

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Carl R. Mills Trust for a)
Certificate of Convenience and Necessity)
Authorizing it to Install, Own, Acquire,)
Construct, Operate, Control, Manage and)
Maintain Water Systems in Carriage Oaks)
Estates)

File No. WA-2018-0370

STAFF RECOMMENDATION

COMES NOW the Public Service Commission Staff (“Staff”), by and through counsel, and recommends that the Commission grant to Mr. Carl R. Mills, individual, a Certificate of Convenience and Necessity (“CCN”) to provide regulated water services in Carriage Oaks Estates, located in Stone County, Missouri. In support of this *Recommendation*, Staff states as follows:

1. On June 7, 2018, Carl R. Mills Trust (“Mills Personal Trust”) filed an *Application* with Commission requesting a CCN for Applicant to construct, install, own, operate, control, manage and maintain a water system in the subdivision known as Carriage Oaks Estates, located in Stone County, Missouri.

2. On June 8, 2018, the Commission issued an *Order Directing Notice and Setting Intervention Deadline* (the “June 8 Order”) allowing interested persons wishing to intervene until June 29, 2018, to file a motion to intervene in this matter. On June 29, 2018, Derald Morgan, Rick and Cindy Graver, William and Gloria Phipps, and David Lott filed an *Application to Intervene*; said *Application to Intervene* was granted on July 10, 2018.

3. On August 6, 2018, Staff stated it anticipated filing a Staff Recommendation on September 20, 2018. On September 19, 2018, Staff filed a

Motion for Extension of the deadline to October 11, 2018. The Commission granted the *Motion for Extension* on September 20, 2018, setting the filing deadline for October 11, 2018.

4. On October 2, 2018, an *Amended Application* was filed by Mr. Carl R. Mills, individually. While the contents and request of the *Amended Application* are substantially similar to the originally filed *Application*, Mr. Mills now seeks the CCN directly, rather than through the Mills Personal Trust. Staff supports this amendment.

5. Pursuant to Section 393.170, RSMo, no water corporation shall provide service to consumers without first having obtained approval from the Commission. In determining whether or not to grant such approval, the Commission has traditionally applied the five “Tartan Criteria” established in *In the Matter of Tartan Energy Company, et al.*, 3 Mo. PSC 3d 173, 177 (1994): (1) there must be a need for the service; (2) the applicant must be qualified to provide the service; (3) the applicant must have the financial ability to provide service; (4) the applicant’s proposal must be economically feasible; and (5) the service must promote the public interest.

6. After the completion of its *Memorandum*, but prior to filing this pleading, the Intervenor filed *Suggestions in Opposition*. Staff notes the *Suggestions in Opposition* raise concerns about service quality issues, among other items. As a result, Staff notes for the Commission that the attached *Memorandum* represents Staff’s understanding of the information at the time of drafting, and Staff will continue to review and investigate as directed, and supplement its Staff Recommendation as the facts warrant.

7. As explained in the *Staff Memorandum*, attached hereto, Staff conducted an investigation into Mr. Mills' request. Based upon its review, Staff concludes that, based on the information known to Staff at the time of drafting the *Memorandum*, Mr. Mills meets the requirements of the Tartan Criteria.

8. Mr. Mills filed the *Application* and *Amended Application* in response to the *Report and Order* issued in Case No. WC-2017-0037. That *Report and Order* in part directed Mr. Mills to file a subsequent rate case "upon" obtaining a CCN.¹ In the course of evaluating the *Amended Application* and making its Recommendation, Staff notes that, based upon its investigation and evaluation in this action, that a subsequent rate case immediately filed by Mr. Mills would not produce further information beyond what was already provided and reviewed in the current matter. Rather, Staff recommends that, if the Commission approves the issuance of a CCN, the Commission extend the time to file a rate case to one year after the effective date of the order approving a CCN, so as to allow for the booking of actual utility expenditures that can be used to set rates.

9. Accordingly, Staff recommends approval granting the CCN, with conditions described in the *Staff Memorandum*, as the requested CCN would be necessary and convenient for the public service.

WHEREFORE, Staff respectfully submits this Staff Recommendation for the Commission's information and consideration, and requests the Commission grant Mr. Mills a Certificate of Convenience and Necessity, with conditions, to provide water service to the requested service area.

¹ See, Case No. WC-2017-0037, EFIS Item No. 91, *Report and Order*, Ordered Paragraph 3, p. 14.

Respectfully submitted,

/s/ Jacob T. Westen

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Attorney for the Staff of the
Missouri Public Service Commission

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed or hand-delivered, transmitted by facsimile or electronically mailed to all parties and or counsel of record on this 11th day of October, 2018.

/s/ Jacob T. Westen

MEMORANDUM

TO: Missouri Public Service Commission
Official Case File, Case No. WA-2018-0370

FROM: James A. Merciel, Jr - Water and Sewer Department
Ashley Sarver - Auditing Department
Deborah Bernsen - Customer Experience Department
Ben Rankin - Customer Experience Department

/s/ James A. Merciel, Jr. 10-11-18
Case Coordinator / Date

/s/ Alexandra Klaus 10-11-18
Staff Counsel's Office / Date

SUBJECT: Recommendation of Approval on Amended Application

DATE: October 11, 2018

CASE BACKGROUND

On June 7, 2018, the Carl R. Mills Trust (Mills Trust) filed its *Application for Convenience and Necessity* (Application) with the Missouri Public Service Commission (Commission). Mills Trust seeks a Certificate of Convenience and Necessity (CCN) to provide water service to a subdivision development named Carriage Oaks Estates, near Reed Spring in Stone County, Missouri.

On October 2, 2018, Mr. Carl R. Mills (Mr. Mills or Applicant) submitted in this case an *Amended Application for Convenience and Necessity* (Amended Application). The Amended Application stated that the Mills Trust is Mr. Mills' personal trust, that the Application "wrongfully" listed Mills Trust as the "original owner" of the water system, and the Amended Application now requests that the Commission grant a CCN to Mr. Mills to provide water service.

The Application and Amended Application were filed to comply with the Commission's *Report and Order* in Case No. WC-2017-0037 (ref. EFIS Item No. 91), effective on May 14, 2018, which ordered Mr. Mills to seek a CCN.

On June 29, 2018, several homeowners who are customers of the involved water system¹ submitted an *Application to Intervene*. The Commission granted intervention on July 10, 2018.

BACKGROUND OF THE WATER SYSTEM

Some background information of this utility operation was submitted by Staff in its *Staff Report and Motion for Mediation* filed in WC-2017-0037 on October 28, 2016 (ref. EFIS No. 15). According to information provided to Staff by Respondents in that case, and observed by Staff in the field, the developed area of Carriage Oaks Estates consists of Phase I with eight (8) lots and

¹ This current CCN case, as directed by the Commission's Report and Order in WC-2017-0037, pertains only to the water system. Operation of a sewer system in Carriage Oaks was also the subject of WC-2017-0037, but due to its small size was found by the Commission to not be subject to jurisdiction.

Phase II with twenty-four (24) lots, for a total of thirty-two (32) lots. Of these 32 existing lots in the developed area of the subdivision, at present there are seven (7) lots upon which homes have been constructed and which are receiving water and sewer service. Staff observed that water (and sewer) service connection components are visible upon some of the remaining lots, and available for water/sewer connections of future new homes on those lots.

There are also approximately twenty-three (23) acres of additional unplatted land available that could be developed in the future. A proposed Phase III would be included within this undeveloped area and could add approximately twenty-three (23) additional lots.

The water system consists of a single well with current production capacity of fifty-five (55) gallons per minute (gpm), a ground storage tank of an approximate volume of 35,000 gallons, high service pumps to provide distribution system water pressure and bladder type pressure tanks to normalize distribution system pressure. The distribution system is in place for all of the existing 32 lots in the developed area. The system includes meters for six of the seven customers, although at present they are neither being read nor used for billing. Expenses associated with operation of the water system are handled through a homeowners association,² another trust Mr. Mills has created, or other entities owned or controlled by Mr. Mills.

Utility Property Ownership – Compiled upon advice of Staff Counsel.

As a result of the Commission's decision in WC-2017-0037, and the operation of § 393.190 RSMo, Staff asserts that the amended applicant of the amended application, Mr. Mills, is the proper applicant for the utility currently used to provide service, and is correctly seeking a CCN from the Commission. However, to Staff's knowledge at this time, actual legal title to the utility property is still held by Carriage Oaks Not-for-Profit Water and Sewer Corporation. Mr. Mills will need to obtain legal title to the utility property from Carriage Oaks Not-for-Profit Water and Sewer Corporation, to ensure that he has complete and independent access and control over the entire water system. Therefore, Staff recommends that Mr. Mills re-obtain legal title to the utility property within thirty (30) days after the effective date of an order from the Commission granting a CCN to Mr. Mills, and file a statement of accomplishing such in this case file.

STAFF'S INVESTIGATION

Service Area

In the Application and Amended Application, the Applicant included a map of the subdivision, and a series of metes and bounds property descriptions, intended to represent the requested service area. However, Staff does not agree that the submitted information is accurate for the purpose of depicting the service area. During Staff's field visit on August 14, 2018, to observe the water system and service area, Mr. Mills provided a better map that adequately illustrates the requested service area. Staff proposes an alternative map as well as new metes and bounds

² For detail regarding control of utility expenses, ref. the *Staff Report and Motion for Mediation* filed in WC-2017-0037, EFIS No. 15.

description based on the most recently provided information. Staff's proposed water service area map is shown as Attachment A, and the metes and bounds written description is shown as Attachment B, each included with this Memorandum.

Plant-In-Service Balances

Mr. Mills sent Staff invoices for the cost of the storage tank and high-service pumping system constructed in 2015. Records for the cost of plant-in-service constructed during the beginning of the subdivision development, almost 20 years ago, were not provided to Staff. Using this information, some of the information stated in the Application and Amended Application, and its own judgement, Staff created an estimate of water utility plant-in-service, along with an estimated depreciation reserve. Further, this water system was apparently constructed with the intention of providing service to a total of approximately 55 customers in all three development phases as described above. However, since there are only seven customers at present, Staff proposes applying a capacity adjustment as the small fraction of the total customer potential should not be required to pay for the entire capital cost of the water system. Staff's estimated rate base and the capacity adjustment are shown on Attachment C, included with this Memorandum.

Rate and Tariff Matters

Staff obtained information for some operating expenses from Mr. Mills, and also calculated or estimated certain operating expenses on a pro-forma basis, to reflect expenses Applicant is likely to incur as a regulated water utility. Staff's summary of expected operating expenses is shown on Attachment D, included with this Memorandum. Based on these expenses, Staff proposes a flat quarterly rate for water service of \$344.17,³ also shown on Attachment D. Staff acknowledges that this is a high rate for water service. This is primarily due to the fact that there are only (7) seven customers on the system to share the fixed costs of operating the water system. The fixed costs include the electric utility's customer charge portion of the electric bill, the cost of day-to-day routine tasks and undertaking system repairs, all of which are unrelated to both water usage and the number of customer connections.

Staff suggests that Mr. Mills start reading customer meters at least quarterly, read the master meter located in the well house at least weekly, and record all meter readings. There are two reasons for this suggestion: one is to collect water usage information for possible consideration of metered rates in the future, if Mr. Mills intends to propose metered rates; and the other is to be able to analyze distribution system water loss.

Assuming the Commission grants a CCN in this case,³ the Applicant will need to keep water utility financial records in accordance with the National Association of Regulatory Utility

³ Although Applicant proposed a metered rate in its Application and Amended Application, Staff does not have sufficient water usage information to recommend metered water rates at this time. Also, if a metered rate were in place then aging meters may need to be tested or replaced in accordance with Commission rule 4 CSR 240-10.030 (38).

Commissioners (NARUC) Uniform System of Accounts. Staff will offer assistance in setting up records, if such assistance is desired by Mr. Mills.

Applicant will additionally need to submit a water tariff that includes service area depiction, rates, and rules pertaining to water service. Staff will work with Mr. Mills to create the document.

The above mentioned Report and Order in Case No. WC-2017-0037 also required that, “upon obtaining a Certificate of Convenience and Necessity, Carl Mills shall initiate a rate case with the Missouri Public Service Commission.” Staff, having reviewed available financial information, suggests that a rate case filed by Mr. Mills immediately after the granting of a CCN in this current case would be unproductive. The reason is that expense records that exist were reviewed by Staff, with known and estimated expenses included in the recommended rates for this case. Staff recommends that, alternatively, the Commission allow postponement of the requirement to file a rate case for one (1) year after the effective date of a CCN granted to Mr. Mills. This would allow Mr. Mills, as a regulated utility, to properly record all utility-related expenses incurred, including that for billing, along with water usage information. Further, Staff recommends that as a regulated water utility, Mr. Mills make available for audit and review all available invoices, originals or copies, for expenses pertaining to the capital costs of constructing and installing the water utility assets. Staff anticipates that these invoices could belong to Mr. Mills’ other entities including, but not limited to, Carriage Oaks Estates Homeowners Association, Distinctive Designs, Ltd., and Caring Americans Trust Foundation, Inc.

Technical, Managerial, and Financial Capacity, and Tartan Energy Criteria

Staff utilizes the concepts of technical, managerial, and financial capacities (TMF) in studying situations involving newly certificated water and/or sewer operations. Mr. Mills will rely on technical consultants for design, construction and major repairs. Mr. Mills oversees or undertakes operations of the water system. Financial resources largely are from Mr. Mills as the developer of the subdivision. Staff observes that the water system appears to be adequately designed and constructed, is in good condition, and customers are not complaining about service issues.

When considering a request for a new CCN, the Commission applies criteria originally developed in Case No. GA-94-127, a CCN case filed by the Tartan Energy Company and referred to now as the “Tartan criteria.” The Tartan criteria contemplate 1) need for service; 2) the utility’s qualifications; 3) the utility’s financial ability; 4) the feasibility of the proposal; and, 5) promotion of the public interest. For its reviews, Staff also analyzes whether or not other utility entities are available to provide similar service. In this situation, no other utilities are readily available to provide water and sewer services.

(1) Need for Service

There is a need for service. Existing residential customers have, and possible future residential customers will have, a desire and need for water service. Mr. Mills, through one or more affiliated entities, presently operates an existing water system that is utilized to provide such service, and no other water systems are readily available.

(2) Applicant's Qualifications

Mr. Mills has provided safe and adequate water service for this service area in past years. Staff concludes Mr. Mills is sufficiently qualified through experience to provide the service.

(3) Applicant's Financial Ability

Staff's observation of current operations indicates that upgrades and repairs that have required financial resources appear to have been adequate in the past. Mr. Mills has primarily used personal financial resources to address upgrades and repairs.

(4) Economic Feasibility of Proposal

Mr. Mills' proposal to own and operate the water system serving Carriage Oaks subdivision is economically feasible, based on an observation that operations presently appear to support current expenses. However, if expenses associated with rate base are actually included in rates, then a rate base capacity adjustment similar to Staff's proposal would likely be necessary for feasibility purposes.

(5) Promotion of the Public Interest

As the Commission determined in Case No. GA-94-127, positive findings with respect to the other four standards above will in most instances support a finding that an application for a certificate of convenience and necessity will promote the public interest. For the reasons outlined throughout this Memorandum, and considering this operation exists with customers receiving water service at present, with no known service complaints, Staff asserts that Mr. Mills' request for a CCN serves the public interest. Staff concludes that the points regarding TMF capacities and the Tartan Energy criteria are all met for this case.

Depreciation

For existing and future plant-in-service, Mr. Mills will need depreciation rates prescribed by the Commission for water utility plant accounts. Staff recommends the Commission approve water depreciation rates similar to those prescribed for most small regulated water systems, as shown on Attachment E, included with this Memorandum.

Publicity and Customer Notice

Staff notes that this matter is before the Commission as a result of customers of this water system who filed Case No. WC-2017-0037. The same customers were granted intervention by the Commission in this pending case. Mr. Mills additionally stated to Staff in a data request

response that due to the small size of Carriage Oaks Estates, residents were individually notified of the case pending before the Commission. Therefore, Staff asserts that there is no need for any special customer notice or a local public hearing regarding this proposal. Mr. Mills will need to communicate with customers after the granting of a CCN, as is normal procedure for all regulated water utilities.

Customer Experience Department

The Customer Experience Department (CXD) submitted a number of data requests to determine the present operating practices of the water system and entities related to providing customer service. The transition to becoming a regulated utility will necessitate a number of changes from the water system's current customer service practices, including billing and payment processing. Mr. Mills will be required to comply with the provisions of 4 CSR 240-13 (Chapter 13) which governs billing, meter reading, payment, discontinuance of service, and other customer service processes.

At the present time, all customer service functions, including billing for water service, are performed within the activities connected to the Carriage Oaks Estates Homeowners Association (HOA). Currently, the HOA issues an annual assessment that covers, among other things, the water service. Historically the assessment was delivered to the residents by Mr. Mills. The most recent HOA assessment for 2017 was \$2,100.00 per lot; however, the bills are not itemized and it is not possible to determine what portion of the assessment is for the operation of the water system. As a regulated utility, Mr. Mills will be required to produce monthly or quarterly bills for his water customers that specifically delineate the water charges and follows the requirements of Chapter 13.

Mr. Mills states he currently handles customer service inquiries himself under an "open door policy" and is available to customers "seven (7) days a week within reasonable hours." Mr. Mills has informed Staff that he "fully intends to turn over the operation of the water system to an independent third party as soon as possible." Mr. Mills has asserted that many of the current customer service practices, such as his "open door policy," will change once a contract manager becomes involved with regulated water utility business matters for Mr. Mills. Staff notes that even if contract operations and/or contract management are utilized by Mr. Mills, all regulatory requirements will remain with Mr. Mills, as the regulated water utility. At the time of this memorandum, Staff has not reviewed any contract for proposed management, and has not included any cost of contract management in proposed rates.

CXD Staff sent a letter to Mr. Mills dated August 1, 2018, which included a copy of Chapter 13 along with some explanations of various rule requirements. CXD Staff participated in phone calls with Mr. Mills to assist in his understanding of the rules pertaining to customer service functions. In addition, CXD Staff has offered to share documents that may provide guidance to Mr. Mills in meeting various requirements of the rules.

REGULATORY COMPLIANCE ISSUES

Staff notes that, assuming the Commission grants a CCN to be a regulated water utility, Mr. Mills will have obligations that include compliance with various regulations, including but not limited to 4 CSR 240 Chapters 3, 10, 13 and 50. Some specific items include keeping the aforementioned tariff current with any changes to requirements of customers, maintaining water quality to meet state and federal drinking water standards, complying with requirements for regularly occurring filings such as annual reports, developing customer billing procedures, the aforementioned recording of expenses in accordance with the Uniform System of Accounts, and the payment of annual assessments imposed by the Commission.

STAFF'S RECOMMENDATIONS AND CONCLUSIONS

Staff's position, based on its review as described herein, is that the proposal for a new CCN issued to Mr. Mills to provide water service, along with approval of service area, rates, and depreciation rates as described in this Memorandum, serves the public interest as the operations providing service and the customers receiving the same will receive the attendant benefits of rate regulation and oversight; and, Staff recommends approval, with the conditions as outlined below.

STAFF'S RECOMMENDATIONS

Staff recommends that the Commission:

1. Grant Mr. Mills a CCN to provide water service;
2. Approve the water service area depicted by the map and metes and bounds description included with this Memorandum;
3. Approve a quarterly flat rate for water service of \$344.17;
4. Require Mr. Mills, as a regulated water utility, to follow all applicable requirements pertaining to regulated water utilities;
5. Require Mr. Mills, as a regulated water utility, to create and keep financial books and records for plant-in-service, revenues, and operating expenses (including invoices) in accordance with the NARUC Uniform System of Accounts;
6. Require Mr. Mills to, going forward, keep and make available for audit and review all invoices and documents pertaining to the capital costs of constructing and installing the water utility assets;
7. Approve depreciation rates for water utility plant accounts as described and shown herein;
8. Require Mr. Mills to submit a complete tariff for water service, as a thirty (30) day filing, within ten (10) days after the effective date of approval of a CCN by the Commission;

9. Require Mr. Mills, as the regulated water utility, to submit information in this case file indicating he owns pertinent water utility real estate, and has access and control of water-related utility easements throughout the service area, within thirty (30) days after the effective date of approval of a CCN by the Commission;
10. Extend the requirement for Mr. Mills to submit a rate case before the Commission upon issuance of a CCN, as ordered in the Commission's *Report and Order* issued in WC-2017-0037, to submitting a rate case one year after the effective date of the issuance of a CCN in this case;
11. Make no finding that would preclude the Commission from considering the ratemaking treatment to be afforded any matters in any later proceeding;
12. Require Mr. Mills to distribute to all customers an informational brochure detailing the rights and responsibilities of the utility and its customers regarding its water service, consistent with the requirements of Commission Rule 4 CSR 240-13, within thirty (30) days after the effective date of approval of a CCN by the Commission;
13. Require Mr. Mills to provide to the CXD Staff a sample of three (3) bills from the first billing cycle after the effective date of approval of a CCN by the Commission; and,
14. Require Mr. Mills to file notice in this case once Staff recommendations Nos. 12-13 above have been completed.

Staff will submit a further recommendation regarding a water tariff to be filed by Mr. Mills in this matter.

Attachments:

- A: Proposed Revised Water Service Area Map
- B: Proposed Revised Water Service Area Description
- C: Staff's Estimated Plant-in-Service Accounts, Rate Base, and Capacity Adjustment
- D: Staff's Estimated Expenses and Rate Calculation
- E: Schedule of Depreciation Rates for Water Plant

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Necessity Authorizing it to Install, Own, Acquire,)
Construct, Operate, Control, Manage and)
Maintain Water Systems in Carriage Oaks)
Estates)

Case No. WA-2018-0370

AFFIDAVIT OF DEBORAH ANN BERNSEN

State of Missouri)
) ss.
County of Cole)

COMES NOW Deborah Ann Bernsen, and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached Staff Memorandum; and that the same is true and correct according to her best knowledge and belief.

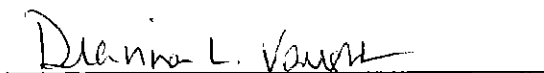
Further the Affiant sayeth not.



Deborah Ann Bernsen

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 11th day of October, 2018.



NOTARY PUBLIC

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

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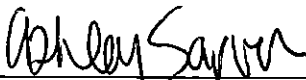
Case No. WA-2018-0370

AFFIDAVIT OF ASHLEY SARVER

State of Missouri)
) ss.
County of Cole)

COMES NOW Ashley Sarver, and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached Staff Memorandum; and that the same is true and correct according to her best knowledge and belief.

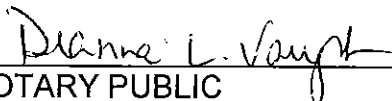
Further the Affiant sayeth not.



Ashley Sarver

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 11th day of October, 2018.



NOTARY PUBLIC

DIANNA L. VAUGHN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

Carriage Oaks Service Area Map

How to Find and Download Products

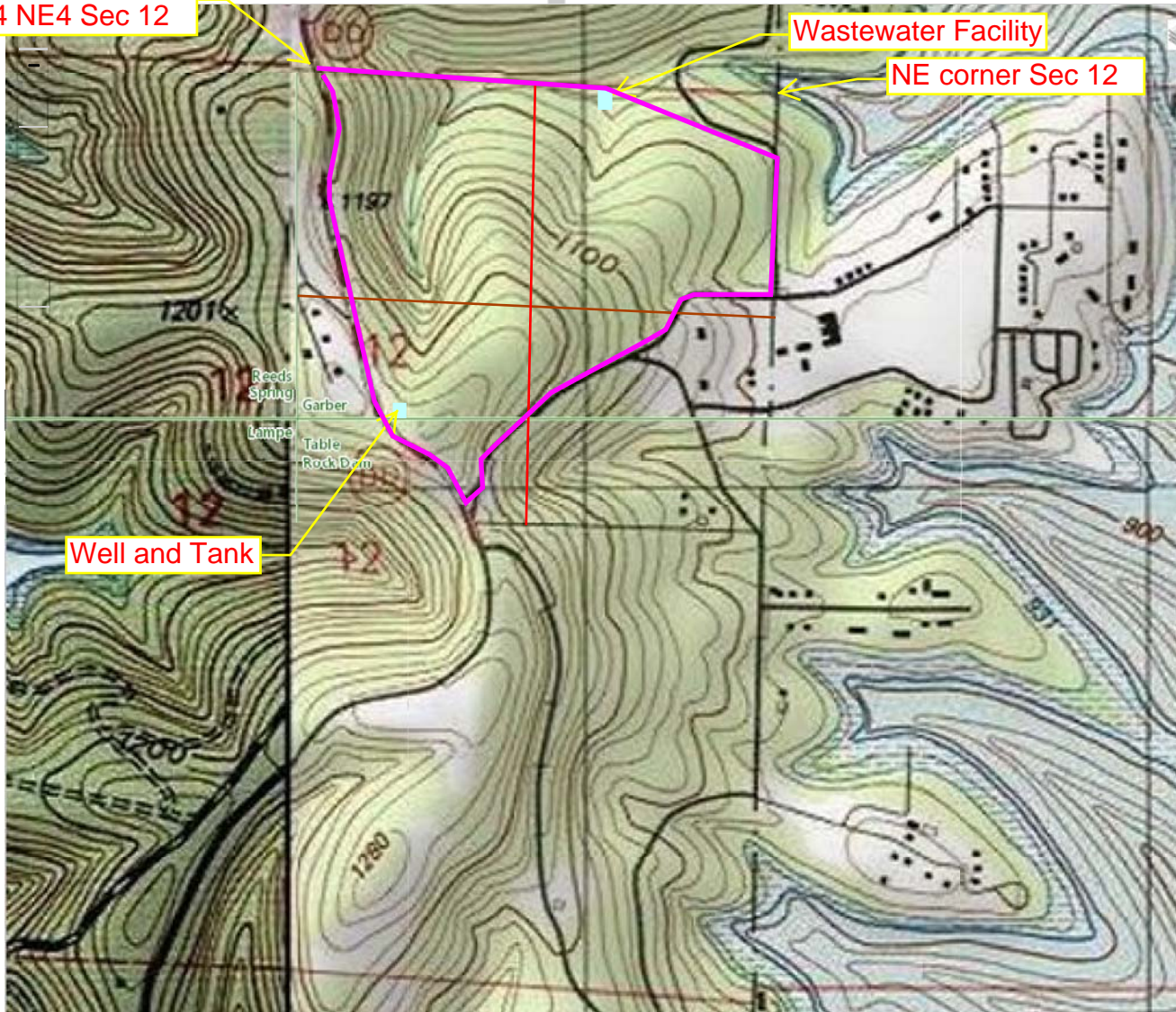
- Use Map
- Box/Point
- Current Extent
- Coordinates
- Located Point
- Polygon
- Map Indices
- Users can find products in the following steps. ([Tutorial Videos](#))
- 1 Degree
- 15 Minute
- 7.5 Minute
- All
- Zoom in to make 7.5 min indices visible
- Address/Place/Name/Point
- Download Client
- Download Data with The National Map Download Client
- Download Maps with The National Map Download Client
- Using The National Map Download Manager

POB - NW corner
NW4 NE4 Sec 12

Wastewater Facility

NE corner Sec 12

Well and Tank



- *1: Click to show/hide the footprint on the map.
- *2: Click to show/hide the thumbnail on the map.
- *3: Click to zoom to the footprint.
- *4: Click to display the metadata.
- *5: Click to download the product.
- *6: Save URLs of all items (max. 5000 items) to a text file.
- *7: Save all items (max 5000 items) to a CSV file.

↑

"+" to add the item to the Cart.
"-" to remove the item from the Cart.

100 m
500 ft

Attachment A

WA-2018-0370
Carriage Oaks Service Area
Attachment Page 1 of 2

(Revised Sept 21, 2018)

Beginning at the NW corner of the NW quarter of the NE quarter of Section 12 T22 R23, Stone County Missouri; thence along the north line of Section 12 S 87°31'18"E 8.80 feet to the true Point of Beginning;

Thence continuing westerly along the north line of Section 12 S 87°31'18"E 1,301.2 feet to the NW corner of the NE quarter of the NE quarter of Section 12;

Thence continuing along the said north line of Section 12 S87°23'00" 332.45 feet to US Corp of Engineers monument 211-1-6;

Thence S67°19'40"E 309.60 feet to US Corp of Engineers monument 211-1-6A;

Thence S67°19'40"E 754.98 feet to US Corp of Engineers monument B211-1-7 and the east line of Section 12;

Thence southerly along the said east section line S01°49'05"W 334.93 feet to US Corp of Engineers monument B211-1-7A;

Thence continuing along the said east section line S01°49'05"W 510.15 feet to a point;

Thence departing the said east section line along Road DD-20 N85°28'09"W 200.00 feet;

Thence N81°49'18"W 175.32 feet;

Thence along a curve to the left with a radius 175.01 feet, an arc distance 241.96 feet and change in direction 79°12'56";

Thence S18°57'46"W 102.99 feet;

Thence S34°51'00"W 102.63 feet;

Thence S65°25'00"W 435.94 feet;

Thence S57°22'00"W 267.17 feet;

Thence S48°48'00"W 540.61 feet;

Thence S14°13'00"W 216.79 feet;

Thence S62°59'46"W 63.25 feet to a point at the intersection of said road DD-20 and MO State Highway DD;

Thence northwesterly along said Highway DD N24°03'59"W 99.18 feet;

WA-2018-0370
Carriage Oaks Service Area
Attachment Page 2 of 2

Thence along a curve to the left with a radius 405.13 feet, an arc distance 193.34 feet and change in direction $27^{\circ}20'36''$;

Thence $N51^{\circ}24'35''W$ 187.30 feet;

Thence along a curve to the right with a radius 538.69 feet, an arc distance 348.65 feet and change in direction $37^{\circ}05'00''$;

Thence $N14^{\circ}19'35''W$ 356.88 feet;

Thence $N14^{\circ}27'49''W$ 333.46 feet;

Thence $N12^{\circ}57'35''W$ 356.98 feet;

Thence along a curve to the right with a radius 681.78 feet, an arc distance 238.98 feet and change in direction $20^{\circ}05'00''$;

Thence $N07^{\circ}07'25''E$ 210.21 feet;

Thence along a curve to the left with a radius 672.27 feet, an arc distance 320.52 feet and change in direction $27^{\circ}19'00''$;

Thence $N20^{\circ}11'35''W$ 85.44 feet, to the Point of Beginning;

Carriage Oaks

WA-2018-0370

rate base estimate
With Capacity Adjustment

Staff estimated rate base

Account Description	Acct No	Plant in Service		Depreciation Expense				ReserveBalance	Reserve		Net Plant	Capacity
		estimated original	Capacity END PIS	vintage	Depreciation %	annual depr expense	Capacity End Dep Exp	2018	Capacity End Reserve	2018	Net Plant 2018	
Land and Land Rights	301-310	\$15,000	\$1,909		0.0		\$0		\$0	\$15,000	\$1,909	
Structures and Improvements	311	\$6,800	\$865	2000	2.5	\$170	\$22	\$3,060	\$389	\$3,740	\$476	
Wells and Springs	314	\$83,000	\$10,564	2000	2.0	\$1,660	\$211	\$29,880	\$3,803	\$53,120	\$6,761	\$93,000 for entire well system - allocate out
Supply mains	316			ignore	2.0							
Electrical - well pump	325	\$3,000	\$382	2000	10.0	\$300	\$38	\$3,000	\$382	\$0	\$0	entire account is depreciated
hi service electrical	325	\$3,000	\$382	2015	10.0	\$300	\$38	\$3,000	\$382	\$0	\$0	
Electric Submersible Pumping	325.1	\$6,000	\$764	2000	10.0	\$600	\$76	\$6,000	\$764	\$0	\$0	depreciated
High Service pumping	325.2	\$9,950	\$1,266	2015	6.7	\$667	\$85	\$2,000	\$255	\$7,950	\$1,012	\$9,950 for entire high service setup - allocate out
Water Treatment Equip	332	\$1,000	\$127	2000	2.9	\$29	\$4	\$522	\$66	\$478	\$61	chlorinator
Dist Reservoirs and Standpipes	342	\$29,500	\$3,755	2015	2.5	\$738	\$94	\$2,213	\$282	\$27,288	\$3,473	30,000 gallons
Trans & Dist Mains	343	ciac			2.0	\$0	\$0	\$0	\$0		\$0	
Services	345	\$13,750	\$1,750	2002	2.5	\$344	\$44	\$5,500	\$700	\$8,250	\$1,050	estimate 25 ft ave \$10.00 per foot per customer
Meters	346			ignore	10.0							depreciated, and not being used
Meter Installation Cost (Pits)	347	\$11,000	\$1,400	2002	2.5	\$275	\$35	\$4,400	\$560	\$6,600	\$840	estimate \$200.00 per customer
Hydrants	348				2.0							
Office Furniture & Equip	391/372				5.0							
Office Computer Equip	391.1/372.1				14.3							
Transportation Equip	392/373				13.0							
Stores Equipment	393				4.0							
Tools, Shop, Garage Equip	394				5.0							
Laboratory Equip	395				5.0							
Power Operated Equip	396				6.7							
Communications Equip	397				6.7							
Other General Equipment	379				6.7							
TOTALS		\$182,000	\$23,164			\$5,082	\$647	\$59,574	\$7,582	\$122,426	\$15,581	total net plant-total rate base

capacity adjustment - exclude per-customer items
55
7

plant in service	\$	182,000
current total rate base	\$	122,426
capacity adj rate base	\$	15,581

\$2,225.86 per customer

capacity adjustment is based on the ratio of present customers to total lots
this is the "developer-style" capacity adjustment calculation

PLANT IN SERVICE	\$23,164	DEPRECIATION EXPENSE	\$647	RESERVE	\$7,582	RATE BASE	\$15,581
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NOTE: Plant in Service is overstated, due to an assumption that services and meter settings are in place for all 55 lots.

This assumption is used in order to easily compute the capacity adjustment
Service and meter settings likely exist only for the 32 developed lots
This overstating does not impact rates, if the capacity adjustment is included in rate calculations.

Return on Rate Base \$ 1,277.64

Carl R. Mills - Carriage Oaks WA-2018-0370

COST OF SERVICE

<u>Expense</u>	<u>Amount</u>
Operations & Maintenance - Outside Services Employed	\$4,314.00
Maintenance (Estimate)	\$300.00
Billing (Quarterly)	\$76.74
Chemical Expense (Estimate)	\$51.10
Electricity Expense	\$2,882.67
PSC Assessment (1.01654078% of revenue)	\$87.72
Depreciation Expense	\$646.84
Weighted Return on Rate Base (8.20%)	\$1,277.64
Total Annual Cost of Service - Water	\$9,636.70

Quarterly Flat Rate **\$ 344.17**

7 customers

Carl R. Mills
SCHEDULE of DEPRECIATION RATES
(WATER Class C & D)
WA-2018-0370

NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
Source of Supply				
311	Structures & Improvements	2.5%	44	-10%
314	Wells & Springs	2.0%	55	-8%
Pumping Plant				
321	Structures & Improvements	2.5%	44	-10%
325.1	Submersible Pumping Equipment	10.0%	12	-20%
325.2	High Service or Booster Pumping Equip.	6.7%	15	0%
WaterTreatment Plant				
331	Structures & Improvements	2.5%	44	-10%
332	Water Treatment Equipment	2.9%	35	0%
Transmission and Distribution				
342	Distribution Reservoirs & Standpipes	2.5%	42	-5%
343	Transmission & Distribution Mains	2.0%	50	0%
345	Customer Services	2.5%	40	0%
346.1	Customer Meters, Plastic Compnents	10.0%	10	0%
347	Customer Meter Pits & Installation	2.5%	40	0%
348	Hydrants	2.0%	50	0%
General Plant CLASS D				
371	Structures & Improvements	2.5%	40	0%
372	Office Furniture & Equipment	5.0%	20	0%
372.1	Office Electronic & Computer Equip.	20.0%	5	0%
373	Transportation Equipment	13.0%	7	9%
379	Other General Equipment (tools, shop equip., backhoes, trenchers, etc.)	6.7%	13	13%