



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

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

July 14, 2016

Mr. Chris Crocker
Director of Planning and Development
Missouri Department of Natural Resources
Division of State Parks
1659 East Elm Street, P.O. Box 176
Jefferson City, MO 65102-0176

RE: C295364-03 Montauk State Park – Sewage Treatment Lagoon Modification,
MO-0034819, Construction Permit No. CP0001808

Dear Mr. Crocker:

The Department of Natural Resources' Water Protection Program has reviewed and approved the plans, specifications, and addenda Nos. 1 and 2 submitted by Olsson Associates for the Montauk State Park. Please find enclosed Construction Permit No. CP0001808, one set of approved specifications, and addenda. One set of approved plans has been sent under separate cover by Mr. Conrad Blume, P.E., of my staff. You must maintain these with your official project file for a minimum of four years following completion of the project.

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.

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.

Mr. Chris Crocker, Director of Planning and Development
July 14, 2016
Page 2

If you have any questions concerning this matter, please contact Mr. Conrad Blume, P.E., of the Water Protection Program, at (573) 751-5937 or Department of Natural Resources, Water Protection Program, 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



Shawn Muenks P.E., SRF Engineering Unit Chief
Financial Assistance Center

SM:cbc

Enclosures

c: Mr. Jerry Jesky, Jr., P.E., Olsson Associates
Southeast Regional Office
Mr. Conrad Blume, P.E., Water Protection Program, Financial Assistance Center
Ms. Laura Richardson, Water Protection Program, Financial Assistance Center

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Missouri Department of Natural Resources
Division of State Parks
1659 East Elm Street, P.O. Box 176
Jefferson City, MO 65102-0176

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.

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.

July 14, 2016
Effective Date

July 13, 2017
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

Director, Water Protection Program

CONSTRUCTION PERMIT

The project will consist of closing the second and third cell of the existing treatment facility, construction of a new secondary cell with an operating volume of 2,509,000 gallons, reinforcement of the berm for both existing primary cell and the new secondary cell with heavy rip-rap, construction of a new irrigation lift station, and all necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated population equivalent of 370 and an estimated design average flow of 37,000 gallons per day. The project will also include general site work appropriate to the scope and purpose of the project.

PERMIT CONDITIONS:

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

1. All construction shall be in accordance with the plans and specifications submitted by Olsson and Associates on July 8, 2016 and signed and sealed by Mr. Jerry Jesky, Jr., P.E. on February 29, 2016 and approved by the department on July 14, 2016.
2. Regulation 10 CSR 20-4.040(19)(B)1 requires that projects be publicly advertised, allowing sufficient time for bids to be prepared and submitted. Projects should be advertised at least 30 days prior to bid opening.
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. As per 10 CSR 20-4.040, all changes in contract price or time within the approved scope of work must be by change order in accordance with Section 20 of this rule.
5. This construction permit does not authorize discharge.
6. 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 Southeast Regional Office per 10 CSR 20-7.015(9)(E)2.

7. 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:
 - 1) 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
 - 2) 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.

8. 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 may only be obtained by means of the department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm.

See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

9. 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/ for more information.

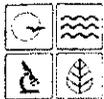
10. A full closure plan shall be submitted to the department's Southeast Regional Office for review and approval of any permitted wastewater treatment system being replaced. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III, Section I, of the Missouri State Operating Permit No. MO-0034819, Montauk State Park. Closure shall not commence until the submitted closure plan is approved by the department.

11. Upon completion of construction:

- A. The Department of Natural Resources, Division of State Parks will become the continuing authority for operation, maintenance, and modernization of these facilities;
- B. Submit the enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(D); and
- C. Submit an electronic copy of the as built.

NOV 16 2015

Water Protection Program



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
**APPLICATION FOR CONSTRUCTION PERMIT –
WASTEWATER FACILITY**

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED	CHECK NO.
DATE RECEIVED	<u>11-16-15</u> <i>EB</i>

APPLICATION OVERVIEW

The Application for Construction Permit – Wastewater Facility form is for construction pertaining to domestic wastewater treatment facilities, agrichemical facilities, and components thereof. This 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: DNR Project #: X1424-03
 - 1.2 Is this an application for an agrichemical? YES (See instructions.) N/A
 - 1.3 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
 YES Date of Approval: N/A
 - 1.4 Has the department approved the proposed project's facility plan*?
 YES Date of Approval: 7/15 NO N/A (If Not Applicable, complete No. 1.4.)
 - 1.5 [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
 - 1.6 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
 - 1.7 Is a summary of design* included with this application? YES NO
 - 1.8 Is a general operating permit applicable?
 YES Submit the appropriate operating permit application to the Regional Office at least 60 days prior to operation.
 NO Enclose the appropriate operating permit application and fee submittal. Denote which form: B B2
 - 1.9 Is the facility currently under enforcement with the department or the Environmental Protection Agency? YES NO
 - 1.10 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
Sewage Treatment Lagoon Modification Montauk State Park

2.2 PROJECT DESCRIPTION
The project will consist of closing the second and third cells of the existing 3-cell treatment facility, construction of a new secondary cell with an operating volume of 2,509,000 gallons, and construction of a new influent pump station (140 gpm) and a new irrigation lift station (900 gpm), which maintains similar pumped flows as the existing facility. The modifications will increase the design flow of the facility to 37,000 gallons per day. The existing irrigation field will continue to be used as-is for land application of lagoon effluent.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Sludge removed as part of closing existing cells 2 and 3 will be properly disposed of by the contractor as part of the facility modifications project. Some sludge from existing cell 1 will also be removed and properly disposed of as part of the project. Future sludge will be stored in the primary and secondary lagoon cells.

2.4 DESIGN INFORMATION
A. Current population: 260; Design population: 370
B. Actual Flow: 25,500 gpd; Design Average Flow: 37,000 gpd;
Actual Peak Daily Flow: 40,000 gpd; Design Maximum Daily Flow: 100,000 gpd; Design Wet Weather Event: 1-in-10 year

2.5 ADDITIONAL INFORMATION
A. Is a topographic map attached? YES NO
B. Is a process flow diagram attached? YES NO

2.6 ESTIMATED PROJECT CONSTRUCTION COST
\$2,600,000

3.0 WASTEWATER TREATMENT FACILITY

NAME MDNR, Montauk State Park		TELEPHONE NUMBER WITH AREA CODE (573) 548-2201	EMAIL ADDRESS	
ADDRESS (PHYSICAL) 345 County Road 6670	CITY Salem	STATE MO	ZIP CODE 65560	COUNTY Dent

Wastewater Treatment Facility: Mo- 0034819 (Outfall 1 Of 1)

3.1 Legal Description: ¼, SW ¼, NE ¼, Sec. 26 , T 32N , R 7W
(Use additional pages if construction of more than one outfall is proposed.)3.2 UTM Coordinates Easting (X): 617545 Northing (Y): 4145377
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: Current River

4.0 PROJECT OWNER

NAME MDNR, Division of State Parks		TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
ADDRESS P.O. Box 176	CITY Jefferson City	STATE MO	ZIP CODE 65102	

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 Douglas Rusk		TELEPHONE NUMBER WITH AREA CODE 573-548-2201	EMAIL ADDRESS doug.rusk@dnr.mo.gov	
ADDRESS 345 County Road 6670	CITY Salem	STATE MO	ZIP CODE 65560	

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 NOB. 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 NOC. 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 NOD. 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 Jerry Jesky / Olsson Associates		TELEPHONE NUMBER WITH AREA CODE (417) 890-8802	EMAIL ADDRESS jjesky@olssonassociates.com	
ADDRESS 550 St. Louis Street	CITY Springfield	STATE MO	ZIP CODE 65806	

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
Douglas RuskPRINTED NAME
Douglas RuskDATE
11/05/2015TITLE OR CORPORATE POSITION
Natural Resource ManagerTELEPHONE NUMBER WITH AREA CODE
573-548-2201EMAIL ADDRESS
doug.rusk@chrmo.gov

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 Subsurface
 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: 2 (Use additional pages if greater than two 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 315 Width 250 Depth 7 Freeboard 1 Depth _____ Safety 1 % Slope 33
Basin #2: Length 310 Width 230 Depth 10 Freeboard 1 Depth _____ Safety 1 % Slope 33

9.4 Storage Basin operating levels (report as feet below emergency overflow level).
Basin #1: Maximum operating water level 1 ft Minimum operating water level 6 ft
Basin #2: Maximum operating water level 1 ft Minimum operating water level 7 ft

9.5 Design depth of sludge in storage basins.
Basin #1: 2 ft Basin #2: 2 ft

9.6 Existing sludge depth, if the basins are currently in operation.
Basin #1: 1 ft Basin #2: proposed ft

9.7 Total design sludge storage: 150 dry tons and 240,000 cubic feet

10.0 LAND APPLICATION SYSTEM

10.1 Type of land application: Fixed Head Sprinklers Center Pivot Traveling Gun Drip Dispersal
 Subsurface Low Pressure Pipe Other (describe) _____

10.2 Number of irrigation sites 4 Total Acres 26.17 Maximum % field slopes Existing irrigation field on file with DNR.
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ 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.)

10.3 Type of vegetation: Grass hay Pasture Timber Row crops
 Other (describe) _____

10.4 Wastewater flow (dry weather) gallons per day: Average annual 25,500 Seasonal 32,000 Off-season 11,000

10.5 Land application rate (design flow including 1-in-10 year storm water flows):
Design: 17.12 inches/year 0.079 inches/hour 0.262 inches/day .786 inches/week
Actual: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week

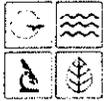
10.6 Total irrigation per year (gallons): Design: 12.5 M gal Actual: 8 M gal

10.7 Actual months used for irrigation (check all that apply):
 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

10.8 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
NOV 16 2015

Water Protection Program



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
**FORM B: APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT
RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW LESS
THAN OR EQUAL TO 100,000 GALLONS PER DAY**

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED
11/16/15	83

READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM

1. THIS APPLICATION IS FOR:

An operating permit for a new or unpermitted facility. Construction Permit # _____
(Include completed antidegradation review or request for antidegradation review, see instructions)

A new site-specific operating permit formerly general permit #MOG _____

A site-specific operating permit renewal: Permit #MO- _____ Expiration Date _____

A site-specific operating permit modification: Permit #MO- 0034819 Reason: Facility modifications

General permit (MOGD – Non POTWs discharging < 50,000 GPD or MOG823 – Land Application of Domestic Wastewater):
Permit #MO- _____ Expiration Date _____

1.1 Is the appropriate fee included with the application (see instructions for appropriate fee)? YES NO

2. FACILITY

NAME MDNR, Montauk State Park		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (PHYSICAL) 345 County Road 6670	CITY Salem	STATE MO	ZIP CODE 65560
2.1 Legal description: ¼, SW ¼, NE ¼, Sec. 26, T 32, R 7W	County Dent		
2.2 UTM Coordinates Easting (X): 617545 Northing (Y): 4145377 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)			
2.3 Name of receiving stream: Current River			
2.4 Number of outfalls: 1 Wastewater outfalls: Stormwater outfalls: instream monitoring sites:			

3. OWNER

NAME MDNR, Division of State Parks		EMAIL ADDRESS		TELEPHONE NUMBER WITH AREA CODE	
ADDRESS P.O. Box 176		CITY Jefferson City		STATE MO ZIP CODE 65102	
3.1 Request review of draft permit prior to public notice?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
3.2 Are you a publicly owned treatment works? If yes, is the Financial Questionnaire attached?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO			
3.3 Are you a privately owned treatment works?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
3.4 Are you a privately owned treatment facility regulated by the Public Service Commission?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

4. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility.

NAME <u>Douglas Rusk</u>		EMAIL ADDRESS <u>doug.rusk@dnr.mo.gov</u>		TELEPHONE NUMBER WITH AREA CODE <u>573-548-2201</u>	
ADDRESS <u>345 County Road 6670</u>		CITY <u>Salem</u>		STATE <u>MO</u> ZIP CODE <u>65560</u>	

If the continuing authority is different than the owner, include a copy of the contract agreement between the two parties and a description of the responsibilities of both parties within the agreement.

5. OPERATOR

NAME <u>Jack Ficker</u>		TITLE <u>PMW III</u>		CERTIFICATE NUMBER <u>5371D</u>	
EMAIL ADDRESS <u>mon.tauk.state.park@dnr.mo.gov</u>		TELEPHONE NUMBER WITH AREA CODE <u>573-548-2201</u>			

6. FACILITY CONTACT

NAME <u>Douglas Rusk</u>		TITLE <u>Natural Resource Manager</u>			
EMAIL ADDRESS <u>doug.rusk@dnr.mo.gov</u>		TELEPHONE NUMBER WITH AREA CODE <u>573-548-2201</u>			
ADDRESS <u>345 County Road 6670</u>		CITY <u>Salem</u>		STATE <u>MO</u> ZIP CODE <u>65560</u>	

7. DESCRIPTION OF FACILITY

7.1 Process Flow Diagram or Schematic: Provide a diagram showing the processes of the treatment plant. Show all of the treatment units, including disinfection (e.g. – chlorination and dechlorination), influents, and outfalls. Specify where samples are taken. Indicate any treatment process changes in the routing of wastewater during dry weather and peak wet weather. Include a brief narrative description of the diagram.

Attach sheets as necessary.

See attached schematic. After modifications to the existing Montauk State Park treatment facility, incoming wastewater will gravity flow to the treatment facility from the existing Montauk State Park collection system and enter a new influent pump station, designed for 140 gpm. Wastewater will then be pumped to the existing primary lagoon cell for initial treatment, before gravity flowing to a new secondary cell that will replace the existing 2nd and 3rd lagoon cells (which will be decommissioned). From the new secondary lagoon cell, wastewater will flow into a manually-controlled irrigation pump station, sized for 900 gpm, to be land applied onto the existing 26-acre irrigation area. Sludge will be stored in the lagoon cells. For emergency protection, there is an emergency overflow outfall (001) to allow the lagoon to discharge before water reaches the top of the berm during extreme wet weather periods.

7.2 Attach an aerial photograph or USGS topographic map showing the location of the facility and outfall.

8. ADDITIONAL FACILITY INFORMATION

8.1 Facility SIC code: 7999 Discharge SIC code: 4952

8.2 Number of people presently connected or population equivalent (P.E.) 255 Design P.E. 370

8.3 Connections to the facility:
Number of units presently connected:
Homes _____ Trailers _____ Apartments _____ Other (including industrial) _____
Number of commercial establishments: Seasonal conns.

8.4 Design flow: 37,000 GPD Actual flow: 25,500 GPD

8.5 Will discharge be continuous through the year? Yes No
Discharge will occur during the following months: No planned discharge.

How many days of the week will discharge occur? This is a no-discharge system.

8.6 Is industrial wastewater discharged to the facility? Yes No
If yes, attach a list of the industries that discharge to your facility

8.7 Does the facility accept or process leachate from landfills? Yes No

8.8 Is wastewater land applied? Yes No
If yes, is Form I attached? Yes No

8.9 Does the facility discharge to a losing stream or sinkhole? Yes No

8.10 Has a wasteload allocation study been completed for this facility? Yes No

9. LABORATORY CONTROL INFORMATION

LABORATORY WORK CONDUCTED BY PLANT PERSONNEL

Lab work conducted outside of plant. Yes No
Push-button or visual methods for simple test such as pH, settleable solids. Yes No
Additional procedures such as dissolved oxygen, chemical oxygen demand, biological oxygen demand, titrations, solids, volatile content. Yes No
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc. Yes No
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph. Yes No

10. COLLECTION SYSTEM

10.1 Length of pipe in the sewer collection system? _____ Feet, or <2 Miles (either unit is appropriate)

10.2 Does significant infiltration occur in the collection system? Yes No
If yes, briefly explain any steps underway or planned to minimize inflow and infiltration:

11. BYPASSING

Does any bypassing occur in the collection system or at the treatment facility? Yes No

If yes, explain:

12. SLUDGE HANDLING, USE AND DISPOSAL

12.1 Is the sludge a hazardous waste as defined by 10 CSR 25? Yes No

12.2 Sludge production, including sludge received from others: 5 Design dry tons/year <5 Actual dry tons/year

12.3 Capacity of sludge holding structures:
 Sludge storage provided: _____ cubic feet; _____ days of storage; _____ average percent solids of sludge;
 No sludge storage is provided. Sludge is stored in lagoon.

12.4 Type of Storage: Holding tank Building
 Basin Lagoon
 Concrete Pad Other (Describe) _____

12.5 Sludge Treatment:
 Anaerobic Digester Lagoon Composting
 Storage Tank Aerobic Digester Other (Attach description)
 Lime Stabilization Air or Heat Drying

12.6 Sludge Use or Disposal:
 Land Application Surface Disposal (Sludge Disposal Lagoon, Sludge held for more than two years)
 Contract Hauler Hauled to Another treatment facility
 Incineration Sludge Retained in Wastewater treatment lagoon
 Solid waste landfill

12.7 Person responsible for hauling sludge to disposal facility:
 By applicant By others (complete below)

NAME		EMAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE NUMBER WITH AREA CODE	PERMIT NO. MO-	

12.8 Sludge use or disposal facility
 By applicant By others (Complete below.)

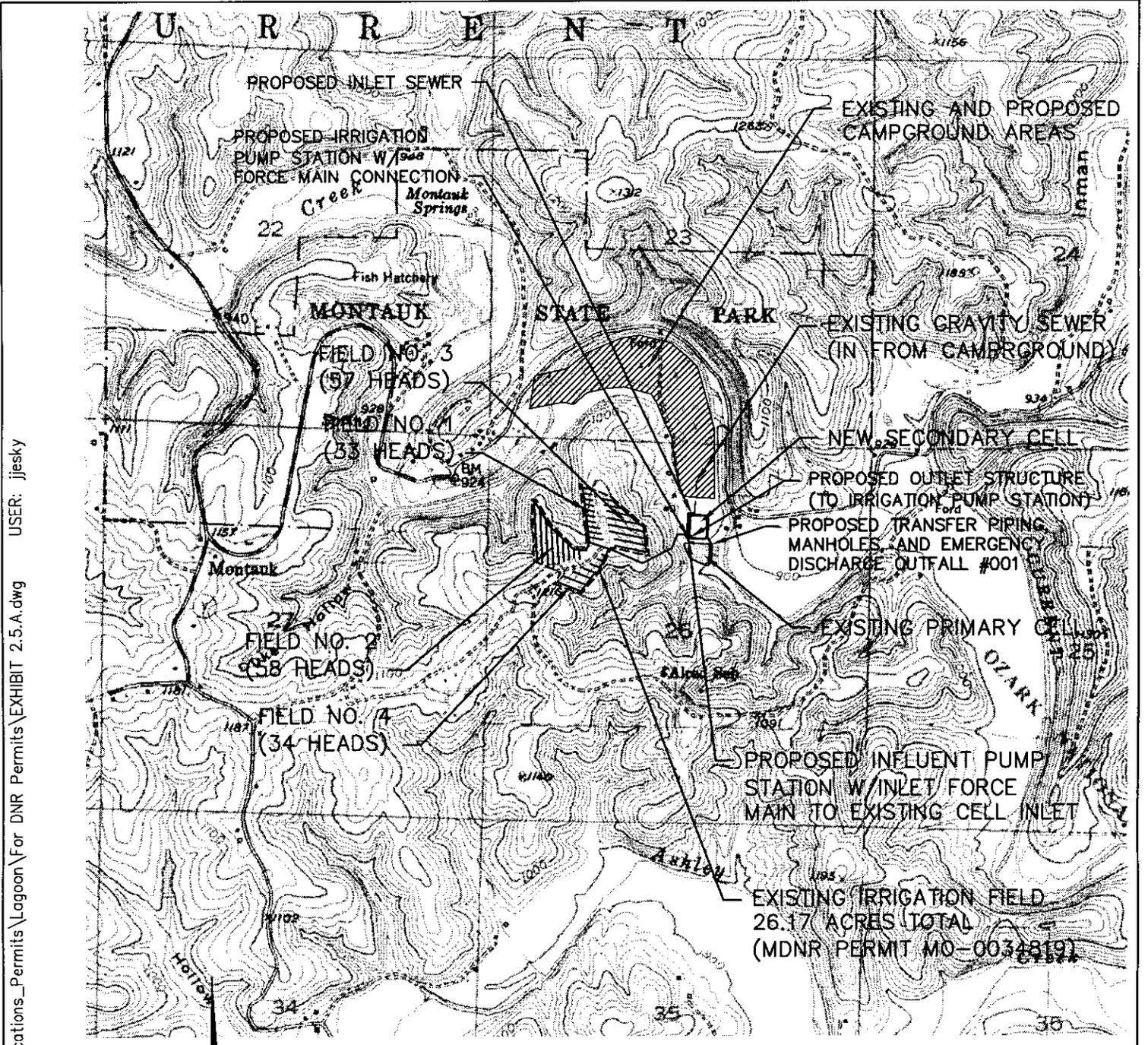
NAME		EMAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE NUMBER WITH AREA CODE	PERMIT NO. MO-	

12.9 Does the sludge or biosolids disposal comply with federal sludge regulations under 40 CFR 503?
 Yes No (Explain)

13. CERTIFICATION

I certify that I am familiar with the information contained in the application, that 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 the Missouri Clean Water Law.

NAME (TYPE OR PRINT) <i>Douglas Rusk</i>	OFFICIAL TITLE <i>Natural Resource Manager</i>	TELEPHONE NUMBER WITH AREA CODE <i>573-548-2201</i>
SIGNATURE <i>Douglas Rusk</i>	DATE SIGNED <i>11/5/15</i>	



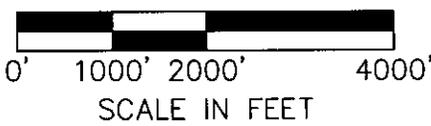
GENERAL NOTES:

1. FACILITY IS A NO DISCHARGE FACILITY;
2. NO WELLS OR SPRINGS OF RECORD EXIST WITHIN 1/4 MILE OF THE TREATMENT FACILITY;
3. NO BIOSOLIDS ARE TREATED, STORED OR DISPOSED OF ON THE FACILITY SITE;
4. NO CLASSIFIED WASTES ARE RECEIVED AT THIS FACILITY.

FACILITY LOCATION:
 NE 1/4, SECTION 26, T32N, R7W, DENT COUNTY

PROJECT AREA TOPOGRAPHIC MAP-USGS

DWG: F:\PROJECTS\014-2146\Documents\Applications\Lagoon\For DNR Permits\Exhibit 2.5.A.dwg
 DATE: Nov 11, 2015 1:16pm
 USER: jjesky
 XREFS:



PROJECT NO:	2014-2146
DRAWN BY:	HSM
DATE:	11/06/15

**MONTAUK
 STATE PARK**

MOLSSON
 ASSOCIATES

550 St. Louis Street
 Springfield, MO 65806
 TEL 417.890.8802
 FAX 401.890.8805

EXHIBIT
2.5.A

USER: jjesky
 DWG: F:\PROJECTS\014-2146\Documents\Applications_Permits\Lagoon\For DNR Permits\EXHIBIT 2.5.B.dwg
 DATE: Nov 11, 2015 1:15pm
 XREFS:

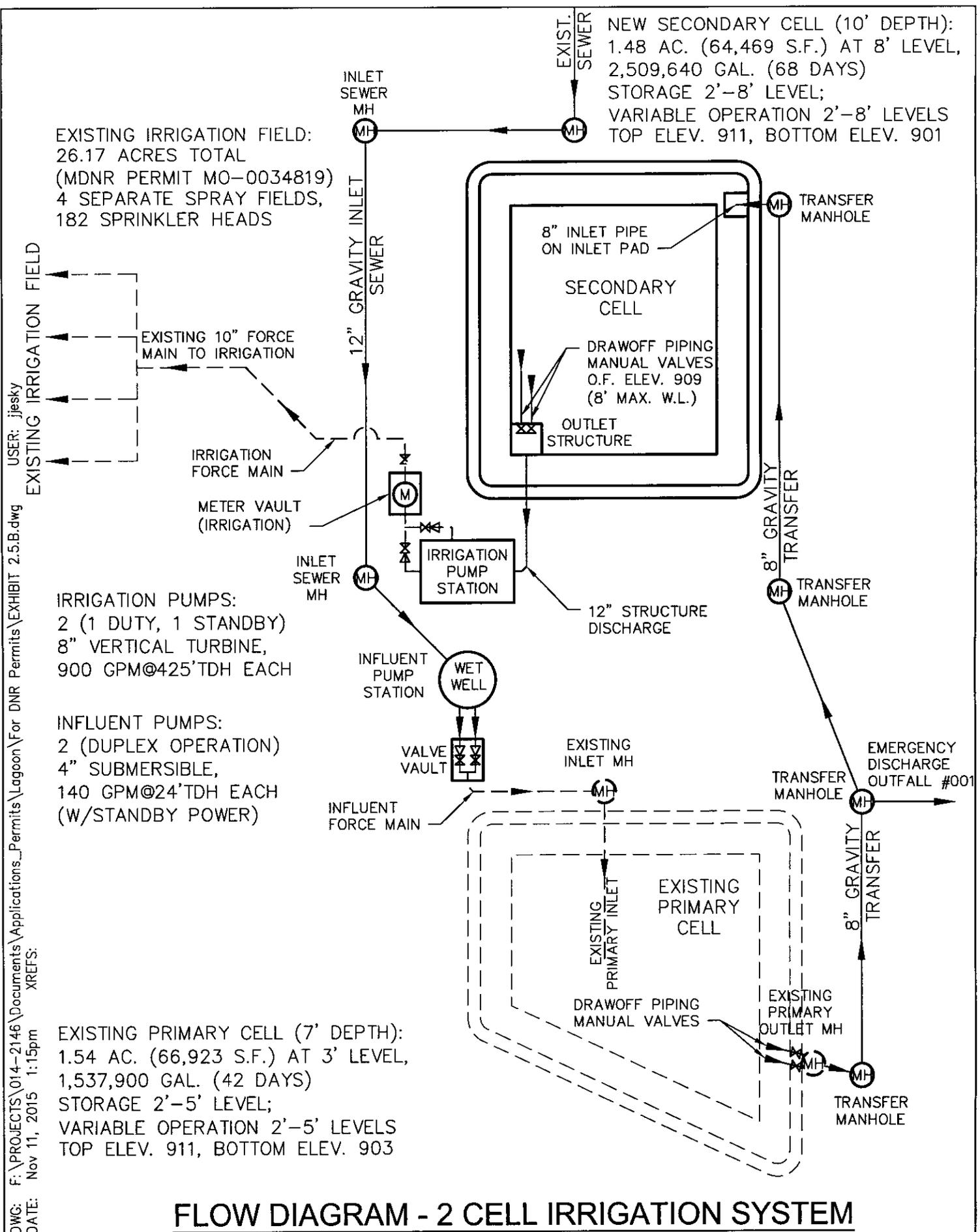
EXISTING IRRIGATION FIELD:
 26.17 ACRES TOTAL
 (MDNR PERMIT MO-0034819)
 4 SEPARATE SPRAY FIELDS,
 182 SPRINKLER HEADS

IRRIGATION PUMPS:
 2 (1 DUTY, 1 STANDBY)
 8" VERTICAL TURBINE,
 900 GPM@425'TDH EACH

INFLUENT PUMPS:
 2 (DUPLEX OPERATION)
 4" SUBMERSIBLE,
 140 GPM@24'TDH EACH
 (W/STANDBY POWER)

EXISTING PRIMARY CELL (7' DEPTH):
 1.54 AC. (66,923 S.F.) AT 3' LEVEL,
 1,537,900 GAL. (42 DAYS)
 STORAGE 2'-5' LEVEL;
 VARIABLE OPERATION 2'-5' LEVELS
 TOP ELEV. 911, BOTTOM ELEV. 903

NEW SECONDARY CELL (10' DEPTH):
 1.48 AC. (64,469 S.F.) AT 8' LEVEL,
 2,509,640 GAL. (68 DAYS)
 STORAGE 2'-8' LEVEL;
 VARIABLE OPERATION 2'-8' LEVELS
 TOP ELEV. 911, BOTTOM ELEV. 901



FLOW DIAGRAM - 2 CELL IRRIGATION SYSTEM

PROJECT NO: 2014-2146	MONTAUK STATE PARK	MOLSSON ASSOCIATES	550 St. Louis Street Springfield, MO 65806 TEL 417.890.8802 FAX 401.890.8805	EXHIBIT
DRAWN BY: HSM				2.5.B
DATE: 11/06/15				