

**WUNDERLICH SURVEYING & ENGINEERING, INC.**

20 S. CHURCH STREET • P.O. BOX 536 • UNION, MO 63084 • (636) 583-8400 Fax: (636) 583-1810

June 27, 2003

Mr. Bob Atkinson P.E.  
Missouri Department of Natural Resources  
Public Drinking Water Program  
P.O. Box 176  
Jefferson City, Missouri 65102

Re: Franklin Co./ Village Greens Subdivision  
Review No. 61861-03  
PWS ID# MO6031382

Dear Mr. Atkinson:

Enclosed are two copies of the amended water distribution plan for Village Greens Subdivision. Mr. Rice intends to extend water service to Mt. Zion Church. Mt. Zion is currently being served by a private well which is metered and it uses between 500 to 700 gallons per day of water for their facilities. The private well will be abandoned in accordance with Mo-DNR guidelines after connection to Village Greens water system.

Parkway Village has expressed interest in using the well for Village Greens Subdivision to supply the village with water service. Per our phone conversation, you stated that the well is currently designated as a subdivision well and would have to be reclassified for the Village of Parkway to own and operate the well.

What steps would we be required to reclassify the well?

Could Mr. Rice provide the Village of Parkway with water from the well classified as a subdivision well?

Sincerely



Kirby Scheer  
Cc file

# VUNDERLICH SURVEYING & ENGINEERING, INC.

1 S. CHURCH STREET • P.O. BOX 536 • UNION, MO 63084 • (636) 583-8400 Fax: (636) 583-1810

June 24, 2003

Mr. Eual Heacox  
Missouri Department of Transportation  
District 6  
1590 Woodlake Drive  
Chesterfield, Missouri 63017

RE: Boring Under State Highway 30

Dear Mr. Heacox

Village Greens Water Company is proposing to cross State Highway 30 with a water line. This water line will be used to serve the church on the north side of State Highway 30. The boring will have steel casing from the north right-of-way line to the south right-of-way line.

Village Greens Water Company is owned and operated by Mr. Jay Rice. The water company has a permit to construct from the Missouri Department of Natural Resources, and has applied for a PSC license.

A copy of the proposed plan has been included for your review. If you have any questions on the plans, please contact our office. If any permit fees are required please contact Mr. Jay Rice at the following.

Mr. Jay Rice  
960 A Plaza Drive  
St. Clair, Missouri 63077

Office Phone 636 629 6565  
Mobile 314 574 6420

Sincerely



Kirby Scheer

RECEIVED JUN 16 2003

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

www.dnr.state.mo.us

June 12, 2003

Mr. Jay Rice  
Jay Rice Contracting  
960A Plaza Dr  
St. Clair, MO 63077

Franklin County  
NE SE SE Sec. 36, T42N, R1W  
Village Greens Subdivision  
community well

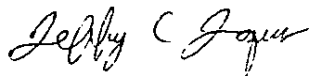
Dear Mr. Rice:

We have received and examined "well cuttings" to a depth of 375 feet from the above mentioned well. It is believed that a satisfactory casing depth has been reached at 365 feet. The casing depth was changed from the original recommendation of 320 feet due to a broken zone between 335 and 350 feet and green shale encountered between 355 and 360 feet. Before final approval of the casing depth is given, we must receive the rest of the cuttings to the total depth of the well, all casing information and the pump test data.

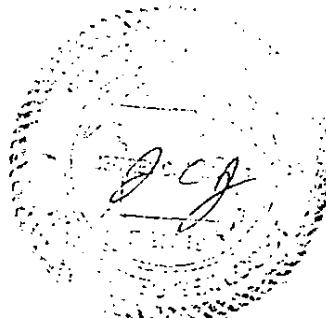
When I may be of further assistance, please do not hesitate to contact me.

Sincerely,

GEOLOGICAL SURVEY AND RESOURCE ASSESSMENT DIVISION



Jeffrey C. Jaquess  
Hydrologist  
Water Resources Program  
Groundwater Geology Section  
(573) 368-2190



June 12, 2003

JCJ/sh

c: Jerry Lane, WPSCD/PDWP  
Department of Natural Resources/St. Louis Regional Office  
Kathy Scheer, Wunderlich Surveying and Engineering, PO Box 536, Union, MO 63084  
Midwest Hydro Drilling



*Integrity and excellence in everything we do*



RECEIVED MAY 27 2003

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

www.dnr.state.mo.us  
P.O. Box 176, Jefferson City, MO 65102  
573/751-5331

CI  
Franklin Co./Village Greens Subdivision  
Review No. 61861-03  
PWS ID # MO6031382

May 15, 2003

Mr. Jay Rice, Owner/Developer  
Village Greens Subdivision  
960 A Plaza Drive  
St. Clair MO 63077

Dear Mr. Rice:

Enclosed is a Report on Plans and Specifications for the water system for the Village Greens Subdivision, Franklin County, near St. Clair, Missouri which I believe is self-explanatory.

I trust that consideration will be given to the recommendations contained in the report. While they are not a condition of the approval, they are based on experience to give a more trouble free operation of the water system.

Please be aware of the regulations that affect new public water systems commencing operation after October 1, 1999. All new community and non-transient non-community public water systems **commencing operation after October 1, 1999** must show, as part of their application for a "Construction Authorization and Permit to Dispense Water to the Public" that the proposed water system has the technical, managerial, and financial (TMF) capability to operate in compliance with drinking water regulations, and that a permanent organization exists which will serve as the continuing operating authority of the management, operation, replacement, maintenance and modernization of the facility. If your proposed facility is within the legal boundaries of an existing higher preference continuing operating authority, you must provide documentation that water service is not available from the existing higher preference continuing operating authority, or a statement from each existing higher preference continuing operating authority waiving its preferential status. Enclosed is a copy of the final rules 10 CSR 60-3.020 and 10 CSR 60-3.030 for your reference.



*Integrity and excellence in everything we do*



DEPARTMENT OF NATURAL RESOURCES  
OF MISSOURI

REPORT ON PLANS AND SPECIFICATIONS FOR A NEW WATER SYSTEM

Village Greens Subdivision  
Franklin County, Missouri

May 15, 2003

Review No. 61861-03

INTRODUCTION

Plans and specifications for a new water system for the Village Greens Subdivision just west of the intersection of Hwy. 30/47 and Hwy K in Franklin County, Missouri, were submitted for review and approval by Wunderlich Surveying and Engineering, Inc., consulting engineers, Union, Missouri.

BRIEF DESCRIPTION

In general, these plans and specifications provide for a new water system to serve the 73 lots of the Village Greens Subdivision. The proposed water system will be located in the SE ¼ of Section 36, T42N, R1W (38.33373 North, 90.96843 West) and will consist of a deep well, pressure tank storage and distribution system. The well is estimated to be 850 feet deep with 350 feet of 8-inch casing pressure grouted in place from the bottom upward in one continuous operation, and is estimated to yield at least 100 gallons per minute (GPM). A 20 horsepower submersible pump to pump 85 GPM is proposed to be installed in the well. A 12,000 gallon pressure tank is proposed with an air compressor to maintain a proper air/water ratio. The distribution system is to consist of approximately 4350 lineal feet of 6-inch SDR 21 Class 200 PVC pipe.

The necessary valves, fittings and appurtenances will be provided as per detailed plans and specifications. Before being placed in service, the new improvements will be pressure tested, flushed, and disinfected; and bacteriological samples will be collected for laboratory analysis.

RECOMMENDATION

It is recommended the well breather be modified and relocated to be a minimum 2-inch pipe located on the side of the casing. The breather pipe can be installed at an angle so long as the opening is at least 12 inches above the floor. If the drawdown is significant, the breather should be increased to a 3-inch pipe.

The pressure tank is designed to be full when the tank is ½ air and ½ water as opposed to the traditional 1/3 air and 2/3 water. Consideration should be given to the traditional system.



Robert Atkinson, P.E.  
Environmental Engineer  
Permits Section

APPROVAL TO CONSTRUCT

The engineering plans and specifications described above were examined as to sanitary features of design which may affect the operation of the sanitary works, including size, capacities of the units, and factors which may affect the efficiency and ease of operation. Approval as regards these points is hereby given.

Approval is given with the understanding that final inspection and approval of the completed works shall be made by the Department of Natural Resources before same is accepted and placed in operation. If construction is not commenced two (2) years after the date of issue or there is a halt in construction of more than two years, the approval to construct will be void unless an extension of time has been granted by the department.

In the examination of plans and specifications, the Department of Natural Resources, Public Drinking Water Program does not examine the structural features of design or efficiency of mechanical equipment. This approval does not include approval of these features.

The Department of Natural Resources, Public Drinking Water Program reserves the right to withdraw the approval of plans and

Project: Village Greens  
Review No. 61861-03  
PWS ID# MO6031382

The following comments are in response to the checklist for construction authorization and permit to dispense water to the public.

- Item 1 Two copies of the engineering report have been submitted for review.
- Item 2 Two copies of the detailed plans and specifications have been submitted for review.
- Item 3 An Application for Construction Authorization has been submitted

#### **Required Items for Technical Capacity Demonstration**

- Item 1 Mr. Robert Wideman of Wideman Well drilling will be the certified operator for this system.
- Item 2 The continuing authority will maintain as built plans for distribution system plans. The plans will be required to be updated after any new construction has occurred prior to final acceptance of the line by the continuing authority.
  - A.) Interim enhanced Surface Water Treatment Rule is not applicable
  - B.) LT-1 enhanced surface Water Treatment Rule is not applicable
  - C.) Ground Water Rule impacts were considered
  - D.) Disinfectants/disinfection By-Products Rule,
    - A separate room has been provided in case of possible chlorination requirements.
  - E.) Radon Rule can be met with minor modifications.
  - F.) Filter Backwash Rule is not applicable

#### **Design Guide Standards**

- Item 1 This system is intended to serve Village Greens which is a tract of land located in the southeast corner of section 36 township 42 north range 1 west of the 5<sup>th</sup> P.M. in Franklin county Missouri. Village Greens is a 73 lot residential subdivision. This subdivision is located in The Village of Parkway, and the village has no central water system. The City of St. Clair has a water line approximately 2,000 feet west of the proposed subdivision. However, St. Clair does not feel they have the capacity to serve this subdivision.
- Item 2 The area in which the subdivision is located is in The Village of Parkway and is not part of a water district. A letter of preferential status cannot be obtained.
- Item 3 Village Greens Water Company will serve Village Greens subdivision. It is possible for the system to serve the church across the street and it could be connected to The City of St. Clair lines in the future. See the water distribution plans for the proposed limits of the water distribution system.
- Item 4 One alternative would be individual wells or multiple residents connected to shared wells serving several homes. The chosen central water system will provide the best system.

Project: Village Greens  
Review No. 61861-03  
PWS ID# MO6031382

- Item 5 The source of water will be a deep well capable of delivering approximately 100 gallons per minute of flow. The quality of water is expected to meet the required MCL.
- Item 6 No treatment of the ground water is expected.
- Item 7 The well location is at the highest point of the subdivision. There are no current known sources of pollution for the well.
- Item 8 The estimated water use was assumed at 370 gallons per home. Because of the proposed pressure tank This system will not provided fire protection.
- Item 9 Future extension of the system is anticipated. When the system has reached its design limits additional storage will need to be added. When the pressure tank is removed the new storage will be able to provide fire flow in addition to more service connections. The system could be connected to The City of St. Clair's water distribution network and help provide better water service for the area to include the limits of The Village of Parkway.
- Item 10 Flow requirements were supplied with the engineering report. No fire flow will occur on this system at this time.
- Item 11 Wunderlich Surveying & Engineering will provide inspection of the water system and will supply a certification to the department.

**Required Items for Managerial Capacity Demonstration**

- Item 1 The owners intend to develop a company that will be responsible for the operation and maintenance of the water and sewer systems. They are currently in the process of forming this company. A copy of the recorded paper work will be forwarded to your office as soon as it is received
- Item 2 The Written Rate Structure and Service Fees will be publicly displayed. See attached copy.
- Item 3 Public meeting will be held prior to rate changes. Customers will be notified as to the meeting time and date. The rate structure will be reviewed in January of every year.
- Item 4 Managerial Capacity for future regulation impacts have been considered
- Item 5 See attached
- Item 6 See attached
- Item 7 See attached
- Item 8 See attached
- Item 9 An Operation Management Plan has been included
- Item 10 An Emergency Operation Plan has been included.
- Item 11 The water will be tested for MCL and brought into compliance prior to distributing water.

Project: Village Greens  
Review No. 61861-03  
PWS ID# MO6031382

**Required Items for Financial Capacity Demonstration**

- Item 1 Standard Accounting Principles and Practices will be used.
- Item 2 Legal action, disconnection, and late fees will be used in the event of non payment to the governing authority. The actions by the governing authority for non-payment will be publicly published with the rate structure. See attached.
- Item 3 The governing authority will perform an annual budget of revenue and expenditures with an annual comparison to the planned budget.
- Item 4 Written rate structure and service fee will be published publicly
- Item 5 See Attachment



### **RATE STRUCTURE**

\$28.00 per month minimum for 3,000 gallons water ~~minimum~~.  
\$2.00 per 1,000 gallons after minimum.

\$800.00 hook up fee. Must use remote read meter with check valve. May be purchased through district.

\$75.00 deposit - \$50.00 reconnect fee.

### **DISCONNECT POLICY**

All accounts over 30 days late are subject to disconnection. Disconnection will be posted on door of residence at least 3 days prior to disconnection. All reconnection will be subject to a fee.

### **ORGANIZATIONAL CHART**

President	Jay Rice
Vice President	Anna Rice
Treasurer	Jay Rice
Secretary	Anna Rice

960 A Plaza Drive  
St. Clair, MO 63077  
636-629-6565

Customer complaint should be addressed to Jay Rice, 960 A Plaza Drive, St. Clair, Missouri, 63077. All unresolved complaints should be submitted in writing describing problem. Problem will be investigated within seven days.

Compliance person - Bob Wideman  
Wideman Well Drilling 636-629-2881

MISSOURI PUBLIC WATER SYSTEM FINANCIAL CAPACITY WORKSHEETS

Financial Capacity Approved 3/23/03

REVISION NO. 6/18/01-03

COPY

Page 2: CAPITAL INVESTMENT / RESERVES WORKSHEET

Name: VILLAGE OF GARDEN WATER CO

Line No	DESCRIPTION	Year 2003	Year 2004	Year 2005	Year 2006	Year 2007
41	REVENUES AVAILABLE FROM CAPITAL IMPROVEMENTS AND RESERVES (LINE 42 FROM PAGE 1)	5785	72831	30852	41365	37885
42	OTHER FUND-BALANCE/ACCESS AVAILABLE					
43	OPERATION RESERVES					
44	Capital Contribution from Other/Donor/Loan Source					
45	Capital Contributions from Other/Donor/Other					
46	Grants					
47	Other/Debt (Application)					
48	Business Loans	0				
49	Proceeds from Capital of Other Reserves					
50	Other Fund Sources					
51	TOTAL SOURCE OF FUNDS (Lines 41 through 50)	5785	72831	30852	41365	37885
52	CAPITAL RESERVE USE OF FUNDS (In species of original request)					
53	Capital Improvement Plan Requirements					
54	New Capital Expenditures	0	0	0	0	0
55	Renewal and Replacement Facilities					
56	State Drinking Water Aid Facilities					
57	Healthcare Costs					
58	Other Use of Funds					
59	Total C/P Expenditures (Lines 53 through 58)	0	0	0	0	0
60	Other Obligations (Interest and Project Support)					
61	Requirement to Overfund/Overfund					
62	Requirement of Business Loans					
63	Requirement of State Loans					
64	Other Use of Funds					
65	Total Debt Obligations (Lines 60 through 64)	0	0	0	0	0
66	Proceeds from Other (Funds)					
67	Proceeds from Other (Funds)					
68	Proceeds from Other (Funds)					
69	Proceeds from Other (Funds)					
70	Proceeds from Other (Funds)					
71	Proceeds from Other (Funds)					
72	Proceeds from Other (Funds)					
73	TOTAL CAPITAL RESERVE EXPENDITURE (Lines 52, 65, 69, 71, 72)	400	400	400	400	400
74	REVENUE OF YEAR 2003 (Line 51, Line 73)	5385	72431	30452	37365	37485
75	Surplus or deficit is calculated after including reserves and capital investments	385	383	35	365	35
76	PROJECTED MONTHLY RESERVE/TOTAL BILL	0.8%	0.9%	0.8%	0.8%	0.7%
77	Current and expected monthly water rates calculated by number of residential customers (Line 74/20, line 11)	0.8%	0.9%	0.8%	0.8%	0.7%
78	TAFFORDABILITY INDEX (Annual Projected of Line 75/Line 3)	0.8%	0.9%	0.8%	0.8%	0.7%
79	Percent of monthly household income designated to water utility services (Rates Paid should not exceed 1.5 to 2.0%)	0.8%	0.9%	0.8%	0.8%	0.7%

Note: District consider the project financing costs and payback of loans since the developer will recover cost of construction through the sale of lots

Respective, Director approved

MISSOURI PUBLIC WATER SYSTEM FINANCIAL CAPACITY WORKSHEETS

Financial Capacity Approval Process

Water: **Village of Green's Water**

Note: Didn't include available equity cash balance since it is the developer's cash and this will be the financial budget applicable to the HOA

Rev. No. 61861-03

Trid #12

COPY

Line No.	Description	Year 1	Year 2	Year 3	Year 4	Year 5
1	UNCOLLECTED CUSTOMERS	10	30	30	70	50
2	AMOUNT RECEIVED IN CURRENT PER		200,000	68,670	40,000	14,250
3	3 MONTHLY PAYMENTS FOR SERVICE	3,000	51,500	130,450	54,950	38,775
4	REVENUES AND DEBITS					
5	PAYROLL	0	0	0	0	0
6	REVENUES RECEIVED					
7	Water Sales (exclusive of taxes on new customers)	42,000	126,000	31,000	30,400	33,800
8	Power and Service Charges	600	1,400	3,000	4,000	4,000
9	Marketing Charges	9,000	10,000	14,000	19,000	6,000
10	Other Expenses					
11	TOTAL REVENUES AVAILABLE TO HOA	129,000	346,200	46,000	49,800	49,800
12	OPERATING & MAINTENANCE EXPENSES					
13	Operating Expenses					
14	Salaries and Benefits	1,200	1,200	1,200	1,311	1,551
15	Power and other utility	600	800	1,500	1,200	1,200
16	Chemicals and Treatment	1,000	1,000	1,081	1,081	1,138
17	Depreciation Building Construction	1,200	1,200	1,278	1,311	1,356
18	Depreciation Structures and Piping	300	300	318	318	329
19	Transportation	0	0	0	0	0
20	Contractual Work	0	0	0	0	0
21	Contractual Report	0	0	0	0	0
22	Miscellaneous	0	0	0	0	0
23	Total Operating Expenses (Lines 14 through 22)	4,000	4,800	5,281	5,482	5,986
24	Interest on Debt					
25	Salaries and Benefits	1,200	1,200	1,200	1,311	1,551
26	Other Salaries and Benefits	300	300	318	318	329
27	Interest on Debt (Other than Operating Expense)	0	0	0	0	0
28	Interest on Debt (Other than Operating Expense)	0	0	0	0	0
29	Other Interest	0	0	0	0	0
30	Total Interest (Lines 24 through 29)	0	0	0	0	0
31	Depreciation	0	0	0	0	0
32	Other Depreciation	0	0	0	0	0
33	Total Depreciation and Amortization (Lines 31 and 32)	0	0	0	0	0
34	Total Operating and Maintenance Expenses (Lines 13 through 33)	4,000	4,800	5,281	5,482	5,986
35	Power Expenses	100	100	100	100	100
36	Other Operations, Fuel and Expenses	0	0	0	0	0
37	Interest Taxes	0	0	0	0	0
38	Other Taxes	0	0	0	0	0
39	Total Other Expenses (Lines 35 through 38)	100	100	100	100	100
40	TOTAL OPERATING EXPENSES (Lines 13, 34, and 39)	4,100	4,900	5,381	5,582	6,086
41	Operating Reserve	45	45	45	45	45
41a	Minimum Operating Reserve (Minimum initial capital 10% of line 40 over 10 yrs)	71	71	71	71	71
41b	Current Operating Reserve Needed	150	150	150	150	150
42	TOTAL EXPENSES (Includes Operating Reserves (Lines 41-41b))	796	796	796	796	796
43	TOTAL REVENUES FOR CAP & MAINTENANCE (Line 11, Line 42)	129,000	346,200	46,000	49,800	49,800

Please Go to Page 2  
This expense item is processed using both the inflation factor and increases in number of customers

## **Operational and Management Plan**

- 1.) Follow standard operating procedures as outlined in the Water Operator Guide for Potable Water System and the Drinking Water System Management Handbook as published by the EPA.
- 2.) The well system shall be checked on a weekly basis for proper operation of the system.
- 3.) The master meter shall be read weekly and recorded in a log book.
- 4.) Water samples shall be taken in accordance with Mo~DNR sampling guidelines and procedures
- 5.) If disinfection is required, the chlorine system shall be monitored on a weekly basis. Residual chlorine levels shall be determined on a monthly basis.
- 6.) This system has been designed for hands free operation only monitoring of the system is required.
- 7.) The water meter at each house shall be read once a month and compared to the total usage on the master meter for indications of leaks in the system.
- 8.) The operator shall be familiar with all current Mo~DNR regulations.
- 9.) A monthly report of the systems operation shall be prepared and submitted to the governing authority. This report should include total water usage, total billable water used, amount of chlorine used (if Required), and any obvious problems with the water system. The report should also contain the water quality findings from the previous month.
- 10.) Provide a Yearly Performance summary of the system. This report should include the major items mentioned in item 9 and any other items requested by the governing authority.
- 11.) The Operational and Management Plan should be reviewed every six months and as deemed necessary by the continuing authority.

May 1, 2003

Village Greens Water Company  
PWS ID Mo603182  
Review No. 61861-03

## **Emergency Operation Plan**

- 1.) The designate coordinator to be called under emergency conditions shall be the president of Village Greens Water Company.
- 2.) In the event of an emergency, the designated coordinator shall be authorized to expend funds to meet the existing emergency.
- 3.) A list of telephone numbers for the coordinator and key personnel are listed as follows:
  - a. Coordinator: Jay Rice 636 629-6565
  - b. Certified Operator: Bob Wideman 636 629-2881
  - c. Village Greens Water Company Maintenance personel: Jay Rice 636 629-6565.

This list shall be updated quarterly or immediately after a position change has occurred.

- 4.) In the event the water system becomes incapacitated, Tank Trucks can be utilized to provided water to the system. The closest municipal water system would be The City of St. Clair. The City of Union or The City of Sullivan could also provide water.
- 5.) The connection of the tank truck could be made through the pump to waste line. This connection will require a booster pump to be to provide service to the hydro-pneumatic tank. In the event the hydro-pneumatic tank fails, a pressure tank will need to be obtained as soon as possible. Until a pressure tank is obtained the system will be out of service.
- 6.) The connection to pipe the booster pump shall be provided. Access to the booster pump within 24 hours should be provided. 24 hour access to the control equipment should also be provided.
- 7.) Written emergency procedures should be obtained from the department of natural resources for tank truck disinfection and emergency chlorination of the system. These procedures should be obtained prior to distributing water and they should be attached to this document.

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
FAX Transmittal Cover Sheet



<input type="checkbox"/>	URGENT
<input type="checkbox"/>	Priority
<input type="checkbox"/>	Routine
<input checked="" type="checkbox"/>	As Requested
<input type="checkbox"/>	FYI

Date of Fax: 4-23-03

To: Cindy Bay  
Jay Rice Contracting

From: Deana Cash  
PDWP

X: 636 629 6767 Phone: 636 629-6565

FAX: 573 751-3110 Phone: 573 751-4988

SUBJECT: Financial Capacity

COMMENTS: Add name of development in space for Name on each page.

note: One spreadsheet considers costs of project development & payback of loans. The other does not. Since this will be a Homeowners Association and the costs of development will be covered by the sell of lots by the developer, I recommend using  
trial #2

RESPONSE EXPECTED: include w/ the response to the comment letter.

Total # of pages sent (including transmittal sheet): 5

If problems with FAX call: Above

COPY

**COPY**

## **RATE STRUCTURE**

\$28.00 per month minimum for 3,000 gallons water ~~minimum~~.  
\$2.00 per 1,000 gallons after minimum.

\$800.00 hook up fee. Must use remote read meter with check valve. May be purchased through district.

\$75.00 deposit - \$50.00 reconnect fee.

## **DISCONNECT POLICY**

All accounts over 30 days late are subject to disconnection. Disconnection will be posted on door of residence at least 3 days prior to disconnection. All reconnection will be subject to a fee.

## **ORGANIZATIONAL CHART**

President	Jay Rice
Vice President	Anna Rice
Treasurer	Jay Rice
Secretary	Anna Rice

960 A Plaza Drive  
St. Clair, MO 63077  
636-629-6565

Customer complaint should be addressed to Jay Rice, 960 A Plaza Drive, St. Clair, Missouri, 63077. All unresolved complaints should be submitted in writing describing problem. Problem will be investigated within seven days.

Compliance person - Bob Wideman  
Wideman Well Drilling 636-629-2881

RECEIVED MAR 13 2003

STATE OF MISSOURI      Bob Holden, Governor • Stephen M. Mahfood, Director  
**DEPARTMENT OF NATURAL RESOURCES**

www.dnr.state.mo.us  
P.O. Box 176, Jefferson City, MO 65102  
573/751-5331

AR  
Village Greens  
Review No. 61861-03  
PWS ID # MO6031382

March 5, 2003

Mr. Jay Rice, Owner/Developer  
Village Greens  
960 A Plaza Drive  
St. Clair, MO 63077

Dear Mr. Rice:

We are advising that detailed plans, specifications and an engineering report for a well and waterline extension for Village Greens, Franklin County, Missouri, were submitted by Wunderlich Surveying & Engineering, consulting engineers, Union, Missouri, on March 3, 2003. Please make reference to Review Number 61861-03 when submitting documents pertinent to this proposal.

A field survey and review of the documents will be made as rapidly as possible. Approximately forty-five days are required by our staff to review the preliminary plans, and process and discuss possible changes with your engineers. You will be advised in writing of our approval of the proposals set forth in the documents.

A copy of the regulations regarding submission of plans and approval of water works is enclosed. Please note that regulations provide that our approval of the project must be secured in writing before construction work is started. This approval is your assurance that the proposed work complies with requirements of this Division.

You will receive copies of our report and approval of the documents for the proposed work, and this report will serve as your authorization to award contracts and begin construction.

Please be aware of the regulations that affect new public water systems commencing operation after October 1, 1999. All new community and non-transient non-community public water systems **commencing operation after October 1, 1999** must show, as part of their application for a "Construction Authorization and Permit to Dispense Water to the Public" that the proposed water system has the technical, managerial, and financial (TMF) capability to operate in compliance with drinking water regulations, and that a permanent organization exists which will serve as the continuing operating authority of the management, operation, replacement, maintenance and modernization of the facility. If your proposed facility is within the legal boundaries of an existing higher preference continuing operating authority, you must provide documentation that water service is not available from the existing higher preference continuing operating authority, or a statement from each existing higher preference continuing operating authority waiving its preferential status. Enclosed is a copy of the final rules 10 CSR 60-3.020 and 10 CSR 60-3.030 for your reference.

*Integrity and excellence in all we do*





The minimum TMF Capacity of this proposed public water system will be assessed during the engineering review process for the Construction Authorization. Enclosed is a Checklist for the TMF Capacity Requirements. Please complete the Checklist and address all items that have not been provided. You will also need to sign and return the enclosed form entitled "Owner's Acknowledgement of requirements to Obtain a Permit to Dispense."

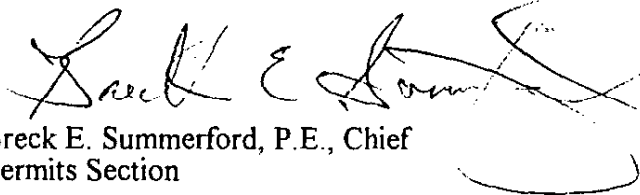
When construction of your public water system is complete and you are ready to place it into operation, you must notify this office. At that time, you will need to provide a copy of your engineer's certification that all of your public water system facilities have been constructed in accordance with approved plans and specifications. You will also need to provide the necessary documentation to demonstrate that all TMF Capacity requirements have been met.

Note that all of the requirements for TMF Capacity, as listed on the enclosed Checklist, will be assessed prior to our issuance of a Permit to Dispense Water to the Public for this facility. If you have any questions regarding the TMF Capacity, please feel free to contact Ms. Deana Cash of this Program at (573) 751-4988.

Please be advised, this facility may be required to obtain other permits from the Water Pollution Control Program. It is your responsibility to insure that any and all necessary permits for this facility have been obtained. You should apply directly to that program for any necessary permits.

Sincerely,

PUBLIC DRINKING WATER PROGRAM



Breck E. Summerford, P.E., Chief  
Permits Section

BES:mw

Enclosures

c: Wunderlich Surveying & Engineering  
St. Louis Regional Office  
Deana Cash, PDWP  
Larry Dusenberg, PDWP  
Stephen Jones, PDWP  
GSRAD  
PSC



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
PUBLIC DRINKING WATER PROGRAM  
APPLICATION FOR A CONSTRUCTION PERMIT

P.O. BOX 176  
JEFFERSON CITY, MO 65107

DNR USE ONLY	
REV. NO.	
DATE RECD.	
DATE APPD.	

**INSTRUCTIONS**

- A. Please type or print in ink.
- B. A completed and signed application form must accompany each set of plans and specifications that is submitted to the department for review and approval.
- C. No fee is required for a construction permit.
- D. Please direct inquiries to the above address or call (573) 751-5924.

1. NAME OF PROJECT (TYPE OF CONSTRUCTION, FOLLOWED BY EITHER THE NAME OF DEVELOPMENT, CITY, WATER DISTRICT OR OTHER.)

Village Greens

**NOTE FOR NUMBER 2** ▶ FOR A SOLE PROPRIETORSHIP - THE NAME OF THE PROPRIETOR, FOR A CORPORATION - THE NAME OF AN OFFICER OF AT LEAST THE LEVEL OF A PLANT MANAGER, FOR A PARTNERSHIP - THE NAME OF A PRINCIPAL PARTNER; FOR A CITY, STATE, FEDERAL OR OTHER PUBLIC FACILITY - THE NAME OF EITHER A PRINCIPAL EXECUTIVE OFFICER OR A RANKING PUBLIC OFFICIAL.

2. OWNER OR OFFICIAL CUSTODIAN  
Jay Rice Contracting

TELEPHONE NUMBER  
(636) 629-6565

ADDRESS  
960 A Plaza Drive

CITY  
St. Clair

STATE  
MO

ZIP CODE  
63077

3. LIST OF DOCUMENTS SUBMITTED (CHECK APPROPRIATE BOX OR BOXES. TWO COPIES ARE REQUIRED FOR EACH DOCUMENT.)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> ENGINEERING REPORT*<br>IF THE REPORT IS APPROVED, WRITE THE<br>REVIEW NUMBER OF THE REPORT _____ | <input type="checkbox"/> HYDRAULICS ANALYSIS*                    |
| <input checked="" type="checkbox"/> DETAILED PLANS*  | <input type="checkbox"/> PRODUCT/EQUIPMENT LITERATURE            |
| <input checked="" type="checkbox"/> TECHNICAL SPECIFICATIONS*  | <input type="checkbox"/> LETTER OF ACCEPTANCE FROM SUPPLY SOURCE |
| <input checked="" type="checkbox"/> LAYOUT MAP*  | <input type="checkbox"/> OPERATION AND MAINTENANCE MANUAL        |
|  | <input type="checkbox"/> OTHER (SPECIFY) _____                   |

\*MUST BE AFFIXED WITH THE PROFESSIONAL ENGINEER'S SEAL.

4. PROJECT IS FOR

- DEVELOPMENT OF NEW WATER SUPPLY SYSTEM
- MODIFICATION OF EXISTING WATER SUPPLY SYSTEM

5. SCOPE OF THE PROJECT (DESCRIBE THE PROJECT COMPLETELY. ATTACH ADDITIONAL SHEETS IF NECESSARY.)

Drilling of a community well and installation of approximately, 4,350 feet of 6" SDR 21 Class 200 PVC Pipe to serve a 73 lot residential subdivision.

6. LOCATION OF PROJECT: U.S. GEOLOGICAL SURVEY LOCATION SE 1/4 SE 1/4, SECTION 36, T 42N, R 1W  
Franklin COUNTY, MISSOURI

MAILING ADDRESS (IF OUTSIDE CITY BOUNDARIES, INCLUDE NAME OF NEAREST CITY)

In the Village of Parkway west of the intersection of Hwy. "30" and Hwy. "K"

7. PROPOSED WATER SUPPLY SOURCE

- WELL OR WELLS
- STREAM, RIVER, LAKE, OR RESERVOIR (TWO-STATE TREATMENT IS REQUIRED)
- EXISTING WATER SUPPLY SYSTEM

IDENTIFICATION NUMBER \_\_\_\_\_

NAME OF OWNER OR OFFICIAL CUSTODIAN \_\_\_\_\_

ADDRESS \_\_\_\_\_

TELEPHONE \_\_\_\_\_

LINE SIZE AT POINT OF CONNECTION \_\_\_\_\_

AVAILABLE FLOW AND PRESSURE \_\_\_\_\_

- OTHER (SPECIFY) \_\_\_\_\_

8. WATER LINES

COMPLETE DISTRIBUTION SYSTEM

WATER LINE RELOCATION/REPLACEMENT

WATER LINE EXTENSION

OTHER (SPECIFY) \_\_\_\_\_

9. PROPOSED TREATMENT PROVIDED

CLARIFICATION N/A

RADIONUCLIDE REMOVAL

PRE-SEDIMENTATION

TSS CONTROL

CHEMICAL RAPID MIXING

VOC REMOVAL

FLOCCULATION

TASTE AND ODOR CONTROL

SEDIMENTATION

FILTRATION

OTHERS (SPECIFY) \_\_\_\_\_

STABILIZATION

SOFTENING

DISINFECTION

LIME OR LIME SODA PROCESS

CHEMICALS USED \_\_\_\_\_

ION EXCHANGE PROCESS

CONTACT TIME \_\_\_\_\_

IRON AND MANGANESE REMOVAL

FLUORIDATION

OXIDATION-DETENTION-FILTRATION

OTHERS (SPECIFY) \_\_\_\_\_

LIME/LIME-SODA SOFTENING PROCESS

ION EXCHANGE

MANGANESE GREENSAND FILTRATION

SEQUESTRATION BY CHEMICALS

OTHERS (SPECIFY) \_\_\_\_\_

10. STORAGE

DIMENSION 10' Dia. x 21' Long CAPACITY 12,000 Gal.

GROUND-LEVEL STORAGE TANK

PRESSURE TANK

ELEVATED STORAGE TANK

OTHERS (SPECIFY) \_\_\_\_\_

STANDPIPE

11. PUMPING

NUMBER OF PUMPS 1

CAPACITY/PUMP 100 gpm

LOW SERVICE PUMPING

HIGH SERVICE PUMPING

BOOSTER PUMPING

OTHER (SPECIFY) \_\_\_\_\_

12. WASTE DISPOSAL FACILITIES

NUMBER OF UNITS \_\_\_\_\_

CAPACITY/UNIT \_\_\_\_\_

PUMPS AND PIPING N/A

HOLDING STRUCTURES

TREATMENT UNIT

OTHER (SPECIFY) \_\_\_\_\_

FINAL DISPOSAL OF SLUDGE \_\_\_\_\_

13. OTHER WATER WORKS (SPECIFY)

N/A

I CERTIFY THAT THE INFORMATION ENTERED IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE AND IF GRANTED A PERMIT, THE CONSTRUCTION OF THIS PROJECT WILL BE IN ACCORDANCE WITH THE FINAL PLANS AND SPECIFICATIONS APPROVED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES.

SIGNATURE OF OWNER OR OFFICIAL CUSTODIAN

DATE

*James J. [Signature]*

2-25-03

RECEIVED NOV 14 2002

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

P.O. Box 250 111 Fairgrounds Rd. Rolla, MO 65402-0250  
(573) 368-2100  
FAX (573) 368-2111

November 12, 2002

Mr. Jay Rice  
Jay Rice Contracting  
960A Plaza Dr  
St. Clair, MO 63077

Franklin County  
NE SE SE Sec. 36, T42N, R1W  
Village Greens Subdivision  
community well

Dear Mr. Rice:

This letter is regarding a request for information from Wunderlich Surveying and Engineering on your behalf concerning a community (public) well at the above location in Franklin County on the St. Clair quadrangle.

Since this well is to be a public water supply well, construction of the well must conform to the standards of the Department of Natural Resources' Water Protection and Soil Conservation Division, as outlined in their publication Design Guide for Community Public Water Supplies 10 CSR 60-3, 10 CSR 60-10.

One requirement of the Department of Natural Resources' Water Protection and Soil Conservation Division is that the engineer's plans and specifications for water works projects are submitted to them for their review and approval before the start of construction. If the completed project does not conform to the published standards, a Permit of Approval cannot be issued as provided for in Part VI, Book V of the Sanitary Code, a part of the Regulations developed under Section 640.115 - 10 CSR 60 - 10.010, Revised Statutes of Missouri.

Copies of the Regulations and Design Standards are available upon request from Water Protection and Soil Conservation Division, Public Drinking Water Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

One other requirement for such a water supply is that this office determines the well casing depth. The required casing depth for a well at this location is estimated to be 320 feet and into the Lower Gasconade Dolomite. This is based on a surface elevation of 750 feet above sea level. To help in establishing a final approved casing depth, rock cuttings must be submitted to the total depth of the well. In this instance it could be to your advantage to have a "pilot hole" drilled to total depth before casing is set and grouted. In this way, the casing depth could be approved with good data and you would be assured that no surprises would occur below the final casing depth. The casing (19 pound or equivalent weight per foot for a 6 inch hole, for example) must be placed into a drill hole that is a nominal four (4) inches larger in diameter, and then pressure grouted (Haliburton method or equivalent). Once the grouting is complete, operations must be suspended for a minimum period of seventy-two (72) hours. Pressure grouting of the casing is to be witnessed by the department's Regional Office personnel in St. Louis at 314/ 416-2970 (please give 48 hours notice of intent to grout).

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A total drilled depth of 800 to 850 feet should bottom the well in the Derby-Doerun Dolomite, which will fully penetrate the Ozark aquifer. This depth should furnish you with approximately 100+ gallons of water per minute (gpm). In order to obtain the target yield of 155 gpm, it would be necessary to drill to approximately 1,360 to 1,400 feet to the Lamotte Sandstone. However, yields are unpredictable in this area and sometimes water quality becomes a problem at the greater depth.

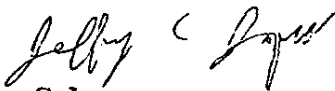
Persons in Missouri with a well or wells capable of producing at least 100,000 gallons per day (70 gallons per minute) are required to register as major water users. Should the proposed well be capable of producing that amount, it will be necessary for the well owner to file a form each year showing water use for the preceding year. Should you have any questions concerning major water use or the purpose of identification of high-yield wells, please feel free to contact Jeanette Barnett at (573) 368-2188 or at this letterhead address.

Since passage of the Water Well Drillers Act (RSMo 256.600, effective October 1, 1986) it is a legal requirement that all water wells be drilled and pumps installed by persons permitted by the Department of Natural Resources' Geological Survey and Resource Assessment Division. It is in your best interests to contract with a permitted water well driller/pump installer to complete your well installation. The law also requires that all new wells (or old wells that need major reconstruction) must be registered and a Water Well Record completed on each well. A \$35.00 fee, which is to be paid by the well owner, must accompany the completed form. The well driller and well owner must sign the form, and a copy returned to this office by the well driller. You will receive a tag and a card with a registration number upon our receipt of the form and fee.

When I may be of further assistance, please do not hesitate to contact me.

Sincerely,

GEOLOGICAL SURVEY AND RESOURCE ASSESSMENT DIVISION



Jeffrey C. Jaquess  
Hydrologist  
Water Resources Program  
Groundwater Geology Section  
(573) 368-2190



November 12, 2002

JCJ/sh

c: Jerry Lane, WPSCD/PDWP  
Department of Natural Resources/St. Louis Regional Office  
Kirby Scheer, Wunderlich Surveying and Engineering, PO Box 536, Union, MO 63084