

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

Greater Jefferson City Construction)
Company, Inc., and Edward P. Storey,)
)
 Complainants,)
)
 v.)
)
Aqua Missouri, Inc.,)
)
 Respondent.)

Case No. WC-2007-0303

STAFF'S INITIAL BRIEF

COMES NOW the Staff of the Missouri Public Service Commission and, for its Initial Brief, states to the Missouri Public Service Commission as follows.

INTRODUCTION AND OVERVIEW

The Commission ordered Complainants Edward P. Storey (“Storey”) and Greater Jefferson City Construction Company and Respondent Aqua Missouri, Inc. (“Aqua”) to file a list of issues. They did so on October 15, 2007. The Staff was not ordered to, and did not, participate in the preparation or filing of this list of issues.

The Staff respectfully submits that the ultimate issue in this case is whether the Commission should grant the relief that Complainants requested in their Amended Complaint herein. That is: Should the Commission order Aqua to allow an additional 32 hookups, or, if not, should the Commission order Aqua to expand its wastewater treatment facility to handle the additional 32 lots that are platted in the subdivision.

The issues that Storey and Aqua identified are useful only to the extent they help the Commission determine whether it should grant Complainants the relief they requested.

Pursuant to Section 393.130.1, RSMo,¹ Aqua has the duty, within reasonable limitation, to serve all persons in the area that it is authorized to serve, specifically including all of the Quail Valley Lake Subdivision. Aqua holds an Operating Permit for the Quail Valley Wastewater Treatment Plant, and the plant complies with the requirements of the Missouri Department of Natural Resources (“DNR”). The permit issued by DNR for the operation of the plant does not impose limits on the organic or hydraulic load in the influent to the plant, but only imposes limits on the quality of the effluent.

The Staff submits that the existing treatment plant is capable of treating the sewage from an additional 32 lots. The obligation to obtain any additional construction permits or operating permits rests upon Aqua.

JURISDICTION

Respondent did not raise the issue of jurisdiction in any pleading filed in this case, and the parties did not identify it as an issue in this case. However, Respondent’s counsel did argue, during the hearing, that the case – and specifically the Complaint – did not address any of the issues that give the Commission jurisdiction to hear a dispute.² In addition, the issue of jurisdiction is always a threshold question for the Commission, and the regulatory law judge stated in the hearing that he thought it should be reported in a brief filed by the attorney for the Staff.³ The Staff will therefore briefly address this issue.

Section 393.130.1 provides, in part: “Every gas corporation, every electrical corporation,

¹ Unless otherwise indicated, all statutory references are to RSMo 2000, as currently supplemented.

² T-284, lines 11-21.

³ T-286, line 20 – T-287, line 2.

every water corporation, and every sewer corporation shall furnish and provide such service instrumentalities and facilities as shall be *safe and adequate* and in all respects just and reasonable.” (Emphasis supplied.)

Earlier this year, this Commission stated, in *Becker v. Aqua Missouri*, Case No. SC-2007-0044, that: “Missouri’s courts have established as a general principle that ‘[t]he certificate of convenience and necessity issued to the utility is a mandate to serve the area covered and it is the utility’s duty, within reasonable limitation, to serve all persons in an area it has undertaken to serve,” citing *State ex rel. Missouri Power and Light Co. v. Pub. Serv. Comm’n*, 669 S.W.2d 941, 946 (Mo. App. W.D. 1984).⁴

Other recent cases holding to the same effect include: *In the Matter of the Application of Aquila, Inc.*, 13 Mo. P.S.C. 3d 435, 439 (2005) (“By the grant of area authority and by the natural duties that a corporation is obligated to under its charter, an electric utility corporation has the duty to provide safe and adequate power to the area that it serves”); and *GST Steel v. KCPL*, 9 Mo. P.S.C. 3d 186, 18x (2000) (“The Commission also has ‘plenary power to coerce a public utility corporation into a safe and adequate service,’ *State ex rel. Missouri Southern R. Co. v. Public Service Commission*, 259 Mo. 704, 168 S.W. 1156, 1163 (banc 1914)”). See, also, *State ex rel. Harline v. Public Service Commission of Missouri*, 343 S.W.2d 177, 181 (Mo. App. Court of Appeals, Kansas City District, 1960) (“The certificate of convenience and necessity is a mandate to serve the area covered by it, because it is the utility’s duty, within reasonable limitations, to serve all persons in an area it has undertaken to serve.” (citations omitted)).

The legal description of Aqua’s Quail Valley Lake service area was not offered into evidence in this case. However, Aqua’s service area is very large, comprising most of Cole

⁴ Respondent’s counsel should have more than passing knowledge of this case, for he was the attorney for Aqua Missouri in that case as well, and the Report and Order was issued barely four months ago.

County, and it seems beyond dispute that Aqua has “undertaken to serve” all of the Quail Valley Lake Subdivision.

The gravamen of Storey’s Amended Complaint in this case is that Aqua was supposed to serve the entire subdivision (see, *e.g.*, Paragraph 4.e of the Amended Complaint); that Aqua has refused to serve all lots in the subdivision (see, *e.g.*, Paragraphs 4.g, 4.l, and 4.m of the Amended Complaint), and that Complainant now requests an order from the Commission ordering Aqua to allow hookups for an additional 32 lots so the subdivision can be completely developed or to expand the facility (see the Prayer Clause of the Amended Complaint).

Surely the Complainant has invoked the jurisdiction of the Commission in this case by alleging that Respondent Aqua has failed and refused to provide safe and adequate service to the entire Quail Valley Lake Subdivision, which Aqua has undertaken to serve, in violation of Section 393.130.1.

ARGUMENT ON IDENTIFIED ISSUES

Issue No. 1: Is the Quail Valley Waste Water Treatment Facility capable of handling an additional 32 homes?

At the outset, it will be useful to determine what standard should be applied in determining how many additional homes the wastewater treatment facility (“WWTF”) is “capable of handling.” Aqua appears to argue that the applicable standard is the number of homes that the existing treatment facility was originally *designed to treat* – and that the number of homes that the existing treatment facility is now *actually able to treat* is irrelevant to the inquiry. That is, Aqua suggests that the standards that the DNR applies to the *design* of a facility must govern. The Staff, on the other hand, submits that the standards that the DNR applies to the *operation* of the facility must govern.

Organic Load

Evidence in this case centered on two different parameters of measuring the system's capacity: the organic load and the hydraulic load.

"Organic load" refers to the measurement of the amount of organic material that the influent to the treatment plant contains. It is usually expressed in terms of the five-day biochemical oxygen demand ("BOD") or in terms of total suspended solids ("TSS").

There can be little doubt that the existing Quail Valley treatment plant is not near the limit of its organic load. The BOD of domestic sewage typically averages about 200-220 milligrams per liter ("mg/l").⁵ But the BOD of the influent to the Quail Valley WWTP typically averages about 80 mg/l – a much lighter loading than is usually found in domestic sewage. The TSS of domestic sewage typically averages about 250 mg/l.⁶ But the TSS of the influent to the Quail Valley plant typically averages about 70 mg/l – a much lighter loading than is usually found in domestic sewage. The influent to the Quail Valley plant is weaker than typical domestic sewage because septic tanks provide a partial pretreatment that reduces the BOD and the TSS,⁷ and the sewage is even weaker for about one year after the solids retained in them are pumped out, as required by subdivision regulations.⁸

Complainant's witness, Gregory G. Haug, P.E. testified that the Quail Valley treatment plant was designed to handle a total BOD load of about 50 pounds per day, whereas the actual BOD load is only about 9.9 pounds per day. Aqua witness Aaron Lachowicz testified that the

⁵ T-135, lines 13-20.

⁶ T-135, line 21 – T-136, line 2.

⁷ T-450-452.

⁸ T-456-457.

organic load at the Quail Valley plant has always been in compliance with DNR regulations⁹ and that the BOD load and the TSS load at the Quail Valley treatment plant are relatively light.¹⁰

The DNR's operating permit requires the treatment plant to produce an effluent that does not exceed a BOD of 30 mg/l, and that does not exceed a TSS of 30 mg/l. There is no evidence that these limits have ever been exceeded, and the evidence is that both BOD and TSS in the effluent are typically less than 10 mg/l.

It appears that Aqua Missouri concedes that the organic load at Quail Valley is not a problem. Aqua witness Randy Clarkson, P.E. testified that his concern is not with organic loading,¹¹ and said that he was "not debating aeration – or capacity of the treatment plant to treat the organic waste."¹²

The Commission should find that the Quail Valley treatment plant is well within the limits of its organic capacity.

Hydraulic Load

Aqua seems to rest its claim upon the premise that the existing treatment plant is now or soon will be overloaded, even though the overwhelming preponderance of the evidence indicates that the plant is not yet at – or, indeed, near – its capacity. Resolution of this question requires a comparison between the *permitted* hydraulic load and the *actual* hydraulic load. Or, more specifically, the *expected actual* hydraulic load if additional residents are connected to the Quail Valley treatment plant.

⁹ T-489.

¹⁰ T-492.

¹¹ T-377, lines 16-18. See, also, T-428, line 17-20.

¹² T-451, lines 12-19.

Permitted Hydraulic Load.

Aqua operates the Quail Valley treatment plant pursuant to authority granted by the Missouri State Operating Permit that DNR issued to Aqua on February 4, 2005. A copy of this Operating Permit is in evidence as Exhibit 8.

Significantly, the Missouri State Operating Permit places *no limit whatsoever* on the hydraulic load that may be imposed upon the Quail Valley treatment plant.

The face of the Operating Permit states, in substance, that Aqua Missouri, Inc. “is authorized to discharge from [the Quail Valley Lake Subdivision WWTP], in accordance with the effluent limitations and monitoring requirements as set forth herein.”

The “effluent limitations and monitoring requirements” are set forth in Section A, on page 2 of the permit, and again on page 3 of the permit. There are limits on BOD, TSS, fecal coliform and total residual coliform in the effluent; but there is no limit on the hydraulic load (or “flow”) in either the effluent or the influent. There are, however, monitoring requirements for flow and pH, as well as the BOD, TSS, fecal coliform, and total residual chlorine in the effluent.

Section B (on page 2 of the permit and again on page 3) imposes standard conditions on the permittee, and Section C (on pages 4, 5, and 6 of the permit) imposes special conditions on the permittee. None of these general or special conditions places a limit on the hydraulic load on the treatment plant (the “flow”).

Page 1 of the permit does state that the design flow of the plant is 22,000 gallons per day. But it does not anywhere say that this flow may not be exceeded. The permittee must only satisfy the effluent limitations and monitoring requirements.

Page 1 of the permit also states: “Actual flow is 14,400 gallons per day.” See further discussion of this issue at pages 10-13 of this Brief.

The Quail Valley treatment plant was designed to comply with DNR Regulation 10 CSR 20-8.020, which is in evidence herein as Exhibit A. The “Purpose” clause of that rule, on the first page, includes the statement: “These criteria are *not necessarily* applicable to the design of works having *daily flows* in excess of 22,500 gallons per day.” (Emphases supplied.)

Respondent suggests that, because the measured effluent from the treatment plant occasionally exceeds 22,000 gallons per day (the “design flow”) and occasionally exceeds 22,500 gallons per day (the limit for “small sewage works”), Rule 8.020 may not apply to the Quail Valley treatment plant.

At the evidentiary hearing, Staff counsel inadvertently misread the passage quoted above, mistakenly inserting the word “average” before the words “daily flows.” Mr. Clarkson and counsel for Respondent pointed out this error. See page 459 of the Transcript, lines 6-22. A discussion of the significance of this misstatement is in order.

The Operating Permit states that the “actual flow” to the treatment plant is 14,400 gallons per day. Aqua Missouri’s own measurements of the flow clearly show that the average measured flow is far less than 22,000 gallons per day. On some occasions, however, the measured flow did exceed 22,000 gallons per day. Respondent seems to suggest, then, that the “*daily flow*” exceeds 22,000 gallons per day, because the *peak flow* exceeds 22,000 gallons per day.

But what, exactly, is meant by “daily flow”? Counsel for Staff could not find a definition of “daily flow” in either the Clean Water Law¹³ or the DNR regulations.¹⁴ Nor does Black’s Law Dictionary, 6th Edition, define the term “daily flow,” or even the word “daily.” We may therefore turn to a standard dictionary to determine the meaning of “daily.”

¹³ Chapter 644, RSMo.

¹⁴ 10 CSR Chapter 20.

The definition of “daily” in the American Heritage Dictionary, Second College Edition, reads as follows: “1. Done, happening, or appearing every day or weekday: *a daily walk*. 2. For each day: *a daily record*. 3. Day-to-day; everyday; *for daily use*.” (Italics in original.) Each one of these three definitions of “daily” refers to something that happens *every* day. Clearly, then, the word “daily,” as used in this regulation, does not refer to the *peak* instantaneous flow that occurs at any time¹⁵

The evidence in this case does not support a finding that the flow to the treatment plant exceeds 22,000 gallons every day, or most of the time, or even often. The evidence shows that the *instantaneous* flows to the plant exceed 22,000 on some days, but certainly not on a majority of days. Because the flow readings are *instantaneous*, they tell only what the flow was at a particular moment. They do not show what the total flow was for any day-long period of time.

The Commission should find that Rule 8.020 governs the design of the Quail Valley treatment plant, and that the Operating Permit does not prohibit flows in excess of 22,000 gallons per day.

Actual Hydraulic Load.

Aqua’s witness, Mr. Clarkson, acknowledged that he had not done a flow study, and he did not present any data concerning the actual hydraulic load on the existing Quail Valley plant. But he said that Complainant’s witness, Mr. Haug, had not done a proper study either. He thought the actual readings that Mr. Haug used were not reliable, and that it is more reasonable to rely on theoretical assumptions about *typical* flows than it is to rely on the *actual* data, which was gathered by Aqua itself.

¹⁵ If the DNR had intended to limit the peak flows to small sewage works, it could certainly have referred to the “peak flow.” It did not do so, but referred, instead, to the “daily flow.”

Water Usage Data.

Complainant's witness Haug relied to some extent on the quantities of water that are used by the residents of Quail Valley. He found that this usage amounts to about 183 gallons per customer per day. Aqua witness Clarkson testified (in a deposition) that the influent and effluent to the sewage treatment should be "commensurate with water usage," either "somewhat" or even "to a great extent."¹⁶ This would suggest that flow to the treatment plant might also be approximately 183 gallons per customer per day.

Mr. Clarkson suggested, though, that the flow to the treatment plant might actually be greater than the water usage, because of the effects of inflow and infiltration ("I & I"), which could amount to 20% or 30% of the influent to the treatment plant. He had not, however, done a study of the inflow and infiltration at Quail Valley, so he had no data to support this theory. And he acknowledged that there are no manholes at Quail Valley, thus eliminating one of the potential sources of inflow. He relied, instead, upon his experience that he had never seen a system that did not have inflow and infiltration, and that this is typically about 20%, and can be as high as 50%, but "it is certainly not zero."¹⁷ He admitted that every system is unique, he provided no I & I data that is specific to Quail Valley, and he had no flow data to contradict the data that Mr. Haug relied on; but yet he asked the Commission to speculate that the I & I is significant and that it is enough to cause the treatment plant to exceed its hydraulic capacity.

Aqua Missouri's Measurements of Actual Flows.

Mr. Haug did not do a flow study of his own, but relied, instead, upon Aqua's measurement of the flows. Aqua measured the influent about 160 times over a period of one

¹⁶ T-436, line 7-15.

¹⁷ T-382, line 20 – T-383, line 13.

year and reported this information to the DNR. These are the *only* flow numbers available.¹⁸

Mr. Clarkson, said he did not dispute the numbers, but then, rather cryptically, said the numbers don't have a high degree of accuracy. He testified, at page 447 of the Transcript, as follows:

I don't – I don't dispute the numbers, no, other than what I've testified to is that they are – they obviously don't have a high degree of accuracy because – and there was testimony entered in about this yesterday, that, you know, they jump from thousand – by several thousand to numbers – and then that number is repeated.

And so it's quite clear that there is – there is a question of exact accuracy. It relates to the type of meter and ability to see the markings and the chart they use and whatnot.¹⁹

Exactly what this means is not clear. The Staff assumes, though, that Mr. Clarkson distrusted the data because they were taken at the wrong time of the day. He said the data were taken between 8:00 a.m. and 5:00 p.m., when Aqua's employees were at work, whereas they should have been taken between 6:00 a.m. and 8:00 a.m. (when people are preparing to go to work) or in the evening hours (when people have returned from work and are doing their cooking and cleaning). Mr. Clarkson cited no data or authorities in support of this theory. And he did not provide the Commission with any other data or tool that would enable the Commission to even guess how much the readings would vary in the early morning and early evening hours.

But he did say, rather remarkably, that the flows at “3:00 a.m. in the morning, or whatever, when people are sleeping ... might be pretty similar” to the flows “during the middle of the day.”²⁰

Aqua witness Lachowicz testified that the instantaneous estimates of flow, as determined by Aqua, were the “best way” to monitor the flow.²¹ Mr. Lachowicz testified that the highest flow would generally occur between 7:30 and 8:30 in the morning, and that the readings at this

¹⁸ T-446, lines 10-13.

¹⁹ T-447, lines 1-11.

²⁰ T-448, lines 5-10.

²¹ T-487, lines 16-21.

time of day would exceed the daily average.²² He also testified that this is the tail end of the peak flow for the day, which occurs between 6:00 a.m. and 8:00 a.m.,²³ but he did not quantify the amount by which the morning peak would exceed the daily average flow.

The Staff submits that the daily peak flow is not relevant to the issues in this case. But even if it is, Aqua would wrongly require the Commission to speculate about how much this instantaneous peak might be, because it has not provided any data, whatsoever, on which the Commission might rely.

DNR's Determination of Actual Flow.

The first page of the Missouri State Operating Permit²⁴ contains the following statement: “Actual flow is 14,400 gallons per day.” This is well below the design flow of 22,000 gallons per day, and would seem to resolve the question of whether the hydraulic capacity of the plant has been exceeded.

Aqua witness Clarkson, however, seems to distrust this data. He testified, at pages 407-410 of the Transcript, as follows:

Q. Okay. Did the DNR state there that the actual average daily flow is 14,400 gallons per day?

A. The permit has a line that says actual flow is 14,400 gallons per day.

Q. Why would they say that if they hadn't made a determination that that's what it is?

A. Well, in my experience in working at DNR and having dealt with some permitting issues, that number reflects a determination made by the Department related to permit fees.

When the new permit fee was passed, they took a lot of political heat, so they developed a process whereby they could provide some relief.

So basically instead of whatever the fee is for 22,000 – and, again, recognizing I've been gone for four years. But if it's the same as when I was there, what that number represents is what somebody used to determine the permit fee.

²² T-490, line 18 – T-491, line 8.

²³ T-499, line 113 – T-500, line 1.

²⁴ Exhibit 8.

...

Q. Is it your testimony that the Department of Natural Resources doesn't really believe that this is a realistic number at all?

A. I don't know.

Q. Do you think that they think that the number is unreliable?

A. I – I don't know.

Q. Why would they put a number on an operating permit if they don't think it's reliable?

A. My understanding is that relates to how you calculated the fees.

Q. And what is the basis for that understanding?

A. Having worked there and known – being familiar with the fact that there was a process in place that was used in the Permit Section to do that.

Q. Am I correct in understanding that in order to keep the permit fees lower, the DNR misstates the amount of actual flow?

A. To keep it reasonable. The – the policy was intended to not basically charge a higher fee than was reasonable for the specific permittee.

The suggestion that the DNR purposely falsified its statement on Aqua's Operating Permit, in order to keep the fee reasonable, is offensive and should be rejected. The Commission should find that the actual flow to the Quail Valley treatment plant at the time the Operating Permit was issued, was 14,400 gallons per day. There is no credible evidence to the contrary.

The Collection System

Aqua apparently believes that, even if the wastewater treatment plant is not overloaded organically or hydraulically, and even if it is producing an effluent that is satisfactory to the DNR, additional connections will not be allowed, because the collection system – *i.e.*, the sewers that carry the sewage from the customers' homes to the treatment plant – is inadequate. In

reaching this conclusion, it places heavy reliance on a letter written in 2004 by Brenda Bethel, an employee of the DNR.

Mr. Clarkson testified that the collection system piping was intended to have more capacity than the plant has capacity,²⁵ but he still concluded that the collection system is “overtaxed,” because cleanout caps have popped off from back pressure during wet weather.²⁶ He also testified that the DNR may therefore determine they cannot issue the construction permit for additional sewers without a wastewater treatment plant expansion or the application of more stringent influent limitations.²⁷

Mr. Storey testified, though, that the backup could be caused by a buildup of solids in the line, and that he had to unclog the line on various occasions, because Aqua did not maintain it properly. Mr. Clarkson acknowledged that a backup could have resulted from such a buildup of solids.²⁸

Complainants’ witness Haug recommended that a separate sewer line be constructed to carry the additional sewage flow from the new hookups to the treatment plant, if necessary.

It is not now known whether Aqua adequately maintained the sewers or whether additional sewers need to be constructed to carry the additional sewage to the treatment plant. The DNR can and will resolve that issue whenever an application is made for the construction of additional sewers.

The responsibility for filing such an application rests upon Aqua. There is no reason why Complainant should have to make this application or prove the adequacy of the existing collection system. Aqua should make any necessary applications to the DNR and construct any

²⁵ T-452, line 22 – T-453, line 3.

²⁶ T-452, lin 11 – T-453, line 18.

²⁷ T-369, lines 9-14.

²⁸ T-453, lines 19-21.

additional sewer as necessary “within reasonable limitation” to serve the entire Quail Valley Lake Subdivision.

Issue No. 1.a: If not, how many more can it handle?

The capacity of the Quail Valley treatment plant is not limited by the number of homes it serves, nor by the organic loading or the hydraulic loading on the treatment plant. It is limited only by the effluent limitations on Aqua Missouri’s Operating Permit. So long as the BOD, TSS, fecal coliform, and total residual chlorine in the effluent stay within the prescribed limits, the plant will not exceed its capacity.

The Staff submits that the plant is “capable of handling” the sewage from an additional 32 homes. Aqua will, however, need to continue to monitor its compliance with the effluent limitations on the Operating Permit, as the number of connections to the treatment plant increases.

Issue No. 2: If not, who is responsible for expanding the plant?

As noted above, at page 3, in the section on “Jurisdiction,” it is Aqua’s duty, within reasonable limitation, to serve all persons in the Quail Valley Subdivision, because Aqua has undertaken to serve that subdivision.

It is not the responsibility of the customers to bear the cost of engineering studies to determine whether and when plant expansions are necessary. That is the responsibility of Aqua, which holds the certificate of convenience and necessity. Likewise, it is Aqua’s responsibility to construct such plant expansions as are necessary “within reasonable limitation.”

Aqua may, of course, require Complainants to comply with the terms of Aqua’s tariff when it undertakes such expansions. And the Commission can require Complainants to comply with the tariff as a condition of any order requiring Aqua to expand its facilities.

Issue No. 3: Did Complainants apply for additional hookups and, if so, did Respondents deny such application?

Issues 3, 4 and 5 all appear to be based upon the premise – urged by Aqua – that if Mr. Storey failed to make a formal application for additional hookups, in a form satisfactory to Aqua, then Aqua is not obliged to extend sewer service to the additional lots. These three issues are related, and the Staff will address them collectively in this section of this Initial Brief.

The evidence in this case clearly shows that Mr. Storey requested additional hookups, and that Aqua Missouri refused to provide them. See the testimony of Mr. Storey, at pages 54 and 55 of the Transcript.

Aqua does not deny that it will not permit additional hookups. In fact, that is what this entire proceeding is about. Mr. Storey requested more hookups, Aqua denied that request, and Aqua continues to deny the request. Aqua's only defense is that Mr. Storey did not put the request in proper form, by preparing and submitting a written application on forms provided by Aqua. Mr. Storey did request additional hookups, even if they were not in the form that Aqua requested.

The law does not require a useless act. There was no point in Mr. Storey submitting a written application for additional connections, because he had already been told that additional hookups would not be permitted.

If the Commission considers this lack of a formal application to be a problem, it can require, as a condition of the relief that it grants in this case, that Complainants execute and submit a written application to Aqua, and that Complainants comply in all other respects with Aqua's tariff.

**Issue No. 4: If Complainants did apply for additional hookups,
how many were applied for?**

See the discussion under Issue No. 3, immediately above.

**Issue No. 5: If Respondent did deny such application,
was Respondent's denial of additional hookups
wrongful, intentional, and without just cause or excuse?**

Respondent was obliged to serve Complainants and all others within the Quail Valley Subdivision, within reasonable limitation. Respondent has provided no just cause of excuse for its refusal to do so. The denial of the additional hookups was therefore wrongful, intentional, and without just cause or excuse.

See, also, the discussion under Issue No. 3, above.

**Issue No. 6: What was the original designed capacity
of the Waste Water Treatment Facility?**

The Quail Valley treatment plant was originally designed to treat the domestic sewage from 80 homes. When the plant was designed, there were no homes in the subdivision, there was no information about how many people actually lived in each home, no information about how much water they would use or how much organic loading or hydraulic loading they would impose on the plant. In the absence of actual information about these matters, the designer assumed that the average home would consist of 3.7 people, that each of them would contribute 75-100 gallons of sewage per day, and that each of these people would contribute 0.17 pounds of BOD per day, as required by DNR Rule 10 CSR 20-8.020. As a result, the treatment plant was originally designed for a population equivalent of 296 people, for a BOD load of 45 to 50 pounds per day, and for a hydraulic load of 22,000 gallons per day.

However, the original design is essentially a historical artifact that is not relevant to the evaluation of the treatment plant that now exists.

The Missouri State Operating Permit does not impose limits upon the number of houses or people that the treatment plant may serve, nor upon the hydraulic load that flows into the plant, nor the organic load in the influent. It imposes limits only upon the effluent. Furthermore, the actual hydraulic and organic loads are much less than they were assumed, in the original design, to be.

The “Purpose” clause of Rule 8.020 provides: “Deviation from minimum requirements will be allowed if sufficient documentation justifies the deviation.” The Staff submits there is ample justification for deviation from the minimum requirements, based upon the actual data that is now available.

CONCLUSION

As the holder of a certificate of convenience and necessity, Aqua is obliged to provide service to all customers in the Quail Valley Subdivision, within reasonable limitation. Based upon the actual loadings that exist at Quail Valley and the performance of the treatment plant there, the existing sewage treatment plant at Quail Valley is sufficient to provide service to the remaining 32 lots in the Quail Valley Subdivision. Even if it is not sufficient to provide such service, it is Aqua’s responsibility to expand the facilities as necessary, in accordance with its tariff now on file with the Commission. The Commission can require Complainants to make formal applications to Aqua and to otherwise comply with the tariff as a condition of ordering Aqua to allow additional connections.

WHEREFORE, the Staff submits its Initial Brief for the Commission’s consideration.

Respectfully submitted,

/s/ **Keith R. Krueger**

Keith R. Krueger
Deputy General Counsel
Missouri Bar No. 23857

Attorney for the Staff of the
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102
(573) 751-4140 (Telephone)
(573) 751-9285 (Fax)
keith.krueger@psc.mo.gov

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I hereby certify that copies of the foregoing have been mailed or hand-delivered,
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/s/ **Keith R. Krueger**