

Septic Services  
MOG823056/CP0001516  
Franklin County



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

FEB 03 2015

Mr. Dave Flagg  
Septic Services  
P.O. Box 632  
Union, MO 63084

RE: Soil Absorption System-Septic Services Treatment Facility, MO-G823056, Construction Permit No. CP0001516, Construction Permit Time Extension

Dear Mr. Flagg:

The Department of Natural Resources, Water Protection Program, received a construction permit extension request on December 5, 2014, for Septic Services, Inc. The request for additional time for Construction Permit Number CP0001516 has been granted for a period of 24 months and will expire March 18, 2017. This permit extension authorizes construction of the facilities described on the permit dated March 19, 2014. This construction permit extension does not supersede any requirements of the operating permit or enforcement actions.

In accordance with 10 CSR 20-6.010(4)(G), the Department can only grant time extensions once. Thus, if the project is not complete by March 18, 2017, the applicant must submit a new construction permit application and fee.

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to 10 CSR 20-1.020 and Section 621.250, RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Contact information for the AHC is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, Phone: 573-751-2422, Fax: 573-751-5018, and Website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).

Septic Services  
MOG823056/CP0001516  
Franklin County  
Page 2

If you have any questions concerning this matter, please contact Mr. Andrew Appelbaum, of the Water Protection Program, at (314)-416-2062 or Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



John Madras  
Director

JM:aan

Enclosure

c: Mr. Kirby Sheer, P.E., Sheer Design Group, LLC  
St. Louis Regional Office

Septic Services  
MOG823056 CP0001516, Franklin County

STATE OF MISSOURI  
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director  
**DEPARTMENT OF NATURAL RESOURCES**

[www.dnr.mo.gov](http://www.dnr.mo.gov)

**MAR 19 2014**

Dave Flagg  
Septic Services  
P.O. Box 632  
Union, MO 63084

RE: AP# 11370, Soil Absorption System-Septic Services Treatment Facility, MO-G823056,  
Construction Permit No. 0001516

Dear Mr. Flagg:

The Missouri Department of Natural Resources' (Department) Water Protection Program has reviewed and approved the plans and specifications submitted by Sheer Design Group, LLC, for Septic Services. Please find enclosed Construction Permit No. CP0001516.

This permit will terminate 12 months from the date of issuance. In accordance with 10 CSR 20-6.010(4)(G), the Department may grant an extension only one time. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the permit expiration date.

This construction permit does not supersede any requirements of the operating permit or enforcement actions. Nothing in this permit removes any obligations to comply with county or other local ordinances or restrictions.

If you were adversely affected by this decision, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with the Administrative Hearing Commission within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the Administrative Hearing Commission.



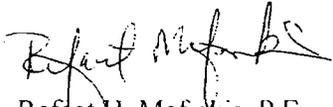
Recycled Paper

If you have any questions concerning this matter, please contact Andrew Appelbaum, of the Water Protection Program, at (314) 416-2062 or Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102-0176.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



Refaat H. Mefrakis, P.E.  
Engineering Section Chief

RHM:ig

Enclosures

c: Kirby Sheer, P.E., Sheer Design Group, LLC  
St. Louis Regional Office

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION



## CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Dave Flagg  
Septic Services  
P.O. Box 632  
Union, MO 63084

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

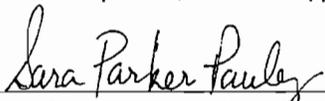
As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

March 19, 2014  
Effective Date

March 18, 2015  
Expiration Date

  
Sara Parker Pauley, Director, Department of Natural Resources

  
Director of Staff, Clean Water Commission or Designee

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

Modification to an existing five cell lagoon by conversion to a no-discharge soil absorption system; flow will be intercepted after the fifth cell. A single pass sand filter with a surface area of 1750 square ft., split into eight distribution zones, preceded by a dosing tank with two Polylok PL-625 filters, and two Hydromatic Model SHEF45 submersible pumps each having a capacity of 20 GPM at a TDH of 35 feet; a 7000 gallon dosing/equalization tank, two Orenco Model PF 500712 effluent pumps, each with a discharge rate of 20 gpm at a TDH of 76 feet, 2-inch force main to the distribution valves and laterals, a five-way pressure distribution valve, five drainfields each with four 500 foot long laterals, five four-way pressure distribution valves, laterals will be gravelless trench with 4-inch perforated sock pipe distribution set 12 inches below the surface. And all the necessary appurtenances to make the facilities complete and usable to treat the waste from a population equivalent of 60, with an average daily flow of 6000 gallons per day. This is a non-discharging facility to be located in the SW 1/4, of the SE 1/4, of Section 35, T43N, R1W, Franklin County, Missouri. (MO-G823056)

Drainfield approximate location: UTM (zone 15) X=675100, Y=425100

### **II. FINDING OF AFFORDABILITY**

The Finding of Affordability is not applicable. The permittee is not a combined or separate sanitary sewer system or a publicly owned treatment works.

### **III. CONSTRUCTION PERMIT CONDITIONS**

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be in accordance with the plans and specifications submitted by Sheer Design Group LLC, on February 27, 2014.
3. The Department must be contacted in writing prior to making any changes to the approved plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(8).
4. State and Federal Law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's St. Louis Regional Office per 10 CSR 20-7.015(9)(E)2.

5. This Construction Permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans"
6. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."
  - A. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
  - B. Sewer mains shall be laid at least ten feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a ten foot separation, the Department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
  - C. Manholes should be located at least ten feet horizontally from any existing or proposed water main.
  - D. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:
    - a. The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
    - b. Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends ten feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the Department for use in water main construction.
7. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri State Operating Permit to discharge stormwater. The permit requires Best Management Practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at [www.dnr.mo.gov/env/wpp/epermit/help.htm](http://www.dnr.mo.gov/env/wpp/epermit/help.htm). See [www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm) for more information.

8. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See [www.dnr.mo.gov/env/wpp/401/](http://www.dnr.mo.gov/env/wpp/401/) for more information.
9. The existing chlorination structure and outfall is hereby authorized to be closed in accordance with the submitted plans. The chlorine contact tank is to be removed and the outfall pipe is to be capped. Form J – Request for Termination of a State Operating Permit, shall be submitted to the Department's Central Office for termination of Missouri State Operating Permit, MO-0116777 once closure is completed in accordance with the approved closure plan.
10. Upon completion of construction;
  - A. Submit the enclosed form Statement of Work Completed to the Department In accordance with 10 CSR 20-6.010(5)(D);
  - B. Submit an electronic copy of the as-builts if the project was not constructed in accordance with previously submitted plans and specifications; and
  - C. Submit Form J – Request for Termination of a State Operating Permit for termination of MO-0116777.

#### **IV. REVIEW SUMMARY**

##### **1. AMMONIA**

The Water Protection Program is providing this notice to inform permittees that EPA's published ammonia criteria for aquatic life protection is lower than the current Missouri criteria and will be proposed in a future Missouri Water Quality Standards triennial review. More information can be found at <http://dnr.mo.gov/pubs/pub2481.pdf>.

By converting to a no-discharge system you have taken a significant step to protecting Missouri's waters. We applaud you for this important decision. The new ammonia criteria is not anticipated to have ramifications to your no-discharge system.

## **2. CONSTRUCTION PURPOSE**

This project will eliminate the discharge from a septage treatment lagoon system. All effluent from the lagoon will be further treated with a sand filter then will be disposed in a soil absorption system.

## **3. FACILITY DESCRIPTION**

The existing treatment system consists of a primary clarifier, an aerated lagoon system with four aerated cells and one quiescent cell, and tablet chlorination with a chlorine contact chamber.

The new on-site wastewater and disposal system will have a design flow of 6000 GPD. It will maintain the existing clarifier and lagoon system. The chlorination system will be removed. Following the fifth lagoon cell water will pass through a Polylok PL-625 filter then be dosed through a single pass sand filter. Water will then be dosed to a soil absorption system consisting of five separate fields, each field having four separate laterals; only one lateral will be dosed at a time. At design flow, each lateral will be dosed 4 times per day.

## **4. COMPLIANCE PARAMETERS**

The existing treatment system is covered under Operating Permit MO-0116777. The system is unable to consistently meet ammonia limits contained in the permit. Since the new facility is a no-discharge system this problem will be alleviated.

## **5. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

10 CSR 20, Chapter 8 applies to the general design of these wastewater works. However most of the specific design is not covered by Clean Water Commission regulations. The existing lagoon discharge consistently had effluent that was below 30 mg/l for BOD and TSS. The Polylok PL-625 filter and the single pass sand filter will further reduce the solids content with the intention of protecting the soil absorption system. The sand filter is design based on a loading rate of 3.6 gpd/square ft. The absorption system will be dosed at 75 gallons per dose. A flow equalization volume of approximately 7000 gallons will be available to ensure dosing is not more frequent than the intended design. There will be 5 absorption fields with 4 laterals at each field. Only one lateral will be dosed at a time. A lateral will not be dosed more than 4 times per day. The soil absorption sites were evaluated by Mr. John Bauer, Soil Scientist with On-Site Soils, Inc. Three soil pits were evaluated to a depth of 3 feet and the soils were given detailed soil descriptions. Soil descriptions include: munsell color, texture, structure, consistence, and soil group, along with recommended application rates. All sites to be used have soils that are in soil group III. The design loading rate is 0.3 gallons/square ft./day. The recommended loading rates at 12 inches ranged from 0.3 to 0.5 gallons/square ft./day. The laterals will be gravelless trench with 4-inch perforated sock pipe distribution set 12 inches below the surface, the trench width is considered to be equivalent to 24 inches; the trenches are at least an average of 10 feet apart. The total absorption area will be 20,000 square feet (500 ft. X 2 ft. X 20).

**6. OPERATING PERMIT MODIFICATION**

Operating permit MO-0116777 may be terminated after completion of this project. A no-discharge wastewater disposal system is required to have an Operating Permit if it has a design flow of 3000 GPD or greater. This facility will be covered by permit MO-G823056. Land application of sludge is currently covered by permit MO-G821024. Permit MO-G821024 may be terminated upon issuance of MO-G823056, since such activities are sufficiently covered by the MO-G823 general permit. Permit MO-G821024 is not required to be terminated.

Review Engineer: Andrew G. Appelbaum, P.E.  
Unit Chief Approval: Refaat Mefrakis  
Date: 03/04/14



RECEIVED  
DEC - 5 2014  
MO DEPT. NATURAL RESOURCES  
ST. LOUIS REGIONAL OFFICE  
Service is Our Business

**SEPTIC SERVICES, INC.**

INSTALLATION • PUMPING • PORTABLE TOILET RENTAL • AERATOR SALES & SERVICE

Tel: 636-583-5564  
Toll free: 800-536-5564  
Fax: 636-583-6432  
Mailing: P.O. Box 632, Union, MO 63084  
Shipping: 7059 Highway 47 Union, MO 63084  
Email: [install@septicsev.com](mailto:install@septicsev.com)  
Web: [www.septicsev.com](http://www.septicsev.com)

December 4, 2014

MO Dept. of Natural Resources  
7545 South Lindbergh  
St. Louis, MO 63125  
Attn: Andrew Appelbaum  
314-416-2062

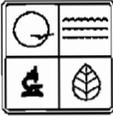
RE: Construction Permit #CP0001516/MO-G823056

Mr. Appelbaum

Due to the current weather conditions and the nature of the system upgrade, I would like to request a 24 month extension of the construction permit.

Sincerely,

David C. Flagg Jr. – President  
Septic Services, Inc.



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM

**APPLICATION FOR CONSTRUCTION PERMIT  
WASTEWATER TREATMENT FACILITY**

RECEIVED

APR 29 2013

MO-0116777 HP 11010  
CP0001516

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
4129/132	47650
DATE RECEIVED	\$750.00 JS

WATER PROTECTION PROGRAM

**APPLICATION OVERVIEW**

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. All applicants must complete Part A. Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.

**PART A – BASIC INFORMATION**

**1.0 APPLICATION INFORMATION** (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project?  YES  N/A Funding Agency: \_\_\_\_\_ Project #: \_\_\_\_\_
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
 YES Date of Approval: \_\_\_\_\_  
 Attached is the No Degradation Evaluation Conclusion of Antidegradation Review form
- 1.3 Has the department approved the proposed project's facility plan\*?  
 YES Date of Approval: \_\_\_\_\_  NO  N/A (if Not Applicable, complete No. 1.4.)
- 1.4 [Complete only if answered Not Applicable on No. 1.3.] Is a copy of the engineering report\* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?  
 YES  NO
- 1.5 Is a copy of the appropriate plans\* and specifications\* included with this application?  
 YES Denote which form is submitted:  Hard copy  Electronic copy (See instructions.)  NO
- 1.6 Is a summary of design\* included with this application?  YES  NO
- 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?  
 YES Date of submittal: \_\_\_\_\_  
 Enclosed is the appropriate operating permit application submittal. Denote which form:  A  B  B2  
 N/A Please explain: \_\_\_\_\_
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency?  YES  NO
- 1.9 Is the appropriate fee included with this application?  YES  NO (See instructions for appropriate fee.)

\* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT

Septic Services, Inc.

2.2 PROJECT DESCRIPTION

The addition of an absorption field to create a non-discharging system out of an existing discharge.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION

Land applied under owners permit for such activities.

2.4 DESIGN INFORMATION

- A. Current population: \_\_\_\_\_; Design population: 60
- B. Actual Flow: \_\_\_\_\_ gpd; Design Average Flow: 6000 gpd;  
Actual Peak Daily Flow: \_\_\_\_\_ gpd; Design Maximum Daily Flow: 6000 gpd

2.5 ADDITIONAL INFORMATION

- A. Is a topographic map attached?  YES  NO
- B. Is a process flow diagram attached?  YES  NO

**3.0 WASTEWATER TREATMENT FACILITY**

NAME septic services		TELEPHONE NUMBER WITH AREA CODE (636) 583-5564		E-MAIL ADDRESS	
ADDRESS (PHYSICAL) 7059 Hwy 47		CITY Union	STATE Mo	ZIP CODE 63084	COUNTY Franklin
Wastewater Treatment Facility: Mo- 0116777 (Outfall Of )					
3.1 Legal Description: NE 1/4, SW 1/4, SE 1/4, Sec. 35, T 43N, R 1W (Use additional pages if construction of more than one outfall is proposed.)					
3.2 UTM Coordinates Easting (X): 3825386 Northing (Y): 09059316 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)					
3.3 Name of receiving streams: unnamed tributary of Bourbeuse River					

**4.0 PROJECT OWNER**

NAME Dave Flagg		TELEPHONE NUMBER WITH AREA CODE (636) 583-5564		E-MAIL ADDRESS	
ADDRESS PO Box 632		CITY Union	STATE MO	ZIP CODE 63084	

**5.0 CONTINUING AUTHORITY:** Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.

NAME Same as Above		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS	
ADDRESS		CITY	STATE	ZIP CODE	

- 5.1 A letter from the continuing authority, if different than the owner, is included with this application.  YES  NO  N/A
- 5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.
- A. Is a copy of the certificate of convenience and necessity included with this application?  YES  NO
- 5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.
- A. Is a copy of the as-filed restrictions and covenants included with this application?  YES  NO
- B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application?  YES  NO
- C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application?  YES  NO
- D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application?  YES  NO

**6.0 ENGINEER**

ENGINEER NAME / COMPANY NAME Kirby Scheer / Scheer Design Group, LLC		TELEPHONE NUMBER WITH AREA CODE (573) 459-2611		E-MAIL ADDRESS kirbs@fidnet.com	
ADDRESS 8584 Hwy YY		CITY New Haven	STATE Mo	ZIP CODE 63068	

**7.0 PROJECT OWNER:** I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.

PROJECT OWNER SIGNATURE 		DATE 4/15/13	
PRINTED NAME DAVID C FLAGG JR			
TITLE OR CORPORATE POSITION PRESIDENT		TELEPHONE NUMBER WITH AREA CODE 636-583-5564	
		E-MAIL ADDRESS	

Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
P.O. BOX 176  
JEFFERSON CITY, MO 65102-0176

**END OF PART A.**  
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.**

**PART B – LAND APPLICATION ONLY**

(Submit only if the proposed construction project includes land application of wastewater.)

**8.0 FACILITY INFORMATION**

8.1 Type of wastewater to be irrigated:  Domestic  State/National Park  Seasonal business  
 Municipal  Municipal with a pretreatment program or significant industrial users  
 Other (explain) \_\_\_\_\_

8.2 Months when the business or enterprise will operate or generate wastewater:  
 12 months per year  Part of the year (list months): \_\_\_\_\_

8.3 This system is designed for:  
 No-discharge.  
 Partial irrigation when feasible and discharge rest of time.  
 Irrigation during recreational season, April – October, and discharge during November – March.  
 Other (explain) \_\_\_\_\_

**9.0 STORAGE BASINS**

9.1 Number of storage basins: \_\_\_\_\_ (Use additional pages if greater than three basins.)

9.2 Type of basins:  Steel  Concrete  Fiberglass  Earthen  Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.

Basin #1:	Length <u>150</u>	Width <u>100</u>	Depth <u>10</u>	Freeboard <u>3</u>	Berm Width <u>10</u>	% Slope <u>33</u>
Basin #2:	Length _____	Width _____	Depth _____	Freeboard _____	Berm Width _____	% Slope _____
Basin #3:	Length _____	Width _____	Depth _____	Freeboard _____	Berm Width _____	% Slope _____

9.4 Storage Basin operating levels (report as feet below emergency overflow level).

Basin #1:	Maximum operating water level <u>100</u> ft	Minimum operating water level <u>98</u> ft
Basin #2:	Maximum operating water level _____ ft	Minimum operating water level _____ ft
Basin #3:	Maximum operating water level _____ ft	Minimum operating water level _____ ft

9.5 Design depth of sludge in storage basins.

Basin #1: 2 ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.6 Existing sludge depth, if the basins are currently in operation.

Basin #1: 0 ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.7 Total design sludge storage: \_\_\_\_\_ dry tons and 0 cubic feet

**10.0 LAND APPLICATION SYSTEM**

10.1 Number of irrigation sites 5 Total Acres 2.5 Maximum % field slopes 15  
Location: NE ¼, SW ¼, SE ¼, 35 Sec. 43N T 1W R Frank County 2.5 Acres  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation:  Grass hay  Pasture  Timber  Row crops  
 Other (describe) \_\_\_\_\_

10.3 Wastewater flow (dry weather) gallons per day: Average annual \_\_\_\_\_ Seasonal \_\_\_\_\_ Off-season \_\_\_\_\_

10.4 Land application rate (design flow including 1-in-10 year storm water flows):

Design:	_____ inches/year	_____ inches/hour	_____ inches/day	_____ inches/week
Actual:	_____ inches/year	_____ inches/hour	_____ inches/day	_____ inches/week

10.5 Total irrigation per year (gallons): Design: 1.6 M gal Actual: \_\_\_\_\_ gal

10.6 Actual months used for irrigation (check all that apply):

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

10.7 Land application rate is based on:

Hydraulic Loading  Other (describe) \_\_\_\_\_  
 Nutrient Management Plan (N&P) If N&P is selected, is the plan included?  YES  NO

RECEIVED

APR 29 2013



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)

**FORM I - PERMIT APPLICATION FOR CONSTRUCTION AND  
OPERATION OF WASTEWATER IRRIGATION SYSTEMS**

**FOR AGENCY USE ONLY**

PERMIT NUMBER

MO -

DATE RECEIVED

**INSTRUCTIONS:** The following forms must be submitted with Form I: **FORM B** for domestic wastewater. **Submit FORMS E and G** for land disturbance permit if construction areas total one acre or more.

**1.00 FACILITY INFORMATION**

1.10 Facility Name

Septic Services, Inc

1.20 Application for:  Construction Permit (attach Engineering report, Plans and Specifications per 10 CSR 20-8)

Operating Permit (if no construction permit, attach engineering documents)

Date Irrigation System Began Operation: \_\_\_\_\_

Operating Permit Renewal

1.30 Type of wastewater to be irrigated:  Domestic  Municipal  State/National Park  Seasonal business

Municipal with Pretreatment Program or Significant Industrial Users  Other (explain) \_\_\_\_\_

SIC Codes (list all that apply, in order of importance) 4952

1.40 Months when the business or enterprise will operate or generate wastewater:

12 months per year  Part of year (list Months): \_\_\_\_\_

1.50 This system is designed for:

No-discharge  Partial irrigation when feasible and discharge rest of time.

Irrigation during recreation season (April - October) and discharge during November - March.

Other (explain) \_\_\_\_\_

1.60 List the Facility outfalls which will be applicable to the irrigation system from outfalls listed on Form B.

Outfall Nos. 1 \_ \_ \_ \_ \_

**2.00 STORAGE BASINS**

2.10 Number of storage basins: 1 Type of basin:  Steel  Concrete  Fiberglass  Earthen

Earthen with membrane liner

2.20 Storage basin dimensions at inside top of berm (feet): Report freeboard as feet from top of berm to emergency spillway or overflow pipe.

(Complete Attachment A: Profile Sketch)

Basin #1: Length 150 Width 100 Depth 10 Freeboard 3 Berm Width 10 % Slope 33

Basin #2: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Berm Width \_\_\_\_\_ % Slope \_\_\_\_\_

2.30 Storage Basin operating levels (report as feet below emergency overflow level)

Basin #1: Maximum water level 98 ft. Minimum operating water level 100 ft.

Basin #2: Maximum water level \_\_\_\_\_ ft. Minimum operating water level \_\_\_\_\_ ft.

2.40 Depth of sludge in lagoons and storage basins 2 ft.

Total sludge stored \_\_\_\_\_ dry tons \_\_\_\_\_ cu. ft.

**3.00 LAND APPLICATION SYSTEM**

3.10 Number of irrigation sites 5 Total Acres 2.5 Maximum % field slopes 15

Location: NE 1/4, SW 1/4, SE 1/4, 35 Sec. 43 N T 1 W R Fran County 2.5 Acres

Location: \_\_\_\_\_ 1/4, \_\_\_\_\_ 1/4, \_\_\_\_\_ 1/4, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres

3.11 Type of vegetation:  Grass hay  Pasture  Timber  Row crops  Other (describe) \_\_\_\_\_

3.20 Wastewater flow (dry weather) gallons/day:  
Average annual: \_\_\_\_\_ Seasonal \_\_\_\_\_ Off-season \_\_\_\_\_  
Months of seasonal flow: 12  
Human Population Equivalent: 60

3.21 Land Application rate per acre (design flow including 1 in 10 year storm water flows):  
Design: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week  
Actual: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week  
Total Irrigation per year (gallons): \_\_\_\_\_ Design \_\_\_\_\_ Actual  
Actual months used for Irrigation (check):  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  
 Oct  Nov  Dec

3.22 Land Application Rate is based on:  
 Nutrient Management Plan (N&P)  
 Hydraulic Loading  
 Other (describe) \_\_\_\_\_

3.30 Equipment type:  Sprinklers  Gated pipe  Center pivot  Traveling gun  Other (describe) \_\_\_\_\_  
Equipment Flow Capacity: \_\_\_\_\_ Gallons per hour \_\_\_\_\_ Total hours of operation per year sub surface system

3.40 Public Access Restrictions for irrigation sites:  Site is Fenced  Wastewater disinfection prior to irrigation  
 Other (describe): private property subsurface system

3.50 Separation distance (in feet) from the outside edge of the wetted irrigation area to down gradient features:  
600 Permanent flowing stream na Losing Stream 50 Intermittent (wet weather) stream na Lake or pond  
25 Property boundary 100 Dwellings 500 Water supply well \_\_\_\_\_ Other (describe) \_\_\_\_\_

3.60 SOILS INFORMATION: Use information from the County Soil Survey, NRCS, or professional soil scientist.  
Soil Series Name Gasc Depth of bedrock 10 Feet Depth of water table >6 Feet  
Soil Infiltration rate in inches/hour (in/hr) for most restrictive layer within the following soil depth ranges:  
0.6 In/hr for 0-12 in soil depth 0.2 In/hr for 12-24 inch soil depth 0.2 In/hr for 24-60 inch soil depth

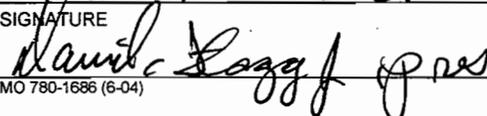
3.70 Include a recent Geologic Report by the Department's Geological Survey and Resource Assessment Division with your construction permit.

3.80 Attach a current copy of the Operation and Maintenance (O&M) Plan for the irrigation system. Date of O&M Plan: \_\_\_\_\_

3.81 Attach a site map showing topography, storage basins, irrigation sites, property boundary, streams, wells, roads, dwellings and other pertinent features.

3.82 Attach a facility sketch showing treatment units, storage basins, pipelines, irrigation equipment, application sites and other features.

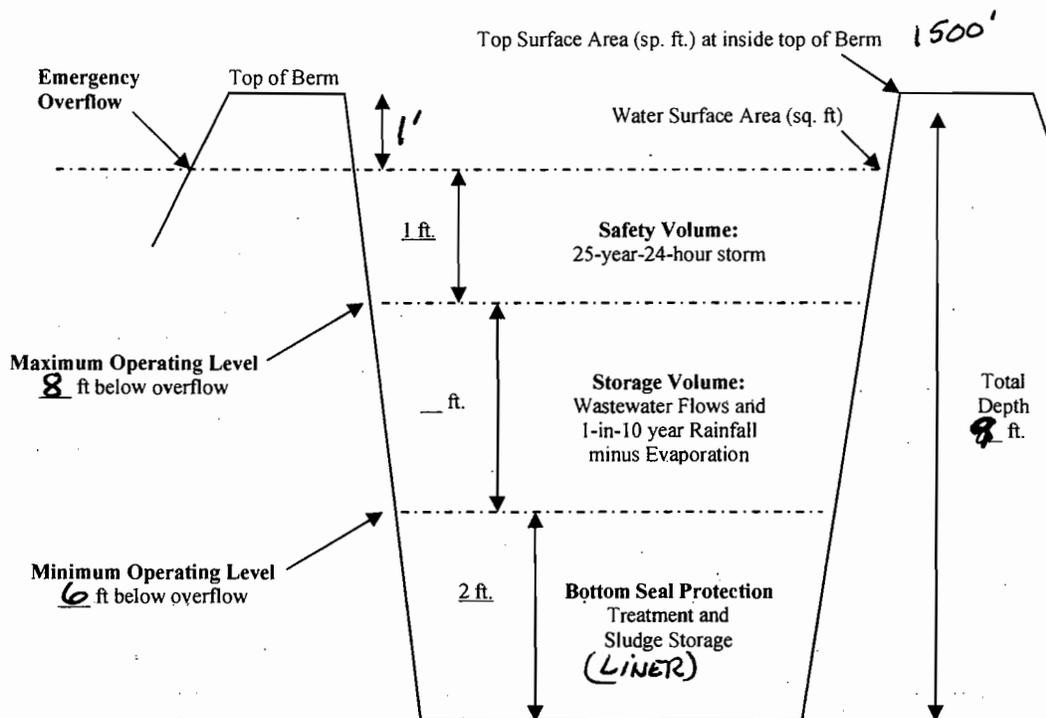
**4.00 CERTIFICATION**  
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment.

CONSULTING ENGINEER – Name, Official Title and Engineering Firm (TYPE OR PRINT) <u>Krist Scheer Scheer Design Group LLC</u>	TELEPHONE NUMBER (area code and number) <u>573 459 2641</u>
SIGNATURE 	DATE SIGNED <u>4/16/2013</u>
OWNER OR AUTHORIZED REPRESENTATIVE – Name and Official Title (TYPE OR PRINT) <u>DAVID C FIAGG JR</u>	TELEPHONE NUMBER (area code and number) <u>636-583-5564</u>
SIGNATURE 	DATE SIGNED <u>4/15/13</u>

# ATTACHMENT A

(To be included with Form I)

## Lagoon or Storage Basin PROFILE SKETCH



### DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).

- Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
- Maximum Operating Level is at bottom of the safety volume (minimum of 2 feet below top of berm).
- Minimum Operating Level is 2 feet above bottom of lagoon for seal protection per 10 CSR 20-8.  
The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- Total Depth is from top of berm to bottom of basin including freeboard.



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
**NO DEGRADATION EVALUATION**  
**CONCLUSION OF ANTIDegradation REVIEW**  
 (Submit this form with the appropriate Permit Application)

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APR 29 2013

WATER PROTECTION PROGRAM

**1. FACILITY**

NAME Septic Services, Inc		COUNTY Franklin	
ADDRESS (PHYSICAL) 7059 Hwy 47	CITY Union	STATE MO	ZIP CODE 63084
FACILITY CONTACT: Dave Flagg		TELEPHONE NUMBER WITH AREA CODE (636) 583 - 5564	

**2. NO DEGRADATION OPTIONS**

Renewal without changes

Sewer extensions

CSO elimination projects

No-discharge with land application

No-discharge with subsurface irrigation

Recycle or reuse of effluent

Discharge to a regional wastewater collection and treatment system.

Addition or replacement of disinfection system for an existing wastewater facility: Ultraviolet or Ozone  
 The facility will be required to meet regulatory effluent limits for bacteria.

Addition or replacement for chlorination or dechlorination disinfection system of existing facility.  
 The chlorination or dechlorination disinfection treatment system design must be for total removal of Total Residual Chlorine. Therefore, the facility will be required to meet the water quality-bases effluent limits determined by the permit writer or the following water quality-bases effluent limits:

Beneficial Use of Classified Water	MDL (µg/l)	AML (µg/l)
Warm-water fishery	17	8.2
Cold-water fishery	3.3	1.6

Note: These compliance limits for Total Residual Chlorine are much less than minimum quantification level, or ML, of 0.13. The facility will be required to meet regulatory effluent limits for bacteria.

Other, please describe: \_\_\_\_\_

Consulted with Water Protection Staff:

NAME NONE	DATE
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**3. NO DEGRADATION PROPOSED PROJECT SUMMARY**

Modification of existing open discharging system to a non-discharging sub surface absorption system.

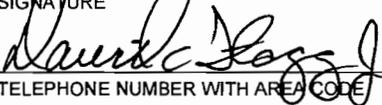
**CONSULTANT:** I have prepared or reviewed this form and all attached reports and documentation. The conclusion proposed is consistent with the Antidegradation Implementation Procedure and current state and federal regulations.

SIGNATURE 	DATE 4/11/2013
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PRINT NAME  
Kirby Scheer, P.E.

TELEPHONE NUMBER WITH AREA CODE 573 459-2611	E-MAIL ADDRESS kirbs@fidnet.com
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**Owner:** I have read and reviewed the prepared documents and agree with this submittal.

SIGNATURE  , p.e.o.	DATE 4/15/13
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TELEPHONE NUMBER WITH AREA CODE 636-583-5564	E-MAIL ADDRESS
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**Continuing Authority:** Continuing Authority is the permanent organization that will be responsible for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at [www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf](http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf).

I have read and reviewed the prepared documents and agree with this submittal.

SIGNATURE	DATE
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TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
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**Return completed form with the appropriate Permit Application to:**  
Missouri Department of Natural Resources  
Water Protection Program  
Water Pollution Control Branch  
P.O. Box 176  
Jefferson City, MO 65102