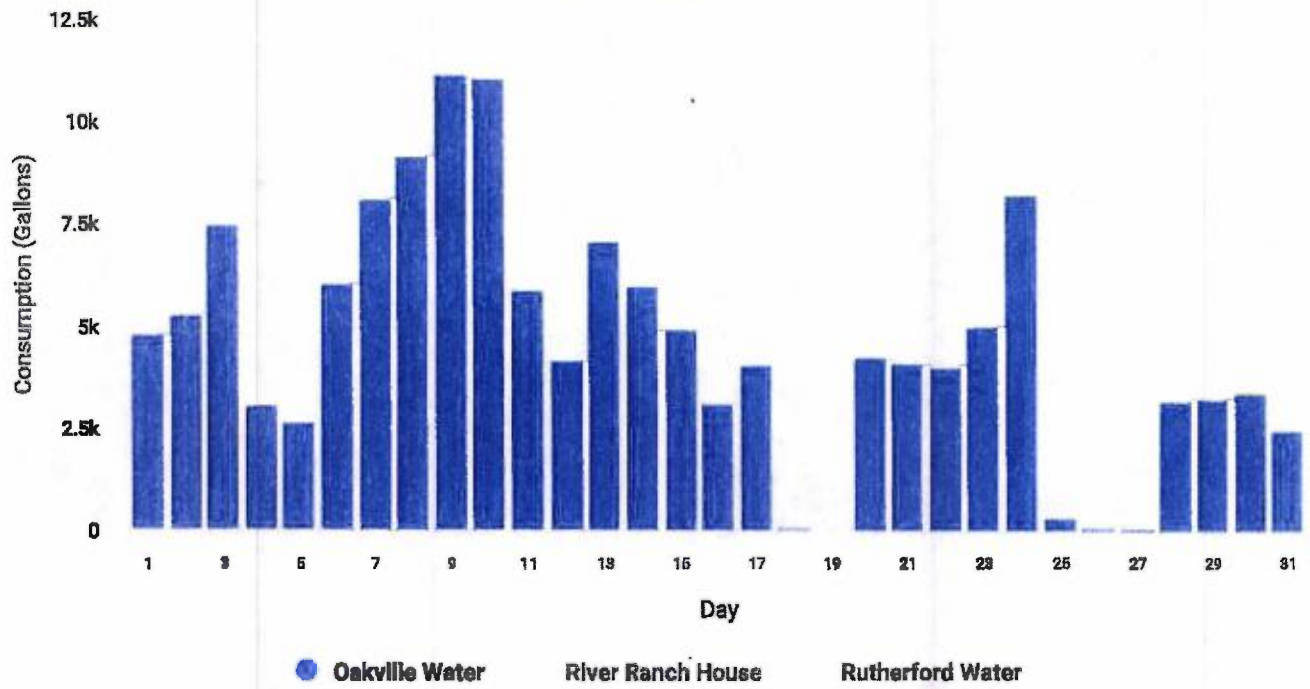
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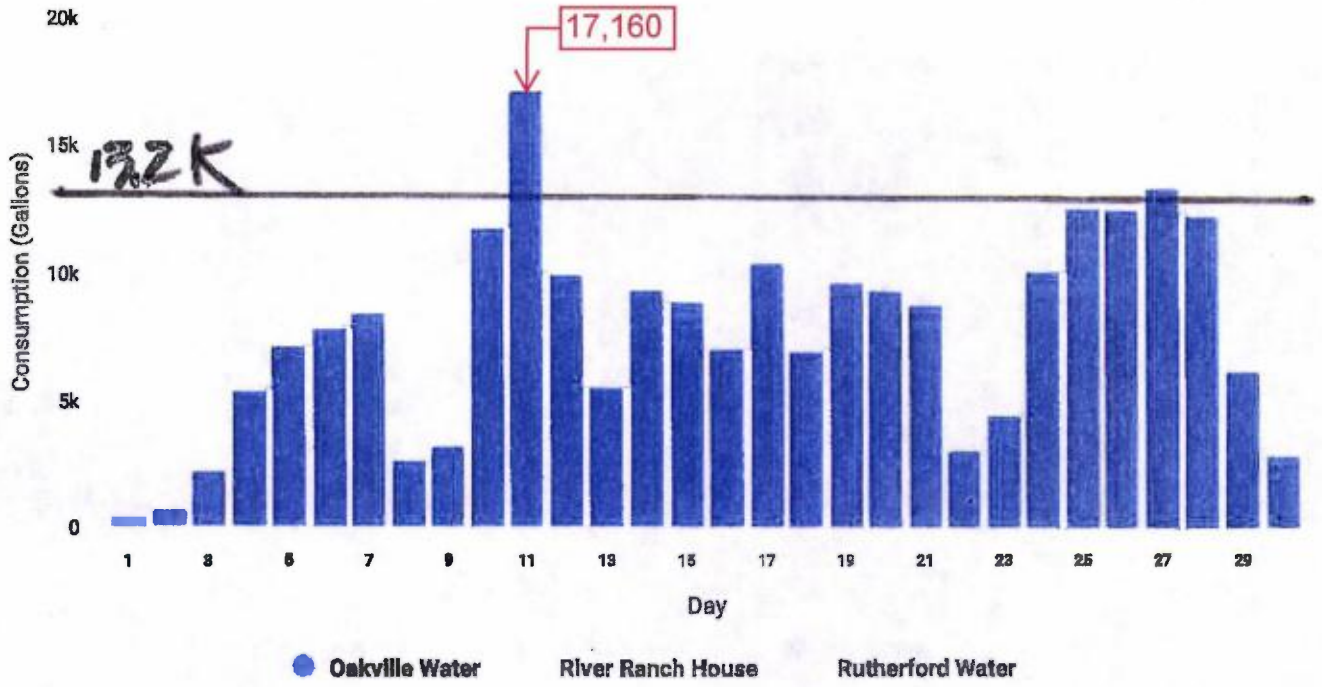
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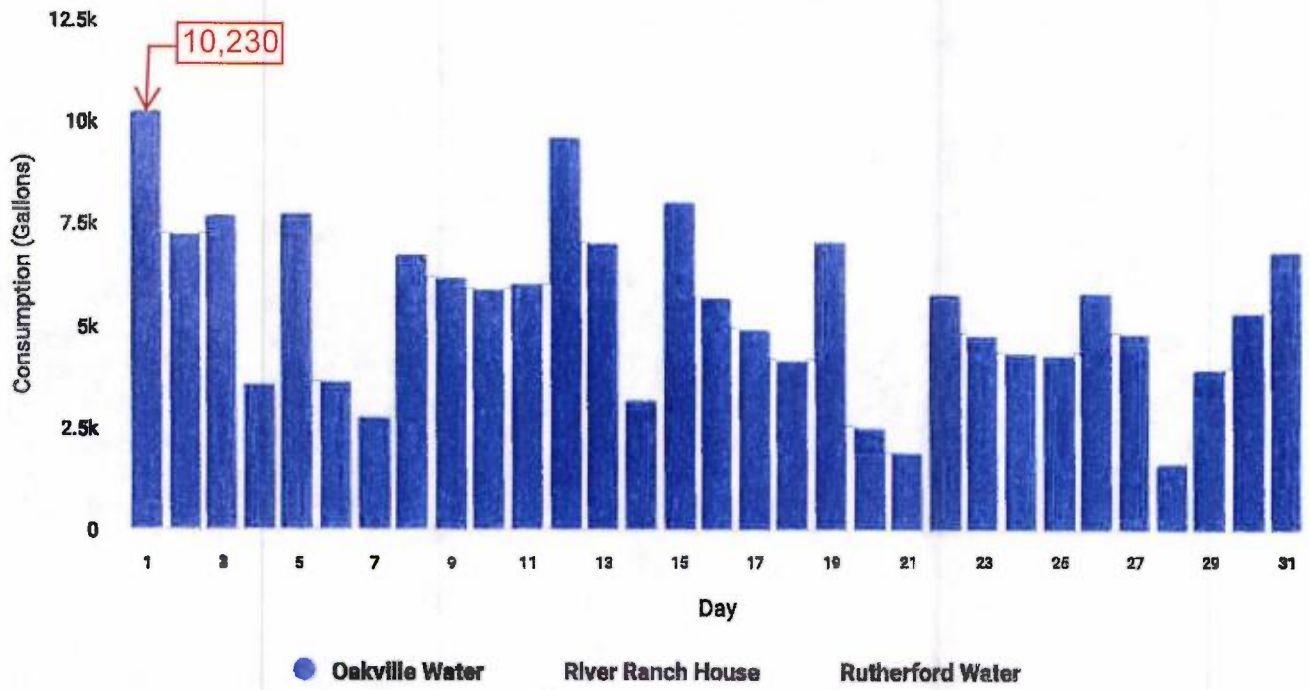
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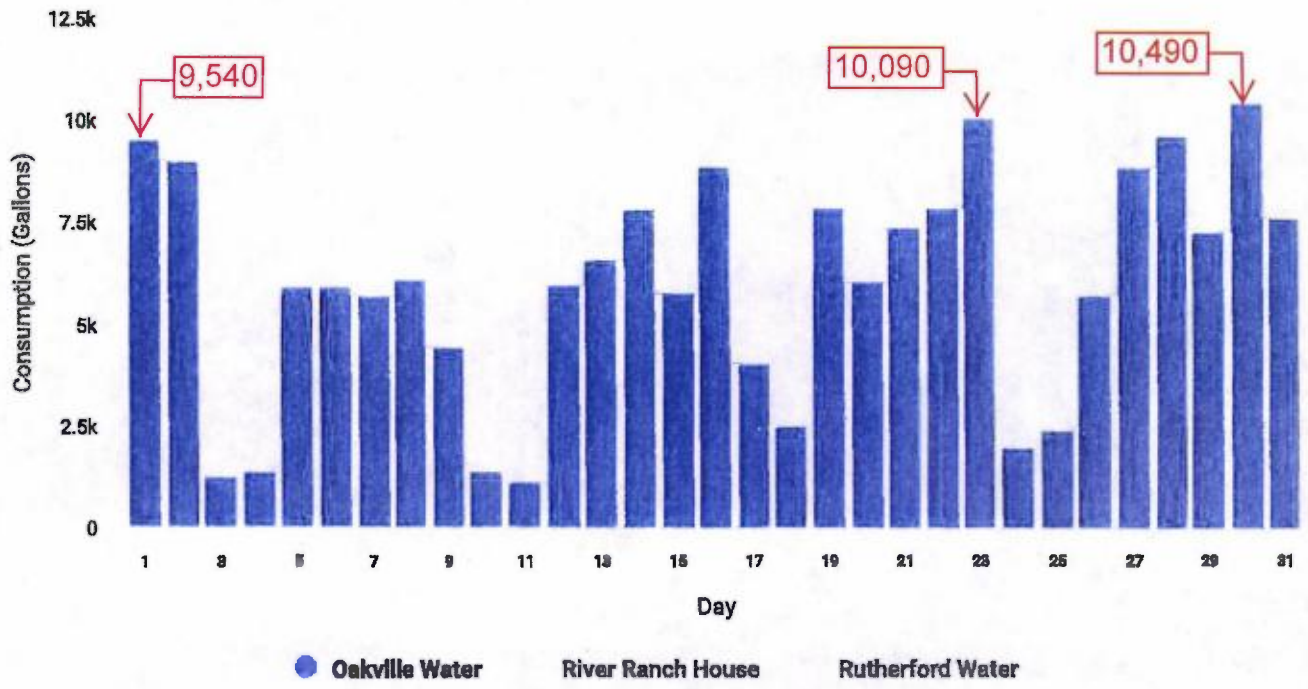
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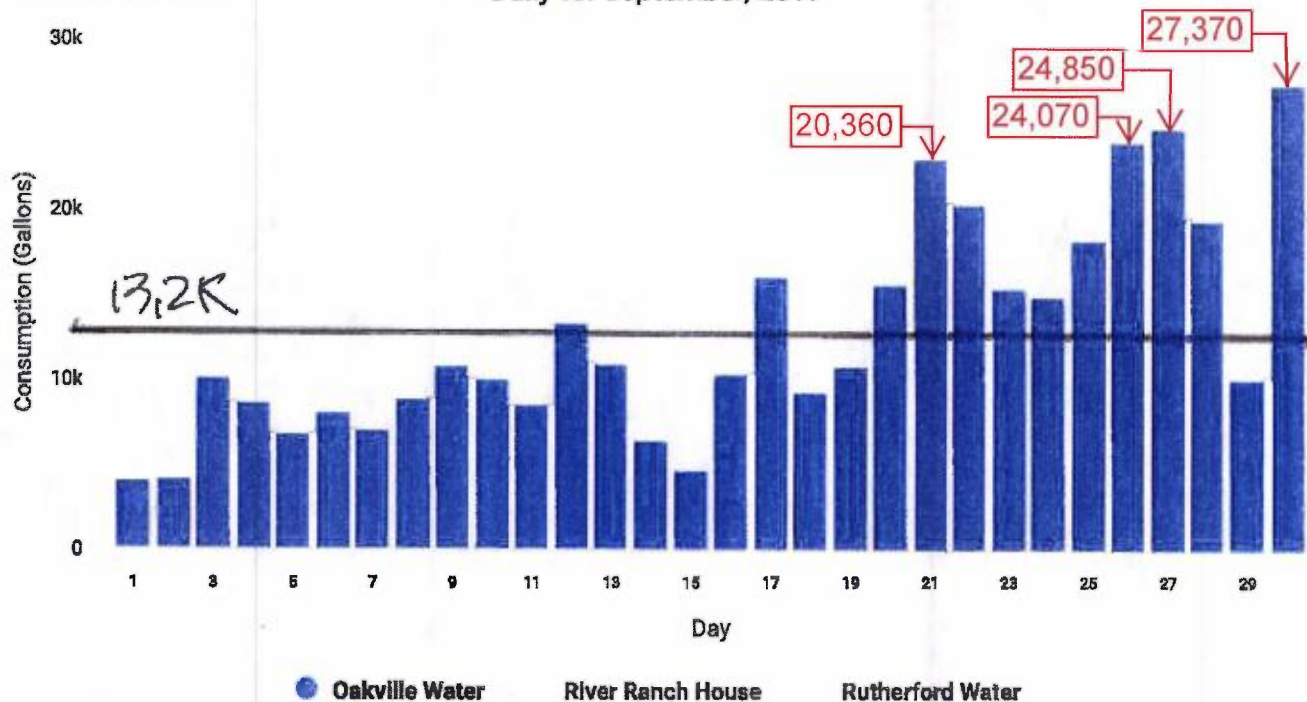
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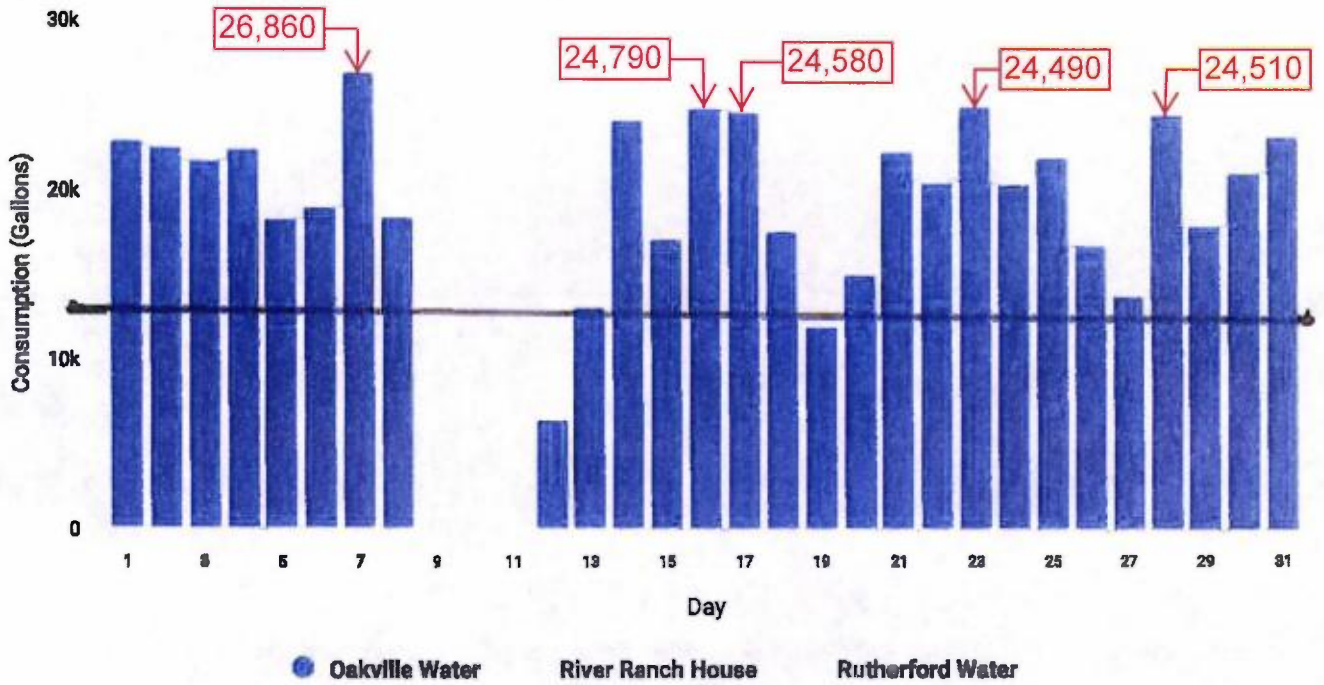
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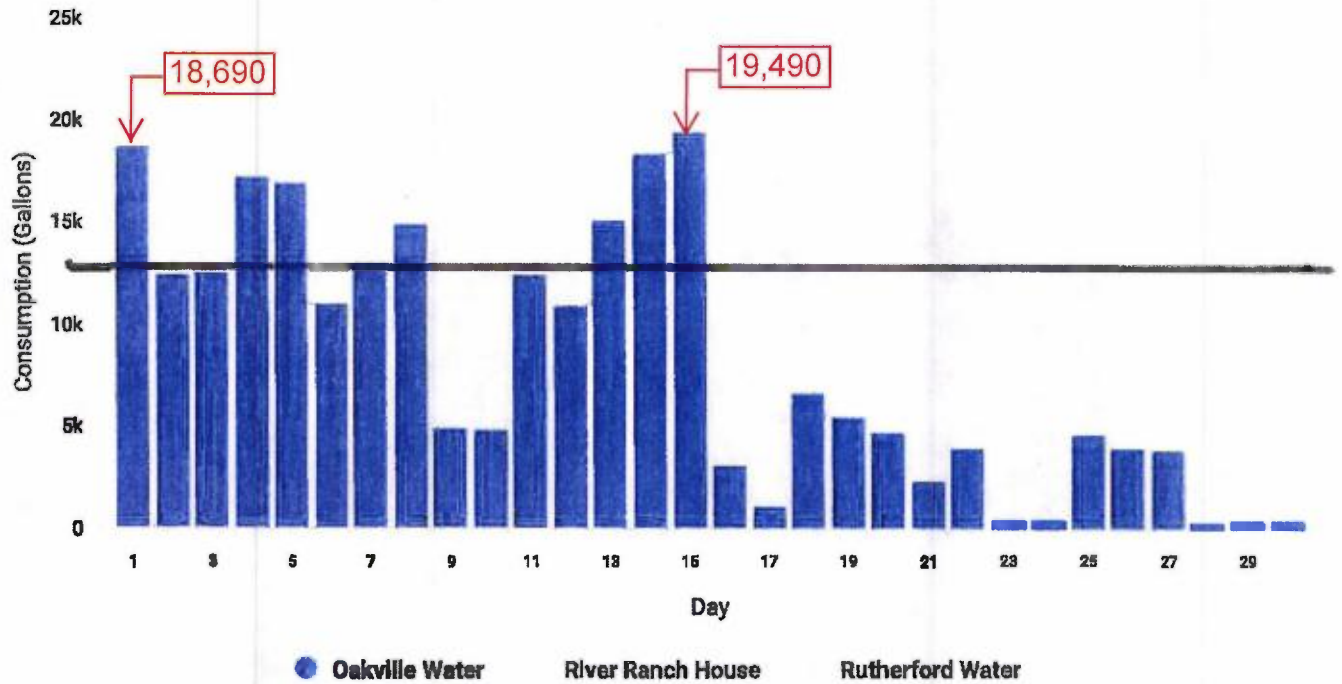
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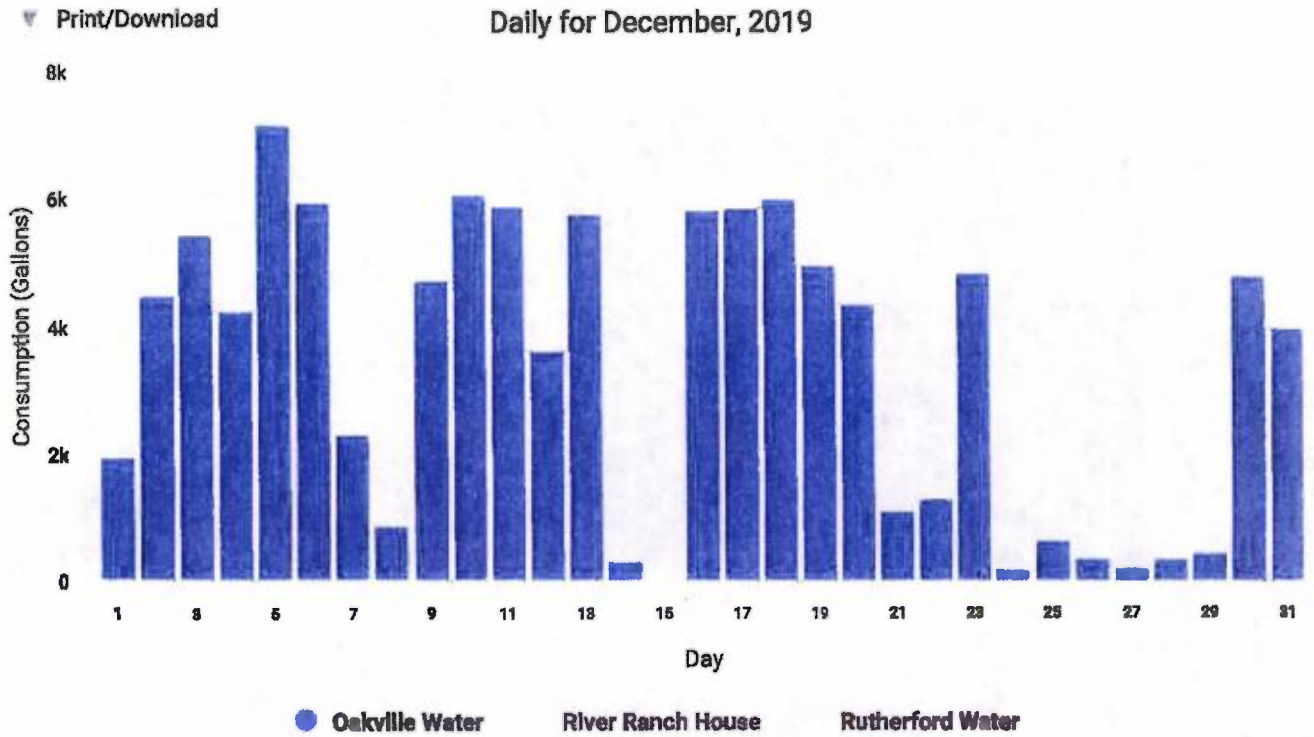


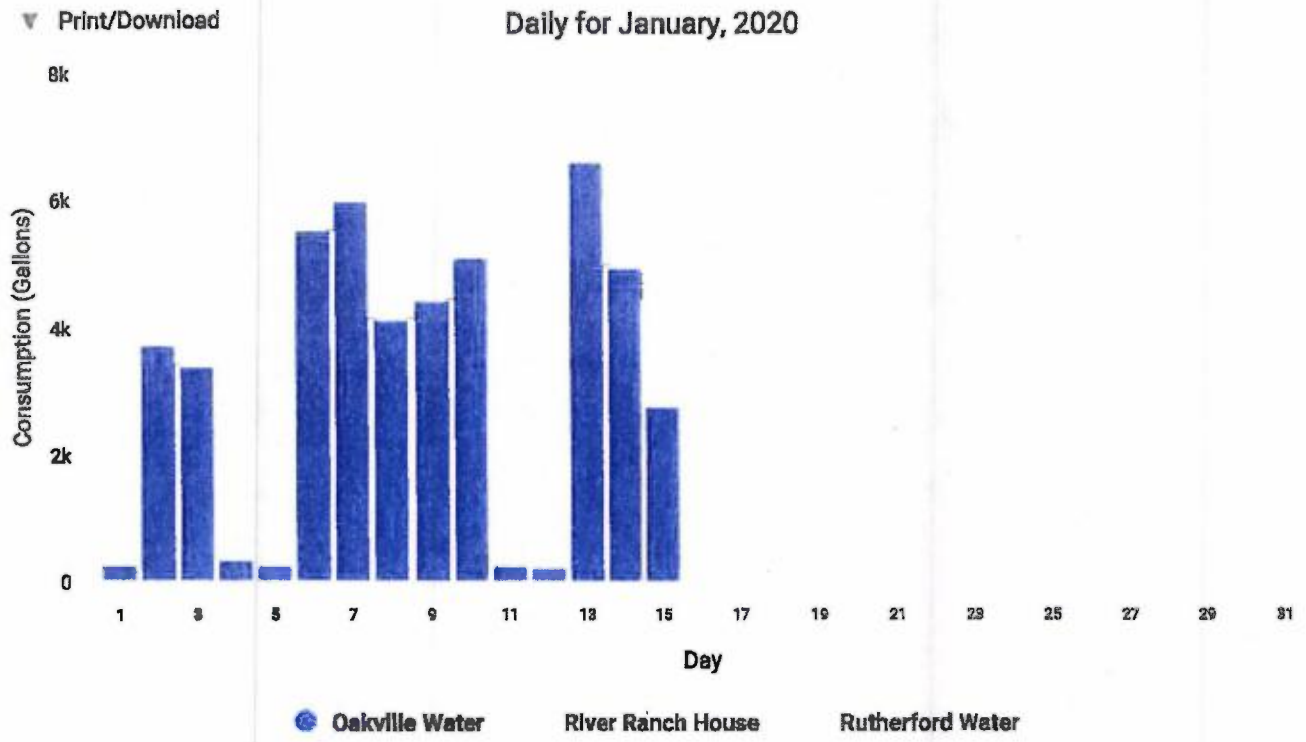


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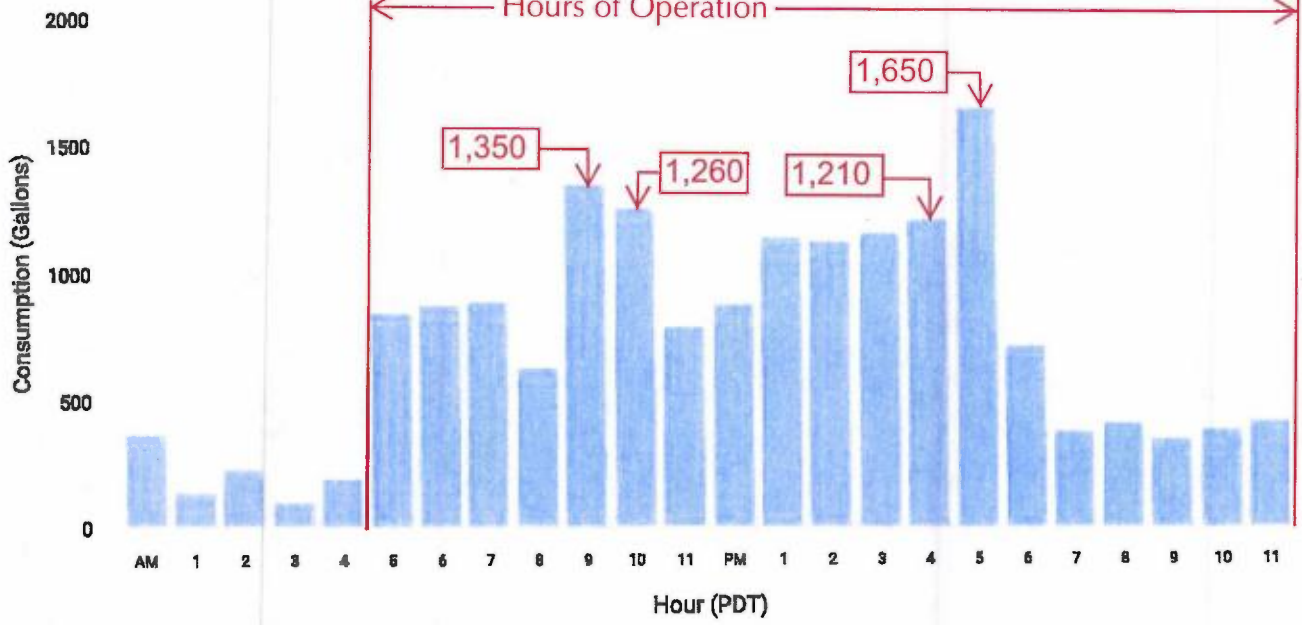






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