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STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

August 30, 2010

CERTIFIED MAIL # 7009 2820 0002 6482 9669
RETURN RECEIPT REQUESTED

Dwight K. Robertson, P.E., Acting Director of Public Works
US Army IMCOM and Fort Leonard Wood
Directorate of Public Works
1334 1st St., Bldg. 2200A
Fort Leonard Wood, MO 65473

RE: Renewal – Missouri State Operating Permit # MO0117251; US Army Installation Command (IMCOM) and Fort Leonard Wood, Pulaski County

Dear Mr. Robertson:

Pursuant to the Federal Water Pollution Control Act, under authority granted to the State of Missouri, and in compliance with the Missouri Clean Water Law (MCWL) and associated Missouri Clean Water Commission (MCWC) regulations, the Department has renewed at your request and you will find enclosed, Missouri State Operating Permit (MSOP) # MO0117251 for stormwater discharges from the US Army Installation Management Command (IMCOM) and Fort Leonard Wood, Pulaski County.

Please read enclosed MSOP and Standard Conditions. Each contains important information on monitoring requirements, interim and/or final effluent limitations, measurement frequencies, sampling type and/or reporting requirements. Discharge monitoring reports required by the special conditions section of subject MSOP renewal must be submitted on a periodic basis. Enclosed you will find copies of necessary report forms and these should be submitted to the Department's Southeast Regional Office, 2155 N. Westwood Blvd., Poplar Bluff, MO 63901 as required. Please contact the Department's Southeast Regional Office for additional forms via telephone at (573) 840-9750.

Enclosed MSOP is both your federal discharge permit and your state operating permit, and replaces all previous state operating permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your MSOP number as shown on Page One (1) of your MSOP.

As result of changing Missouri Clean Water Commission (MCWC) regulations, subsequent policy implementation by the Department's Division of Environmental Quality's Water

Protection Program and modification requests submitted during the renewal process by permittee [US Army Installation Command (IMCOM) and Fort Leonard Wood], the following changes have been implemented in subject MSOP renewal:

1. **Elimination of the Oil and Grease–Visual Stormwater (Effluent) Parameter, and its Associated Measurement (Sampling), Monitoring and Reporting Requirements:**

   The Department has removed measurement (sampling), monitoring and reporting requirements for the Oil and Grease–Visual stormwater (effluent) parameter from subject MSOP renewal for all active stormwater outfalls, and for required upstream and downstream monitoring. Part A., Stormwater (Effluent) Limitations and Monitoring Requirements, of subject MSOP renewal includes final stormwater (effluent) limitations, and requires monitoring and analytical reporting for the Oil and Grease stormwater (effluent) parameter at all active stormwater outfalls. Part A., Effluent Limitations and Monitoring Requirements, of subject MSOP renewal includes effluent limitations, and requires monitoring and analytical reporting for the Oil and Grease effluent parameter for required upstream and downstream monitoring. Part C.6.(b), Special Conditions, Water Quality Standards, General Criteria, of subject MSOP renewal, includes language regarding general water quality criteria applicable to all waters of the state at all times.

2. **Revised Minimum Final Stormwater (Effluent) Limitation for the pH Stormwater (Effluent) Parameter:**

   On June 30, 2010, MCWC regulation [10 CSR 20-7.015], Water Quality, Effluent Regulations, revisions became effective. Said revision included changing the minimum value for the pH stormwater (effluent) parameter to six-point-five (6.5) pH standard units (SUs). Subject MSOP renewal reflects this change.

3. **Increased Measurement (Sampling) and Monitoring Frequency for the Total Recoverable Lead (Pb) Stormwater (Effluent) Parameter for Stormwater Outfalls # 001, # 013 and # 014:**

   Due to reported final stormwater (effluent) limitations exceedances at stormwater Outfalls # 001 and Outfall # 013 during the last permit cycle, the Department has increased the measurement (sampling) and monitoring frequency for the Total Recoverable Lead (Pb) stormwater (effluent) parameter for stormwater Outfalls # 001, # 013 and # 014 from annually to quarterly in subject MSOP renewal. Measurement (sampling) and monitoring frequencies for all other stormwater outfalls remain unchanged at once per year. This required increased measurement (sampling) and monitoring frequency for stormwater Outfalls # 001, # 013 and # 014 has been included in subject MSOP renewal to determine whether a "reasonable potential" to exceed water quality standards exists at stormwater Outfalls # 001, # 013 and # 014. This increased measurement (sampling) and monitoring frequency for stormwater Outfalls # 001, # 013 and # 014 will yield sufficient data points for the Department to perform a Reasonable Potential Analysis at the end of the MSOP cycle in 2015 for the Total Recoverable Lead

(Pb) stormwater (effluent) parameter for Outfalls # 001, # 013 and # 014. Annual reporting requirements for all active stormwater outfalls remain unchanged.

4. **Elimination of the Dissolved Lead (Pb) Stormwater (Effluent) Parameter, and its Associated Measurement (Sampling), Monitoring and Reporting Requirements:**

   The Department has removed measurement (sampling), monitoring and reporting requirements for the Dissolved Lead (Pb) stormwater (effluent) parameter for all active stormwater outfalls from subject MSOP renewal. Required submission of analytical results for the Total Recoverable Lead (Pb) stormwater (effluent) parameter incorporates dissolved lead (Pb) analysis.

5. **New Measurement (Sampling), Monitoring and Reporting Requirements for the Total Hardness Stormwater (Effluent) Parameter:**

   The Department has included a new measurement (sampling), monitoring and reporting requirement for the Total Hardness stormwater (effluent) parameter for all active stormwater outfalls since metals toxicity, such as Lead (Pb) toxicity, varies by hardness.

6. **Discharge Monitoring Reports (DMRs) Submission Due Date Change:**

   For consistency, the Department has changed the submission due date for Discharge Monitoring Reports (DMRs) required by subject MSOP renewal to January 28th of each prior calendar year.

7. **Elimination of Stormwater (Effluent) Measurement (Sampling), and its Associated Monitoring and Reporting Requirements for the Chemical Defense Training Facility (CDTF) due to No Exposure Certification:**

   Submission of NPDES Form 3510-11, No Exposure Certification for Exclusion from NPDES Storm Water Permitting, to the Department constitutes notice that the Chemical Defense Training Facility (CDTF) does not require permit authorization for stormwater discharges associated with chemical agent training activities in the State of Missouri due to the existence of a condition of no exposure. The Department has removed stormwater measurement (sampling), and associated monitoring and reporting requirements for the CDTF from subject MSOP renewal. Permittee (US Army IMCOM and Fort Leonard Wood) is obligated to submit a no exposure certification form once every five (5) calendar years or once per permit cycle to the Department.

8. **Delineated Stormwater Pollution Prevention Plan (SWPPP) Requirement:**

   Current MSOP does not specifically outline the requirement for the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Subject MSOP renewal outlines this requirement.

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to MCWC regulation [10 CSR 20-1.020], Organization, Clean Water Commission Appeals and Requests for Hearings, and the MCWL, Section 644.051.6, and 621.250, RSMo. To appeal, you must file a petition with the AHC within 30 calendar days after the date this decision was mailed or the date decision was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, said petition will be deemed filed on the date said petition is mailed. If sent by any method other than registered mail or certified mail, said petition will be deemed filed on the date said petition is received by the AHC. Contact information for the AHC is as follows: Administrative Hearing Commission, Truman State Office Bldg., Rm. 640, 301 W. High St., PO Box 1557, Jefferson City, MO 65102-1557; Phone: (573) 751-2422; Fax: (573) 751-5018; and Web site: www.oa.mo.gov/ahc. Please be aware that this facility may also be subject to any applicable city, municipality, county or other local ordinances or restrictions.

If you have any questions about this subject MSOP renewal, you may contact Mr. Bruce D. Volner at (573) 368-3625 in the Department's Southeast Regional Office's Rolla Satellite Office, PO Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250. Thank you for your cooperation to protect, preserve and enhance Missouri's natural, cultural and energy resources.

Sincerely,

SOUTHEAST REGIONAL OFFICE

Gary L. Gaines, P.E.
Regional Director

GLG:bvk

Enclosures

c: Mr. Scott L. Murrell, Chief, Environmental Division, US Army IMCOM and Fort Leonard Wood, ATZT-DPW-EE, Directorate of Public Works, Environmental, Energy and Natural Resources, 1334 1st St., Bldg. 2101, Fort Leonard Wood, MO 65473
Ms. Amy Crews, Environmental Engineer, US Army IMCOM and Fort Leonard Wood, ATZT-DPW-EE, Directorate of Public Works, Environmental, Energy and Natural Resources, 1334 1st St., Bldg. 2101, Fort Leonard Wood, MO 65473

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, Chapter 644, RSMo. as amended, hereinafter, the Law, and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended.

Permit No.	**MO0117251**
Owner:	U.S. Army Installation Management Command (IMCOM) and Fort Leonard Wood
Owner Address:	1334 1st St., Bldg. 2101, Fort Leonard Wood, MO 65473
Continuing Authority:	Same as above
Continuing Authority Address:	Same as above
Facility Name:	U.S. Army IMCOM and Fort Leonard Wood
Facility Address:	1334 1st St., Bldg. 2101, Fort Leonard Wood, MO 65473
Legal Description:	See Pages 2 – 4 (all of the area known as Fort Leonard Wood, Pulaski County)
UTM Coordinates:	See Pages 2 – 4
Receiving Water Body (Stream):	See Pages 2 – 4
First Classified Water Body (Stream):	See Pages 2 – 4
USGS Basin & Sub-watershed No.:	See Pages 2 – 4

is authorized to discharge from the facility described herein in accordance with the interim and/or final effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Active Stormwater Outfalls # 001, # 004, # 006, # 007, # 012, # 013, # 014, # 015, # 016, # 017, # 018, # 019 and # 020 – National Security (Military Installation – Army) – Standard Industrial Classification (SIC) Code # 9711 – **Certified Operator Not Required**

This operating permit authorizes only stormwater, discharges under the Law and the National Pollutant Discharge Elimination System This operating permit does not apply to other regulated areas. This operating permit may be appealed in accordance with the Law, Section 644.051.6, RSMo, and Section 621.250, RSMo. and Missouri Clean Water Commission regulations [10 CSR 20-6.020], Permits, Public Participation, Hearings and Notice to Governmental Agencies, and [10 CSR 20-1.020], Organization, Clean Water Commission Appeals and Requests for Hearings

August 30, 2010
Effective Date

August 30, 2010
Renewal Date

Mark N Templeton, Director, Department of Natural Resources

August 29, 2015
Expiration Date

Gary L Gaines, P.E., Director, Southeast Regional Office

FACILITY DESCRIPTION (continued)

STORMWATER OUTFALLS

Note: Where actual flow is not listed, actual flow dependent on rainfall

Outfall # 001 – Smith Branch
Components: Explosives Detonation Area (FLW–4, FLW–5 and FLW–6; SW ¼, Sec. 31, T35N, R11W, Pulaski County); Forney Army Airfield (FLW–12; NW ¼, Sec. 27, T35N, R11W, Pulaski County); Forney Army Airfield (FLW–13; SE ¼, Sec. 28, T35N, R11W, Pulaski County); and Normandy Training Area (FLW–15; Sec. 29 and Sec. 32, T35N, R11W, Pulaski County); Smoke training
Legal Description: SW ¼, SW ¼, Sec. 29, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0572802, Y = 4175719)
Receiving Water Body (Stream): Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design Flow = 181 million gallons per day (MGD)

Outfall # 002 – Eliminated prior to October 1, 1999

Outfall # 003 – Eliminated prior to October 1, 1999

Outfall # 004 – Unnamed tributary to Big Piney River
Components: Defense Reutilization and Marketing Office (DRMO) (FLW–1; NW ¼, Sec. 13, T35N, R11W, Pulaski County); and Bulk Fuel Storage (FLW–2; NW ¼, Sec. 13, T35N, R11W, Pulaski County)
Legal Description: NE ¼, SE ¼, Sec. 13, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0580979, Y = 4179387)
Receiving Water Body (Stream): Unnamed tributary to Big Piney River (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 0.026 million gallons per day (MGD)

Outfall # 005 – Eliminated prior to October 1, 1999

Outfall # 006 – Asphalt Training Facility – Oil/Water Separator (Discharge Pipe)
Components: Asphalt Training Facility (FLW–14; NE ¼, Sec. 36, T35N, R11W, Pulaski County); Smoke training
Legal Description: NE ¼, SW ¼, Sec. 5, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573502, Y = 4182791)
Receiving Water Body (Stream): Roubidoux Creek (C) (01513)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 14.5 million gallons per day (MGD)

Outfall # 007 – Rock Quarry Sediment Pond
Components: Rock Quarry (FLW–17; N ½, Sec. 31, T35N, R10W, Pulaski County)
Legal Description: SE ¼, NW ¼, Sec. 31, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0581578, Y = 4174875)
Receiving Water Body (Stream): Unnamed tributary to Big Piney River (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 6.5 million gallons per day (MGD)

Outfall # 008 – Sanitary Landfill **[outfall not monitored (sampled)]**
Components: Sanitary Landfill (FLW–8, FLW–9 and FLW–10; NW ¼, Sec. 5, T34N, R11W, Pulaski County
Legal Description: SW ¼, SE ¼, Sec. 32, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573864, Y = 4174244)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = unknown

FACILITY DESCRIPTION (continued)

STORMWATER OUTFALLS (continued)

Outfall # 009 – Eliminated prior to October 1, 1999

Outfall # 010 – Eliminated prior to October 1, 1999

Outfall # 011 – Eliminated prior to October 1, 1999

Outfall # 012 – Bailey–McCann Hollow (near McCann Cemetery)
Legal Description: SE ¼, SE ¼, Sec. 2, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0569357, Y = 4171184)
Receiving Water Body (Stream): Unnamed tributary to Hurd Hollow (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 107 million gallons per day (MGD)

Outfall # 013 – Training Range Area (called "AA" on FLW Maps)
Legal Description: SE ¼, NE ¼, Sec. 2, T34N, R11W, Pulaski County
UTM Coordinates: (X = 0578944, Y = 4172541)
Receiving Water Body (Stream): Unnamed tributary to McCourtney Hollow (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 2.12 million gallons per day (MGD)

Outfall # 014 – Cannon Range – Training Range Area (Smoke Training) (called "BB" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 23, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0568599, Y = 4166468)
Receiving Water Body (Stream): Unnamed tributary to Roubidoux Creek (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01514)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 147 million gallons per day (MGD)

Outfall # 015 – Smoke Training Area (called "CC" on FLW Maps)
Legal Description: NE ¼, SW ¼, Sec. 5, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573502, Y = 4182791)
Receiving Water Body (Stream): Roubidoux Creek (C) (01513)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 449 million gallons per day (MGD)

Outfall # 016 – Numerous Training Activities on Fort Leonard Wood (called "EE" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 2, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0568365, Y = 4173043)
Receiving Water Body (Stream): Hurd Hollow (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 485 million gallons per day (MGD)

Outfall # 017 – Numerous Activities on Fort Leonard Wood (called "GG" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 2, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0578248, Y = 4183137)
Receiving Water Body (Stream): Unnamed tributary to Dry Creek (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040003)
Design flow = 44 million gallons per day (MGD)

FACILITY DESCRIPTION (continued)

STORMWATER OUTFALLS (continued)

Outfall # 018 – Bridge Training Area Settling Basin (former Outfall # 002 of former MO0058068)
Legal Description: SE ¼, SE ¼, Sec. 20, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0584045, Y = 4177339)
Receiving Water Body (Stream): Unnamed tributary to Big Piney (U)
First Classified Water Body (Stream): Big Piney (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 0.001 million gallons per day (MGD)
Actual flow = 0.001 million gallons per day (MGD)

Outfall # 019 – Training Area (TA) 244 – Wash Rack with Oil/Water Separator (former Outfall # 003 of former MO0058068)
Legal Description: SW ¼, NE ¼, Sec. 32, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573890, Y = 4174918)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 0.125 million gallons per day (MGD)
Actual flow = 0.125 million gallons per day (MGD)

Outfall # 020 – Training Area (TA) 236 – Low Level Water Vehicle Crossing – Wheeled Obstacle Course Water Hazard with Oil/Water Separator
Legal Description: NE ¼, SW ¼, Sec. 5, T34N, R11W, Pulaski County
UTM Coordinates: (X = 0573328, Y = 4172141)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 0.001 million gallons per day (MGD)
Actual flow = 0.001 million gallons per day (MGD)

RECEIVING WATER BODY (STREAM) MONITORING POINTS

Roubidoux Creek Upstream Monitoring Point (where Roubidoux Creek enters Fort Leonard Wood property–Hwy. 17)
Legal Description: NE ¼, NE ¼, Sec. 3, T33N, R12W, Texas County
UTM Coordinates: (X = 0567618, Y = 4161832)

Roubidoux Creek Downstream Monitoring Point [where Roubidoux Creek exits Fort Leonard Wood property–West Gate (Polla Rd. bridge)]
Legal Description: SE ¼, NW ¼, Sec. 6, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0571999, Y = 4183060)

Big Piney River Upstream Monitoring Point (where Big Piney River enters Fort Leonard Wood property–Ross bridge Western Rd.)
Legal Description: SW ¼, SE ¼, Sec. 8, T34N, R10W, Pulaski County
UTM Coordinates: (X = 0583607, Y = 4168961)

Big Piney River Downstream Monitoring Point (where Big Piney River exits Fort Leonard Wood property–East Gate Rd. bridge)
Legal Description: SW ¼, NW ¼, Sec. 17, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0582962, Y = 4179597)

A. STORMWATER (EFFLUENT) LIMITATIONS AND MONITORING REQUIREMENTS

Permittee authorized to discharge from outfall(s) with serial number(s) as specified in the application for this operating permit. **Final stormwater (effluent) limitations** shall become effective upon issuance (renewal) date and shall remain in effect until operating permit expiration. Such discharges shall be controlled, limited and monitored by permittee as specified below:

OUTFALL NUMBER and EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Active Stormwater Outfalls # 001, # 004, # 006, # 007, # 012, # 013, # 014, # 015, # 016, # 017, # 018, # 019 and # 020						
Flow	MGD	*		*	Once per year	24 hr. estimate
Settleable Solids	mL/L/hr	2.5		1.5	Once per year	grab
Oil and Grease	mg/L	15		10	Once per year	grab
Total BETX****	mg/L	0.75		0.75	Once per year	grab
Phosphorus (P), Total	mg/L	*		*	Once per year	grab
Biochemical Oxygen Demand	mg/L	*		*	Once per year	grab
Chemical Oxygen Demand	mg/L	*		*	Once per year	grab
pH	SU	**		**	Once per year	grab
Nitrogen (N), Total as Nitrate (NO_3)	mg/L	10		10	Once per year	grab
Hardness, Total as $CaCO_3$ **(Note 1)**	mg/L	*		*	Once per year **(Note 1)**	grab
Lead (Pb), Total Recoverable **(Note 1)**	mg/L	0.02		0.02	Once per year **(Note 1)**	grab

MONITORING REPORTS SHALL BE SUBMITTED Annually. FIRST REPORT DUE: January 28, 2011 .

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS OPERATING PERMIT SUBJECT TO ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980 , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Permittee authorized to discharge from outfall(s) with serial number(s) as specified in the application for this operating permit. **Final effluent limitations** shall become effective upon issuance (renewal) date and shall remain in effect until operating permit expiration. Such discharges shall be controlled, limited and monitored by permittee as specified below:

OUTFALL NUMBER and EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Roubidoux Creek Upstream and Downstream Monitoring Big Piney River Upstream and Downstream Monitoring						
Oil and Grease	mg/L	*		*	Twice per year***	grab
Phosphorus (P), Total	mg/L	*		*	Twice per year***	grab
Biochemical Oxygen Demand	mg/L	*		*	Twice per year***	grab
Chemical Oxygen Demand	mg/L	*		*	Twice per year***	grab
pH	SU	*		*	Twice per year***	grab
Nitrogen (N), Total as Nitrate (NO_3)	mg/L	*		*	Twice per year***	grab

MONITORING REPORTS SHALL BE SUBMITTED Annually***. FIRST REPORT DUE: January 28, 2011.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS OPERATING PERMIT SUBJECT TO ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. STORMWATER (EFFLUENT) AND/OR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only

** pH measured in pH standard units (SUs) and is not to be averaged. pH limited to the range of 6.5-9.0 pH SUs

*** Sample twice per year (once in April and once in October). Reporting due annually by January 28th the following calendar year

**** Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene and Xylene

Note 1 – The measurement (sampling) and monitoring frequency for the Total Recoverable Lead (Pb) and Total Hardness stormwater (effluent) parameters for all stormwater outfalls is once per year **except for Outfalls # 001, # 013 and # 014 which is once per quarter for both the Total Recoverable Lead (Pb) and Total Hardness stormwater (effluent) parameters.** Reporting for all active stormwater outfalls due annually by January 28th the following calendar year. See table below for once per quarter (quarterly) measurement (sampling), monitoring and reporting:

Sample stormwater (effluent) discharges from **Outfalls # 001, # 013 and # 014** at least once for the months of:	Report due:
January, February, March (1st Quarter)	January 28
April, May, June (2nd Quarter)	January 28
July, August, September (3rd Quarter)	January 28
October, November, December (4th Quarter)	January 28

C. SPECIAL CONDITIONS

1. This operating permit may be reopened and modified, or alternatively revoked and reissued, to:

   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

      (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the operating permit; or

      (2) Controls any pollutant not limited in the operating permit.

   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.

   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The operating permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Changes in Discharges of Toxic Substances

   Permittee shall notify the Director as soon as it knows or has reason to believe:

   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the operating permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 µg/L);

      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

      (3) Five (5) times the maximum concentration value reported for the pollutant in the operating permit application; or

      (4) The level established in Part A of the operating permit by the Director.

   (b) That permittee has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the operating permit application.

   (c) That the effluent limit established in part A of the operating permit will be exceeded.

5. Report as no-discharge when a discharge does not occur during the reporting period.

6. Water Quality Standards

   (a) Discharges to waters of the state shall not cause a violation of Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(3) and (4)], Water Quality, Water Quality Standards, General Criteria and Specific Criteria.

   (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

C. SPECIAL CONDITIONS (continued)

6. Water Quality Standards (continued)

(b) General Criteria (continued)

(2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

(3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;

(4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;

(5) There shall be no significant human health hazard from incidental contact with the water;

(6) There shall be no acute toxicity to livestock or wildlife watering;

(7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community; and

(8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in the Missouri Solid Waste Management Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Sections 260.200-260.247, RSMo.

7. Permittee shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP). Said SWPPP must be prepared within 60 calendar days and implemented within 120 calendar days of operating permit issuance (renewal). Said SWPPP must be kept onsite and should not be sent to the Department unless requested. Said SWPPP must be reviewed and updated, if needed, every five (5) calendar years or as site conditions change. Permittee shall select, install, use, operate, and maintain the Best Management Practices (BMPs) prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The Stormwater Pollution Prevention Plan (SWPPP) must include the following:

(a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater;

(b) A schedule for a bi-monthly site inspections and a brief written report. Said inspections must include observation and evaluation of Best Management Practices (BMPs) effectiveness. Deficiencies must be corrected within seven (7) calendar days and the actions taken to correct deficiencies shall be included with said written report to include photographs. Any corrective measure that necessitates major construction may also need a construction permit. Said inspection reports must be kept onsite with the Stormwater Pollution Prevention Plan (SWPPP) and maintained for a period of five (5) calendar years. Said inspection reports must be made available to the Department upon request;

(c) A provision for designating an individual to be responsible for environmental matters; and

(d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted to the Department upon request.

8. Permittee shall adhere to the following minimum Best Management Practices (BMPs):

(a) Prevent spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent stormwater contamination from these substances;

C. SPECIAL CONDITIONS (continued)

8. (continued)

(b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products and solvents;

(c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed Best Management Practices (BMPs) such as plastic lids and/or portable spill pans to prevent commingling of stormwater with container contents. Commingled water may not be discharged under this operating permit. Provide spill prevention control, countermeasures and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent groundwater contamination;

(d) Provide good housekeeping practices onsite to keep trash from entry into waters of the state; and

(e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with final stormwater (effluent) limitations.

9. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution of waters of the state in accordance with Missouri Clean Water Commission regulation [10 CSR 20-2.010(56)], Definitions, Definitions, Pollution, and corrective actions means the facility took steps to eliminate the deficiency.

10. All fueling facilities present onsite shall adhere to applicable federal and state regulations concerning underground storage, aboveground storage, and dispensers to include spill prevention control and countermeasures.

11. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERCLA.

12. The US Army Installation Management Command (INCOM) and Fort Leonard Wood and/or permittee will protect the asphalt plant located at the asphalt training facility from the 100 year flood event by appropriate methods.

13. Permittee must submit a written notice to the Department 60 calendar days prior to the use of any new toxic chemical(s). In accordance with Part C., Special Conditions, 1.(a)(2), above, the Department will modify (if applicable) and public notice this operating permit if the Department determines that use of the chemical could affect the environment if exposed to stormwater.

14. The following special conditions are being placed in this operating permit for the use of dust suppressants:

(a) Dust suppressants shall not be applied within 300 feet of waters that have been identified as:

(1) A losing stream or water bodies listed in Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031, Table D and Table E], Water Quality, Outstanding National Resource Waters, and Outstanding State Resource Waters;
(2) A lake or reservoir used for public drinking water supplies;
(3) Critical habitat for endangered species; or
(4) A bio-criteria reference stream.

(b) Dust suppressants shall not be applied within 100 feet of waters classified as L2 (major reservoir) or P (permanent flow) (except for the Missouri and Mississippi Rivers);

(c) Dust suppressants shall not be applied to a sinkhole or other direct conduit to groundwater; and

(d) Dust suppressants shall not be applied in such a manner that the Department receives a complaint, and upon Department investigation, finds that applied dust suppressant(s) is causing a violation of general water quality criteria.

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF RENEWING
MISSOURI STATE OPERATING PERMIT # MO0117251
US ARMY INSTALLATION COMMAND (IMCOM) AND FORT LEONARD WOOD
PULASKI COUNTY

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) operating permit program. This program regulates pollutant(s) discharges from point sources into the waters of the United States, and the stormwater releases from certain point sources. All such discharges are unlawful without an operating permit (Section 301 of the "Clean Water Act"). After an operating permit is obtained, a discharge not in compliance with all operating permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and the "Missouri Clean Water Law", Section 644, as amended). MSOPs (operating permits) are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)], Protection of Environment, Water Programs, Procedures for Decisionmaking, General Program Requirements, Fact sheet, and Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-6.020(1)(A)2.], Permits, Public Participation, Hearings and Notice to Governmental Agencies, Public Participation, a Fact Sheet shall be prepared to give pertinent information regarding applicable regulations, development rationale for effluent limitations and conditions, and public participation process for the Missouri State Operating Permit (MSOP) listed below.

A Fact Sheet is not an enforceable part of Missouri State Operating Permit (MSOP).

This Fact Sheet is for a(n):

Major ☐; Minor ☒; Industrial Facility ☐; Variance ☐; Master General Permit ☐;
General Permit Covered Facility ☐; Operating permit with widespread public interest ☐

Part I - Facility Information

Facility Type: National Security (Military Installation – Army)
Facility Standard Industrial Classification (SIC) Code(s): # 9711

Facility Description: Stormwater Outfalls # 001, # 004, # 006, # 007, # 012, # 013, # 014, # 015, # 016, # 017, # 018, # 019 and # 020

Have any changes occurred at this facility or in the receiving water body (stream) that effects final stormwater (effluent) limitation derivation? Yes ☐; No ☒

Application Date: October 23, 2009

Expiration Date: April 21, 2010

Last Inspection: June 7, 2010

In Compliance ☐; Non-compliance ☒; From June 11, 2010, environmental compliance inspection report narrative: "Due to the deficiencies noted during said inspection, the Department requires some action from Fort Leonard Wood to ensure that future compliance with subject *[Missouri State Operating Permit]* (MSOP) is achieved. Within 30 calendar days of receipt of this certified Letter of Warning, Fort Leonard Wood is required to submit, to the Department, a letter identifying the causes of non-compliance and what action has been taken or will be taken to ensure future compliance with required permitted final effluent limitations. Failure to respond within the above mentioned and specified timeframe will result in the issuance of a Notice of Violation. Deficiencies: Final Effluent Limitations. A cursory review of facility's file shows that the last two (2) years of monitoring show six (6) final effluent violations for various stormwater outfalls around the installation; Observations and Recommendations: (1) Permit Expiration. Facility's MSOP expired on April 1, 2010. The Department received a renewal application for facility on October 23, 2009. Facility must continue to operate facility in accordance with all *[Missouri Clean Water Commission]* (MCWC) regulations, terms and conditions of the expired permit until a renewed MSOP can be issued by the Department; (2) Stormwater Outfalls. Due to the vast distribution of outfalls and due to limited time allocation, outfalls noted above for final effluent limitations violations to include Outfalls # 007, # 019 and # 020 were visited during the inspection. Below is a summary of the outfall observations noted during the inspection: (a) Outfall # 001. This stormwater outfall

incorporates many training areas and multiple active land disturbance sites, and this drainage is located within the bulldozer/heavy equipment Training Area (TA) 244 which is constantly disturbed due to the nature of training activities. Said outfall was adequately posted and is located at a low water bridge that crosses Smith Branch. Aside from slight turbidity due to vehicle traffic crossing the bridge, excessive sediment was not observed and the water body appeared to be clear and free from any noticeable solids; (b) Outfall # 006. This outfall is located at the asphalt training facility's oil/water separator. At the time of the inspection, there was no discharge from said separator. Small spots of an iridescent sheen were noted inside the structure's detention basin. These spots did not appear to be related to a fuel or petroleum based substance, but appeared to be the result of decomposition of vegetation/algae that had accumulated within the basin. Although the visual Oil and Grease effluent parameter for said outfall was exceeded *[on January 8, 2008]*, analytical results for the Oil and Grease effluent parameter sample taken the same day, show compliance for that effluent parameter; (c) Outfall # 007. This outfall is located downstream from the rock quarry training area. At the time of the inspection, an outfall sign could not be located. Ms. Crews informed me that said outfall was recently relocated and the exact location could not be observed. The location of this relocated outfall should be verified and an outfall sign should be posted as required by facility's MSOP. If the legal description for said outfall has changed, the new legal description should be submitted to the Department to ensure an accurate location is listed in the upcoming permit renewal; (d) Outfall # 013. This outfall is located behind live firing ranges on the south-southeast portion of the installation. Due to the location of said outfall and the inherent dangers and logistical issues associated with viewing said outfall, said outfall was not observed. A future site visit will be scheduled when the ranges are not in use to visually inspect said outfall; (e) Outfall # 017. This outfall is located on the northeastern corner of the installation. Said outfall is positioned at a low water crossing on an Unnamed Tributary to Dry Creek. Said outfall was properly posted. At the time of the inspection, there was no observed discharge at said outfall; (f) Outfall # 019. This outfall monitors a heavy equipment wash rack that uses an oil/water separator. At the time of inspection, this facility was being actively used. Said outfall was posted with appropriate signage as required; (g) Outfall # 020. This outfall is currently under construction and was not operational at the time of inspection. Said outfall is associated with an oil/water separator for an obstacle course water hazard; Closing Remarks: Due to the monitoring violations detailed in the Deficiencies section above, facility cannot be considered in compliance with its MSOP and associated MCWC regulations. Please take appropriate steps to return your facility to compliance as soon as possible."

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS*)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	280.068	Best Management Practices (BMPs)	Stormwater runoff	< 2.0
004	0.040	BMPs	Stormwater runoff	< 2.0
006	22.436	BMPs	Stormwater runoff	< 2.0
007	10.058	BMPs	Stormwater runoff	< 2.0
008	Unknown	BMPs	Stormwater runoff	< 2.0
012	165.565	BMPs	Stormwater runoff	< 2.0
013	3.280	BMPs	Stormwater runoff	< 2.0
014	227.458	BMPs	Stormwater runoff	< 2.0
015	694.754	BMPs	Stormwater runoff	< 2.0
016	750.458	BMPs	Stormwater runoff	< 2.0
017	68.083	BMPs	Stormwater runoff	< 2.0
018	0.002	BMPs	Stormwater runoff	< 2.0
019	0.193	BMPs	Stormwater runoff	< 2.0
020	0.002	BMPs	Stormwater runoff	< 2.0

* - CFS – Cubic feet per second

Outfall # 001 – Smith Branch
Components: Explosives Detonation Area (FLW–4, FLW–5 and FLW–6; SW ¼, Sec. 31, T35N, R11W, Pulaski County); Forney Army Airfield (FLW–12; NW ¼, Sec. 27, T35N, R11W, Pulaski County); Forney Army Airfield (FLW–13; SE ¼, Sec. 28, T35N, R11W, Pulaski County); and Normandy Training Area (FLW–15; Sec. 29 and Sec. 32, T35N, R11W, Pulaski County); Smoke training
Legal Description: SW ¼, SW ¼, Sec. 29, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0572802, Y = 4175719)
Receiving Water Body (Stream): Smith Branch (U)

First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design Flow = 181 million gallons per day (MGD)

Outfall # 002 – Eliminated prior to October 1, 1999

Outfall # 003 – Eliminated prior to October 1, 1999

Outfall # 004 – Unnamed tributary to Big Piney River
Components: Defense Reutilization and Marketing Office (DRMO) (FLW–1; NW ¼, Sec. 13, T35N, R11W, Pulaski County); and Bulk Fuel Storage (FLW–2; NW ¼, Sec. 13, T35N, R11W, Pulaski County)
Legal Description: NE ¼, SE ¼, Sec. 13, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0580979, Y = 4179387)
Receiving Water Body (Stream): Unnamed tributary to Big Piney River (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 0.026 million gallons per day (MGD)

Outfall # 005 – Eliminated prior to October 1, 1999

Outfall # 006 – Asphalt Training Facility – Oil/Water Separator (Discharge Pipe)
Components: Asphalt Training Facility (FLW–14; NE ¼, Sec. 36, T35N, R11W, Pulaski County); Smoke training
Legal Description: NE ¼, SW ¼, Sec. 5, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573502, Y = 4182791)
Receiving Water Body (Stream): Roubidoux Creek (C) (01513)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 14.5 million gallons per day (MGD)

Outfall # 007 – Rock Quarry Sediment Pond
Components: Rock Quarry (FLW–17; N ½, Sec. 31, T35N, R10W, Pulaski County)
Legal Description: SE ¼, NW ¼, Sec. 31, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0581578, Y = 4174875)
Receiving Water Body (Stream): Unnamed tributary to Big Piney River (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 6.5 million gallons per day (MGD)

Outfall # 008 – Sanitary Landfill (outfall not sampled)
Components: Sanitary Landfill (FLW–8, FLW–9 and FLW–10; NW ¼, Sec. 5, T34N, R11W, Pulaski County
Legal Description: SW ¼, SE ¼, Sec. 32, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573864, Y = 4174244)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = unknown

Outfall # 009 – Eliminated prior to October 1, 1999

Outfall # 010 – Eliminated prior to October 1, 1999

Outfall # 011 – Eliminated prior to October 1, 1999

Outfall # 012 – Bailey–McCann Hollow (near McCann Cemetery)
Legal Description: SE ¼, SE ¼, Sec. 2, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0569357, Y = 4171184)
Receiving Water Body (Stream): Unnamed tributary to Hurd Hollow (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 107 million gallons per day (MGD)

Outfall # 013 – Training Range Area (called "AA" on FLW Maps)

Legal Description: SE ¼, NE ¼, Sec. 2, T34N, R11W, Pulaski County
UTM Coordinates: (X = 0578944, Y = 4172541)
Receiving Water Body (Stream): Unnamed tributary to McCourtney Hollow (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 2.12 million gallons per day (MGD)

Outfall # 014 – Cannon Range – Training Range Area (Smoke Training) (called "BB" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 23, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0568599, Y = 4166468)
Receiving Water Body (Stream): Unnamed tributary to Roubidoux Creek (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01514)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 147 million gallons per day (MGD)

Outfall # 015 – Smoke Training Area (called "CC" on FLW Maps)
Legal Description: NE ¼, SW ¼, Sec. 5, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573502, Y = 4182791)
Receiving Water Body (Stream): Roubidoux Creek (C) (01513)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 449 million gallons per day (MGD)

Outfall # 016 – Numerous Training Activities (called "EE" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 2, T34N, R12W, Pulaski County
UTM Coordinates: (X = 0568365, Y = 4173043)
Receiving Water Body (Stream): Hurd Hollow (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060004)
Design flow = 485 million gallons per day (MGD)

Outfall # 017 – Numerous Activities on Fort Leonard Wood (called "GG" on FLW Maps)
Legal Description: SE ¼, NW ¼, Sec. 2, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0578248, Y = 4183137)
Receiving Water Body (Stream): Unnamed tributary to Dry Creek (U)
First Classified Water Body (Stream): Big Piney River (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040003)
Design flow = 44 million gallons per day (MGD)

Outfall # 018 – Bridge Training Area Settling Basin (former Outfall # 002 of former MO0058068)
Legal Description: SE ¼, SE ¼, Sec. 20, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0584045, Y = 4177339)
Receiving Water Body (Stream): Unnamed tributary to Big Piney (U)
First Classified Water Body (Stream): Big Piney (P) (01566)
USGS Basin & Sub-watershed No.: (10290202–040002)
Design flow = 0.001 million gallons per day (MGD)
Actual flow = 0.001 million gallons per day (MGD)

Outfall # 019 – Training Area (TA) 244 – Wash Rack with Oil/Water Separator (former Outfall # 003 of former MO0058068)
Legal Description: SW ¼, NE ¼, Sec. 2, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0573890, Y = 4174918)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)
First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 0.125 million gallons per day (MGD)
Actual flow = 0.125 million gallons per day (MGD)

Outfall # 020 – Training Area (TA) 236 – Low Level Water Vehicle Crossing – Wheeled Obstacle Course Water Hazard with Oil/Water Separator
Legal Description: NE ¼, SW ¼, Sec. 5, T34N, R11W, Pulaski County
UTM Coordinates: (X = 0573328, Y = 4172141)
Receiving Water Body (Stream): Unnamed tributary to Smith Branch (U)

First Classified Water Body (Stream): Roubidoux Creek (C) (01513)
USGS Basin & Sub-watershed No.: (10290201–060005)
Design flow = 0.001 million gallons per day (MGD)
Actual flow = 0.001 million gallons per day (MGD)

RECEIVING WATER BODY (STREAM) MONITORING POINTS

Roubidoux Creek Upstream Monitoring Point (where Roubidoux Creek enters Fort Leonard Wood property–Hwy. 17)
Legal Description: NE ¼, NE ¼, Sec. 3, T33N, R12W, Texas County
UTM Coordinates: (X = 0567618, Y = 4161832)

Roubidoux Creek Downstream Monitoring Point [where Roubidoux Creek exits Fort Leonard Wood property–West Gate (Polla Rd. bridge)]
Legal Description: SE ¼, NW ¼, Sec. 6, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0571999, Y = 4183060)

Big Piney River Upstream Monitoring Point (where Big Piney River enters Fort Leonard Wood property–Ross bridge Western Rd.)
Legal Description: SW ¼, SE ¼, Sec. 8, T34N, R10W, Pulaski County
UTM Coordinates: (X = 0583607, Y = 4168961)

Big Piney River Downstream Monitoring Point (where Big Piney River exits Fort Leonard Wood property–East Gate Rd. bridge)
Legal Description: SW ¼, NW ¼, Sec. 17, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0582962, Y = 4179597)

Receiving Water Body's Water Quality and Facility Performance History: None.

Comments: None.

Part II – Operator Certification Requirements

As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-6.010(8)], Permits, Construction and Operating Permits, Terms and Conditions of a Permit, permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law (MCWL) and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with MCWC regulation [10 CSR 20-9.020(2)], Treatment Plant Operations, Classification of Wastewater Treatment Systems, Wastewater Treatment Systems Requirements, and any other applicable state law or regulation. As per MCWC regulation [10 CSR 20-9.010(2)(A)], Treatment Plant Operations, Classification of Wastewater Treatment Systems, Wastewater Treatment Systems Requirements, requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Owned or operated by or for:

Municipalities ☐; Public Sewer District ☐; County ☐; Public Water Supply Districts ☐;
Private sewer company regulated by the Public Service Commission ☐; State of Federal Agencies ☒

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200) and/or fifty (50) or more service connections.

Department required: Yes ☐; No ☒; Not applicable for stormwater discharges

☐ – Facility does not currently retain an operator with the correct level of certification required to operate the wastewater treatment facility. The Missouri Clean Water Law (MCWL) and its implementing Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-9.020(2)(F)], Treatment Plant Operations, Classification of Wastewater Treatment Systems, Wastewater Treatment Systems Requirements, allows the Department to develop a schedule of activities including the date by which compliance shall be obtained. This schedule of activities may be established in this operating permit as a Schedule of Compliance (SOC) or following Department consultation with permittee

☒ – Facility not required to retain a certified operator

Part III – Receiving Water Body (Stream) Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE: As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.015], Water Quality, Effluent Regulations, the waters of the state are divided into the below listed seven (7) categories. Each

category lists effluent limitations for specific parameters, which are presented in each stormwater outfall's **STORMWATER (EFFLUENT) TABLE** listed in **Part V – Final Stormwater (Effluent) Limitations Determinations** below and further discussed in the **DERIVATION AND DISCUSSIONS OF INTERIM AND/OR FINAL STORMWATER (EFFLUENT) LIMITATIONS** in **Part V – Final Stormwater (Effluent) Limitations Determinations** section below.

- Missouri or Mississippi River [10 CSR 20-7.015(2)] ☐
- Lake or Reservoir [10 CSR 20-7.015(3)] ☐
- Losing [10 CSR 20-7.015(4)] ☐
- Metropolitan No-Discharge [10 CSR 20-7.015(5)] ☐
- Special Stream [10 CSR 20-7.015(6)] ☐
- Subsurface Water [10 CSR 20-7.015(7)] ☐
- All Other Waters [10 CSR 20-7.015(8)] ☒

As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031], Water Quality, Water Quality Standards, the Department defines the MCWC water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses". The receiving water body (stream) and/or first classified receiving water body's (stream)'s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with MCWC regulation [10 CSR 20-7.031(3)], Water Quality, Water Quality Standards, General Criteria.

RECEIVING WATER BODY (STREAM) TABLE:

WATER BODY NAME	CLASS	WBID*	DESIGNATED USES**	8-DIGIT HUC***	EDU****
Smith Branch	U	--	General Criteria	10290201	Roubidoux Creek
Roubidoux Creek	C	01513	LWW; AQL; CLF; WBC (A); SCR		
Unnamed tributary to Big Piney River	U	--	General Criteria	10290202	Big Piney River
Big Piney River	P	01566	IRR; LWW; AQL; CLF; WBC (A); SCR; DWS		
Unnamed tributary to Smith Branch	U	--	General Criteria	10290201	Roubidoux Creek
Unnamed tributary to Hurd Hollow	U	--	General Criteria		
Unnamed tributary to McCourtney Hollow	U	--	General Criteria	10290202	Big Piney River
Unnamed tributary to Roubidoux Creek	U	--	General Criteria	10290201	Roubidoux Creek
Hurd Hollow	U	--	General Criteria		
Roubidoux Creek	C	01514	LWW; AQL; CLF; WBC (A); SCR		
Unnamed tributary to Dry Creek	U	--	General Criteria	10290202	
Unnamed tributary to Smith Branch	U	--	General Criteria	10290201	

* - Water body identification number (WBID)
** - Irrigation (IRR); Livestock and Wildlife Watering (LWW); Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL); Cool Water Fishery (CLF); Cold Water Fishery (CDF); Whole Body Contact Recreation (WBC); Secondary Contact Recreation (SCR); Drinking Water Supply (DWS); Industrial (IND); Groundwater (GRW)
*** - Hydrologic unit code (HUC)
**** - Ecological Drainage Unit (EDU)

**** - Use Attainability Analysis (UAA) has not been conducted for above stated water body

RECEIVING WATER BODY (STREAM) LOW-FLOW VALUES TABLE:

WATER BODY NAME	CLASS	WBID*	LOW-FLOW VALUES (CFS**)		
			$1Q_{10}$***	$7Q_{10}$***	$30Q_{10}$***
Smith Branch	U	--	--	--	--

Roubidoux Creek	C	01513	0.0	0.0	0.1
Unnamed tributary to Big Piney River	U	--	--	--	--
Big Piney River	P	01566	0.1	0.1	1.0
Unnamed tributary to Hurd Hollow	U	--	--	--	--
Uunamed tributary to McCourtney Hollow	U	--	--	--	--
Unnamed tributary to Roubidoux Creek	U	--	--	--	--
Hurd Hollow	U	--	--	--	--
Roubidoux Creek	C	01514	0.0	0.0	0.1
Unnamed tributary to Dry Creek	U	--	--	--	--
Unnamed tributary to Smith Branch	U	--	--	--	--

* - Water body identification number (WBID)
** - Cubic feet per second (CFS)
*** - Average minimum flow for one (1) consecutive calendar day that has a probable recurrence interval of once-in-ten (10) calendar years ($1Q_{10}$); Average minimum flow for seven (7) consecutive calendar days that has a probable recurrence interval of once-in-ten (10) calendar years ($7Q_{10}$); Average minimum flow for 30 (30) consecutive calendar days that has a probable recurrence interval of once-in-ten (10) calendar years ($30Q_{10}$)

RECEIVING WATER BODY (STREAM) MONITORING REQUIREMENTS: Monitoring Points:

Roubidoux Creek Upstream Monitoring Point (where Roubidoux Creek enters Fort Leonard Wood property–Hwy. 17)
Legal Description: NE ¼, NE ¼, Sec. 3, T33N, R12W, Texas County
UTM Coordinates: (X = 0567618, Y = 4161832)

Roubidoux Creek Downstream Monitoring Point [where Roubidoux Creek exits Fort Leonard Wood property–West Gate (Polla Rd. bridge)]
Legal Description: SE ¼, NW ¼, Sec. 6, T35N, R11W, Pulaski County
UTM Coordinates: (X = 0571999, Y = 4183060)

Big Piney River Upstream Monitoring Point (where Big Piney River enters Fort Leonard Wood property–Ross bridge Western Rd.)
Legal Description: SW ¼, SE ¼, Sec. 8, T34N, R10W, Pulaski County
UTM Coordinates: (X = 0583607, Y = 4168961)

Big Piney River Downstream Monitoring Point (where Big Piney River exits Fort Leonard Wood property–East Gate Rd. bridge)
Legal Description: SW ¼, NW ¼, Sec. 17, T35N, R10W, Pulaski County
UTM Coordinates: (X = 0582962, Y = 4179597)

MIXING CONSIDERATIONS: Not allowed per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(4)(A)4.B.(I)(a)], Water Quality, Water Quality Standards, Specific Criteria, For mixing zones, Streams with seven (7)-day Q_{10} low flows of less than 0.1 cfs, Mixing zone, the allowable mixing zone is one-quarter (1/4) of the stream width, cross-sectional area or volume of flow; length of one-quarter (1/4) mile; Zone of Initial Dilution: Not allowed per MCWC regulation [10 CSR 20-7.031(4)(A)4.B.(I)(b)], Water Quality, Water Quality Standards, Specific Criteria, For mixing zones, Streams with seven (7)-day Q_{10} low flows of less than 0.1 cfs, Zone of initial dilution

Part IV – Rationale and Derivation of Interim and/or Final (Stormwater) Effluent Limitations, and Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES: As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.015(4)(A)], Water Quality, Effluent Regulations, Effluent Limitations for Losing Steams, discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream, and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Applicable ☐; Facility discharges to a Losing Stream as defined by MCWC regulation [10 CSR 20-2.010(36)], Definitions, Losing stream, and [10 CSR 20-7.031(1)(N)], Water Quality, Water Quality Standards, Definitions, Losing Stream, and has submitted alternative evaluation(s).

Not applicable ☒: Facility does not discharge to a Losing Stream as defined by MCWC regulation [10 CSR 20-2.010(36)]. Definitions, Losing Streams, and [10 CSR 20-7.031(1)(N)], Water Quality, Water Quality Standards, Definitions, Losing stream.

ANTI-BACKSLIDING: A provision in the Federal Regulations, {Clean Water Act (CWA) [§ 303(d)(4)]}, Water Quality Standards and Implementation Plans, Limitations on Revision of Certain Effluent Limitations; the CWA [§ 402(e)], National Pollutant Discharge Elimination System *(NPDES)*, Suspension of Federal program upon submission of State program; withdrawal of approval of State program; return of State program to Administrator}; and [40 CFR Part 122.44(l)], Protection of Environment, Establishing limitations, requires a that a reissued operating permit to be as stringent as the previous operating permit with some exceptions:

New facility ☐; Backsliding does not apply

☒ – All interim and/or final effluent limitations in this Fact sheet are at lease as protective as those established in the previous operating permit; therefore, backsliding does not apply

☐ – Interim and/or final effluent limitations in this operating permit for the issuance (renewal) of this operating permit conform to anti-backsliding provisions of Section 402(o) of the Clean Water Act, and [40 CFR Part 122.44], Protection of Environment. Establishing limitations, standards, and other permit conditions (applicable to State National Pollutant Discharge Elimination System programs

ANTIDEGRADATION: In accordance with Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(2)], Water Quality, Water Quality Standards, Antidegradation, the Department shall document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

Renewal and/or modification ☒; No degradation proposed and no further review necessary

New and/or expanded discharge ☐; As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(2)(D)], Water Quality, Water Quality Standards, Antidegradation, the three (3) levels of protection provided by the antidegradation policy in subsections (A), (B) and (C) of this section shall be implemented according to procedures developed by the Department. On April 20, 2007, the MCWC approved the *Missouri Antidegradation Rule and Implementation Procedure* (Antidegradation Rule), which is applicable to new or upgraded/expanded facilities. The implementation of the Antidegradation Rule occurred on August 31, 2008. Any construction permit application or other applicable permit applications submitted prior to August 31, 2008, will not be required to have an Antidegradation Review.

☐ – Master General Permit Antidegradation Review conducted during template development.

APPLICABLE PERMIT PARAMETERS: Effluent parameters contained in Fact Sheets and Missouri State Operating Permits (MSOPs) are obtained from a Technology Based Effluent Limit (TBEL), Missouri's Effluent Regulations [10 CSR 20-7.015], Missouri's Water Quality Standards [10 CSR 20-7.031], previous Missouri State Operating Permits (MSOPs), and from operating permit applications.

AREA-WIDE WASTE TREATMENT MANAGEMENT AND CONTINUING AUTHORITY: As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-6.010(3)(B)], Permits, Construction and Operating Permits, Continuing Authorities: " … An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the department:".

BIO-SOLIDS, SLUDGE AND SEWAGE SLUDGE: Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e., fertilizer). Sludge is any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant; water supply treatment plant; air pollution control facility; or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to: domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment process(es); and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

Applicable (renewal and/or modification to existing operating permit ☐; Permittee has proposed to land apply sludge and bio-solids. Facility approved to land apply per MSOP, Part B., Standard Conditions, Part III, Sludge and Biosolids from Domestic Wastewater Treatment Facilities, and a Department-approved bio-solids management plan

Applicable (renewal and/or modification to existing operating permit ☐; Permittee has proposed that sludge and bio-solids are to be removed by a contract hauler for this facility.

Applicable (new operating permit) ☐: Permittee has proposed that sludge and bio-solids are not to be removed by a contract hauler for this facility. Permittee has proposed to land apply the sludge and bio-solids as per MSOP, Part B., Standard Conditions, Part III, Sludge and Biosolids from Domestic Wastewater Treatment Facilities. The Department has reviewed and approved permittee's bio-solids management plan, and therefore, permittee and/ or facility is approved to land apply said sludge and bio-solids as a means of treatment or disposal.

Not applicable ☒; This term and/or condition not applicable to permittee for this specific facility

COMPLIANCE AND ENFORCEMENT: Enforcement is the action taken by the Department's Division of Environmental Quality's Water Protection Program's Water Pollution Control Branch's Compliance and Enforcement Section to bring an entity into compliance with the Missouri Clean Water Law (MCWL); it's implementing MCWC regulations; and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the Department's Division of Environmental Quality's Water Protection Program's Water Pollution Control Branch's Compliance and Enforcement Section is to resolve violations and return the entity to compliance.

Applicable ☐; Not applicable ☒; Permittee and/or facility not currently under the Department's Division of Environmental Quality's Water Protection Program's Water Control Pollution Branch's Compliance and Enforcement Section enforcement action. Letter of Warning issued June 11, 2010, due to deficiencies noted from June 7, 2010, environmental compliance inspection

FLOW BASED PERMITTING: A standard mass-balance equation cannot be calculated for stormwater for stormwater outfalls from this installation because flow from active stormwater outfalls and flow in the receiving water bodies (streams) cannot be determined for conditions on any given day. The amount of stormwater discharged from active stormwater outfalls will vary based on previous rainfall, soil saturation, humidity, detention time, Best Management Practices (BMPs), surface permeability, etc. Flow in the receiving water bodies (streams) will vary based on similar climactic conditions, watershed size, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. It is likely that sufficient rainfall to cause a stormwater discharge for four (4) continuous days from a stormwater outfall will also cause some significant amount of flow in the receiving water bodies (streams). Chronic water quality standards are based on a four (4)-day exposure. In the event that stormwater discharge does occur from stormwater outfalls for four (4) continuous days, some amount of flow will occur in the receiving water bodies (streams). This flow will dilute stormwater discharges from a stormwater outfall. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving water body (stream). Sufficient rainfall to cause a stormwater discharge for one (1) hour or more from a stormwater outfall would not necessarily cause significant flow in a receiving water body (stream). Acute water quality standards are based on a one (1) hour of exposure, must be protected at all times in unclassified water bodies (streams), and within mixing zones of class P (permanent flow water bodies (streams) in accordance with Missouri Clean Water Commission regulation [10 CSR 20-7.031(3) and (4)], Water Quality, Water Quality Standards, General and Specific Criteria. Therefore, industrial stormwater facilities with toxic contaminants have the potential to cause a violation of acute water quality standards if those toxic contaminants occur in sufficient amounts. Due to the items mentioned above, Department staff drafting this Fact Sheet are unable to perform statistical Reasonable Potential Analysis (RPA) and calculate Wasteload Allocations (WLAs) via a mass-balance equation for final stormwater (effluent) limitations determination. However, Department staff may use their best professional judgment in determining if a stormwater discharging facility has a potential to violate Missouri's Water Quality Standards. Final stormwater (effluent) limitations are based on actual criteria that are subjected to Long Term Averages (LTAs) and then converted into Maximum Daily Limits (MDLs) or Average Monthly Limits (AMLs).

PRETREATMENT PROGRAM: The reduction of the amount of pollutants, the elimination of pollutants or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)], Protection of Enviroument, General Pretreatment Regulations for Existing and New Sources of Pollution, Definitions. Pretreatment programs are required at any Publicly Owned Treatment Works (POTW), or combination of POTW, operated by the same authority and/or municipality, with a total design flow greater than (>) five-point-zero (5.0) million gallons per day (MGD) and receiving industrial wastes that interfere with or pass through the POTW or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at a POTW/municipality with a design flow less than (<) 5.0 MGD if needed to prevent interference with operations or pass through. Several special conditions pertaining to permittee's and/or facility's pretreatment program may be included in an operating permit, and are as follows:

- Implementation and enforcement of the pretreatment program;
- Annual pretreatment report submittal;
- Submittal of list of industrial users;
- Technical evaluation of need to establish local limitations; and
- Submittal of the results of the evaluation

Applicable ☐; This permittee and/or facility have an approved pretreatment program in accordance with the requirements of [40 CSR Part 403], Protection of Environment, General Pretreatment Regulations for Existing and New Sources of Pollution,

and Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-6.100], Permits, General Pretreatment Regulation, and said permittee and/or facility is expected to implement and enforce its approved pretreatment program

Not applicable ☒; Permittee and/or facility, at this time, not required to have a pretreatment program or do not have a Department-approved pretreatment program

REASONABLE POTENTIAL ANALYSIS (RPA): Federal regulation [40 CFR Part 122.44(d)(1)(i)], Protection of Environment, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System, Permit Conditions, Establishing limitations, standards, and other permit conditions, Water quality standards and State requirements, requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with [40 CFR Part 122.44(d)(iii)], referenced above, if the Department permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the Water Quality Standard, the operating permit must contain effluent limitations for that pollutant.

Applicable ☐; A Reasonable Potential Analysis (RPA) conducted on appropriate parameters

Not applicable ☒; A Reasonable Potential Analysis (RPA) not conducted for this facility

REMOVAL EFFICIENCY: Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand–Five (5)-day (BOD_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTW)/municipalities (see the United States Environmental Protection Agency's (EPA's) Web site for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage at: www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm.

Applicable ☐; Secondary Treatment (85% removal) per [40 CFR Part 133.102(a)(3) and (b)(3)], Protection of Environment, Secondary Treatment Regulation, Secondary treatment, BOD_5 and SS. Facility is a Publicly Owned Treatment Works (POTW)

Applicable ☐; Equivalent to Secondary Treatment (65% removal) per [40 CFR Part 133 105(a)(3) and (b)(3)], Protection of Environment, Secondary Treatment Regulation Treatment equivalent to secondary treatment, BOD_5 and SS

Applicable ☐; Facility not a Publicly Owned Treatment Works (POTW); however, influent monitoring is being required to determine percent removal

Not applicable ☒; Influent monitoring not being required for this facility to determine percent removal

SANITARY SEWER OVERFLOWS (SSOS), BYPASSES, INFLOW AND INFILTRATION (I&I) – PREVENTION/REDUCTION: Sanitary Sewer Systems (SSSs) are municipal wastewater collection systems that convey domestic, commercial and industrial wastewater, and limited amounts of infiltrated groundwater and stormwater (i.e., inflow and infiltration (I&I)) to a Publicly Owned Treatment Works. SSSs are not designed to collect large amounts of stormwater runoff from precipitation events. Untreated or partially treated discharges from SSSs are commonly referred to as Sanitary Sewer Overflows (SSOs). SSOs have a variety of causes including: blockages; line breaks; sewer defects that allow excess stormwater and ground water to overload SSS; lapses in sewer system operation and maintenance; inadequate sewer design and construction; power failures; and vandalism. A SSO is defined as an untreated or partially treated sewage release from a SSS. SSOs can occur at any point in an SSS, during dry weather or wet weather. SSOs include overflows that reach waters of the state. SSOs also include overflows out of manholes and onto city streets, sidewalks and other terrestrial locations. SSSs can back up into buildings including private residences. When sewage backups are caused by problems in the publicly-owned portion of an SSS, said sewage backups are considered SSOs.

Applicable ☐; Permittee and/or facility required to develop or implement a program for maintenance and repair of the collection system and shall be required in this Missouri State Operating Permit (MSOP) by either means of a Special Condition or Schedule of Compliance (SOC). In addition, the Department considers the development of this program as an implementation of this condition. At this time, the Department recommends the United States Environmental Protection Agency's (US EPA's) *Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs At Sanitary Sewer Collection Systems* (Document # EPA 305-B-05-002). The *CMOM* identifies some of the criteria used by the US EPA to evaluate a collection system's management, operation and maintenance, and was intended for use by the US EPA, state, regulated community and/or third party entities. The *CMOM* is applicable to small, medium and large systems; both public and privately owned; and both regional and satellite collection systems. The *CMOM* does not substitute for the Federal Clean Water Act, the Missouri Clean Water Law (MCWL), Missouri Clean Water Commission (MCWC) regulations, and both federal and state regulations, as said *CMOM* is not a regulation

Not applicable ☒; Permittee and/or facility not required to develop and/or implement a program for maintenance and repair of the collection system; however, it is a violation of the Missouri Clean Water Law (MCWL) and associated Missouri Clean Water Commission (MCWC) regulations to allow untreated wastewater to discharge to waters of the state

SCHEDULE OF COMPLIANCE (SOC): A schedule of remedial measures included in an operating permit, including an enforceable sequence of interim requirements (actions, operations or milestone events) leading to compliance with the MCWL, and implementing Missouri Clean Water Commission (MCWC) regulations, and/or the terms and conditions of an operating permit.

Applicable ☐; The time given for effluent limitations of this operating permit listed under Paragraph A., Effluent Limitations and Monitoring Requirements, via Interim and/or Final Effluent Limitations, were established in accordance with Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(10)], Water Quality, Water Quality Standards

Not applicable ☒; This operating permit does not contain a Schedule of Compliance (SOC)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP): In accordance with [40 CFR 122.44(k)], Protection of Environment, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System *[NPDES]*, Permit Conditions, Establishing limitations, standards, and other permit conditions, Best Management Practices *[BMPs]*, BMPs are required to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under Section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the United States Environmental Protection Agency's (US EPA's) *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* [EPA 832-R-92-006] (Storm Water Management), Best Management Practices (BMPs) are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process(es), activity(ies), or physical structure(s). Additionally, in accordance with the Storm Water Management document reference above, a Stormwater Pollution Prevention Plan (SWPPP) is a series of steps and activities to: (1) Identify sources of pollution or contamination; and (2) Select and carry out actions which prevent or control the pollution of stormwater discharges.

Applicable ☒; A Stormwater Pollution Prevention Plan (SWPPP) shall be developed and implemented for each site, and shall incorporate required practices identified by the Department with jurisdiction; incorporate erosion control practices specific to site conditions; and provide for maintenance and adherence to the SWPPP

Not applicable ☐; At this time, permittee and/or facility not required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP)

VARIANCE: As per the Missouri Clean Water Law (MCWL), Section 644.061.4, RSMo, variances shall be granted for such period of time and under such terms and/or conditions as shall be specified by the Missouri Clean Water Commission (MCWC) in its order. Said variance(s) may be extended by affirmative action of the MCWC. In no event shall the variance(s) be granted for a period of time greater than is reasonably necessary for complying with the MCWL, Sections 644.006-644.141, RSMo, or any standard, rule or MCWC regulation promulgated pursuant to the MCWL, Sections 644.006-644.141, RSMo.

Applicable ☐; Not applicable ☒; This operating permit not drafted under premises of a petition for variance(s).

WASTELOAD ALLOCATIONS (WLA) FOR INTERIM AND/OR FINAL EFFLUENT LIMITATIONS: As per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-2.010(78)], Definitions, Waste load allocation, the amount of pollutant each discharger is allowed by the department to release into a given stream after the department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Applicable ☐; Wasteload allocations (WLAs) calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (EPA/505/2-90-001, Section 4.5.5)

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations (WLAs) were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute WLAs were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the

zone of initial dilution (ZID). Water quality based maximum daily and average monthly interim and/or final effluent limitations were calculated using methods and procedures outlined in the United States Environmental Protection Agency's (US EPA's) "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Not applicable ☒; Wasteload allocations (WLAs) not calculated

WASTELOAD ALLOCATIONS (WLA) MODELING: There are two (2) general types of effluent limitations: technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBELs must be used.

Applicable ☐; A wasteload allocations (WLA) study including modeling was submitted to the Department by _____. The wasteload allocations (WLA) study determined that the (parameter) for _____.

Not applicable ☒; A wasteload allocations (WLA) study was either not submitted or determined not applicable by Department staff

WATER QUALITY STANDARDS: Per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(3)], Water Quality, Water Quality Standards, General Criteria, shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR Part 122.44(d)(1)], Protection of Environment, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System *[NPDES]*, Permit Conditions, Establishing limitations, standards, and other permit conditions, Water quality standards and State requirements, directs the Department to establish, in each NPDES operating permit, conditions to achieve water quality established under the Clean Water Act (CWA) [§ 303], Water Quality Standards and Implementation Plans, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TESTING: A Whole Effluent Toxicity (WET) test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving water body (stream) water.

Applicable ☐: In accordance with the Clean Water Act (CWA) [§101(a)(3)], requiring Whole Effluent Toxicity (WET) testing is reasonably appropriate for site-specific Missouri State Operating Permits (MSOPs) for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). Furthermore, WET testing is a means by which the Department determines that Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031(3)(D), (F) and (G)], Water Quality, Water Quality Standards, General Criteria, are being met by the permitted facility. In addition to justification for WET testing, WET tests are required under MCWC regulation [10 CSR 20-6.010(8)(A)4.], Construction and Operating Permits, Terms and Conditions of Permits, to be performed by specialists who are properly trained in conducting WET testing according to the methods prescribed by the Federal Government as referenced in [40 CFR Part 136], Protection of Environment, Water Programs, Guidelines Establishing Test Procedures for the Analysis of Pollutants.. WET testing shall be required by all facilities meeting the following criteria:

☐ – Facility designated Major
☐ – Facility continuously or routinely exceeds its design flow
☐ – Industrial facility that alters production process throughout the year
☐ – Facility handles large quantities of toxic substances, or substances that are toxic in large amounts
☐ – Facility has interim and/or final effluent Water Quality-based Effluent Limitations (WQBELs) for toxic substances (Total Residual Chlorine) [other than ammonia (NH_3)]
☐ – Facility is a Public Owned Treatment Works (POTW), municipality or domestic discharger with a design flow greater than or equal to (≥) twenty-two-thousand-five-hundred (22,500) gallons per day (gpd)
☐ – Facility is a Public Owned Treatment Works (POTW), municipality or domestic discharger with a design flow less than (<) (≥) twenty-two-thousand-five-hundred (22,500) gallons per day (gpd)
☐ – Other

Not applicable ☒; At this time, permittee and/or facility not required to conduct Whole Effluent Toxicity (WET) testing for this facility

303(d) LIST AND TOTAL MAXIMUM DAILY LOAD (TMDL): Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (WBC) (such as swimming), maintaining fish and other aquatic life (AQL), and providing drinking water for people (DWS), livestock and wildlife watering (LWW). The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs. A Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation.

Applicable ☐; (Receiving water body's name) or (1st classified water body's name) is listed on the (YEAR) Missouri 303(d) List for (pollutant)

☐ – Facility not considered to be a source of the above listed pollutant(s) or not considered to contribute to the impairment of the above referenced water body
☐ – Facility considered to be a source of the above listed pollutant(s), considered to contribute to the above listed pollutant(s), considered to contribute or has the potential to contribute to the impairment of the above referenced water body

Not applicable ☒; Facility does not discharge to a 303(d) listed stream

Part V – Final Stormwater (Effluent) Limits Determinations

ACTIVE STORMWATER OUTFALL(S) # 001, # 004, # 006, # 007, # 012, # 013, # 014, # 015, # 016, # 017, # 018, # 019 and # 020

STORMWATER (EFFLUENT) LIMITATIONS TABLE:

STORMWATER (EFFLUENT) PARAMETER	UNITS	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS OPERATING PERMIT LIMITATIONS
FLOW	MGD	1/9	*	N/A	*	N/A	S
SETTTLEABLE SOLIDS	ML/L/HR	2/8	2.5	N/A	1.5	N/A	S
OIL AND GREASE	MG/L	1	15	N/A	10	N/A	S
TOTAL BTEX	MG/L	2	0.75	N/A	0.75	N/A	S
PHOSPHORUS (P), TOTAL	MG/L	8/9	*	N/A	*	N/A	S
BIOLOGICAL OXYGEN DEMAND	MG/L	1	*	N/A	*	N/A	S
CHEMICAL OXYGEN DEMAND	MG/L	9	*	N/A	*	N/A	S
pH	SU	1	6.5-9.0	N/A	6.5-9.0	YES	6.0-9.0
NITROGEN (N), TOTAL AS NITRATE (NO_3)	MG/L	2	10	N/A	10	N/A	S
HARDNESS, TOTAL	MG/L	2	*	N/A	*	YES	***
LEAD (PB), TOTAL RECOVERABLE	MG/L	2	0.020	N/A	0.020	N/A	S
MONITORING FREQUENCY	Please see **Minimum Measurement (Sampling), Monitoring and Reporting Frequency Requirements** in the DERIVATION AND DISCUSSION OF INTERIM AND/OR FINAL STORMWATER (EFFLUENT) LIMITATIONS section below.						

UPSTREAM AND DOWNSTREAM MONITORING

EFFLUENT LIMITATIONS TABLE:

EFFLUENT PARAMETER	UNITS	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS OPERATING PERMIT LIMITATIONS
OIL AND GREASE	MG/L	1	*	N/A	*	N/A	S
PHOSPHORUS, TOTAL	MG/L	8/9	*	N/A	*	N/A	S
BIOLOGICAL OXYGEN DEMAND	MG/L	1	*	N/A	*	N/A	S
CHEMICAL OXYGEN DEMAND	MG/L	9	*	N/A	*	N/A	S
pH	SU	1	*	N/A	*	N/A	S
NITROGEN (N), TOTAL AS NITRATE (NO_3)	MG/L	2	*	N/A	*	N/A	S
MONITORING FREQUENCY	Please see **Minimum Measurement (Sampling), aud Monitoring and Reporting Frequency Requirements** in the DERIVATION AND DISCUSSION OF INTERIM AND/OR FINAL STORMWATER (EFFLUENT) LIMITATIONS section below.						

* - Monitoring requirement only

** - Not in previous operating permit
N/A – Not applicable
S - Same as previous operating permit

Basis for Limitations Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes Reasonable Potential Analysis (RPA))
3. Water Quality Based Effluent Limits (WQBELs)
4. Lagoon Policy
5. Ammonia Policy
6. Dissolved Oxygen Policy
7. Antidegradation Policy
8. Water Quality Model
9. Best Professional Judgment
10. Total Maximum Daily Load (TMDL) or Operating Permit in lieu of TMDL
11. Whole Effluent Toxicity (WET) test Policy

OUTFALLS – DERIVATION AND DISCUSSION OF INTERIM AND/OR FINAL STORMWATER (EFFLUENT) LIMITATIONS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)], Protection of Environment, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System *[NPDES]*, Permit Conditions, Establishing limitations, standards, and other permit conditions (applicable to state NPDES programs). Monitoring requirements, volume of effluent discharged from each outfall required to assure compliance with Missouri State Operating Permit (MSOP) interim and/or final limitations. If permittee is unable to obtain effluent flow, then it is permittee's responsibility to inform the Department, which may require an operating permit modification submittal.

- **Settleable Solids (SS).** Final stormwater (effluent) limitations reassessed, deemed to still be protective of receiving water body's water quality and retained from previous Missouri State Operating Permit (MSOP). Settleable Solids (SS) from a stormwater outfall must not exceed a daily maximum of 2.5 mL/L/hr (please see **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Water Body (Stream) Information** section above).

- **Oil and Grease.** Final stormwater (effluent) limitations for the Oil and Grease effluent parameter reassessed, deemed to still be protective of receiving water body's water quality and retained from previous Missouri State Operating Permit (MSOP). Conventional pollutant. Final stormwater (effluent) limitations for protection of aquatic life per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031, Table A], Water Quality, Water Quality Standards, Criteria for Designated Uses (10 mg/L maximum monthly average, 15 mg/L daily maximum) (please see **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Water Body (Stream) Information** section above).

- **Oil and Grease–Visual.** The monitoring and reporting requirements for the Oil and Grease–Visual stormwater (effluent) parameter has been removed from subject Missouri State Operating Permit (MSOP) renewal for active stormwater outfalls, and for required upstream and downstream monitoring. Part A., Effluent Limitations and Monitoring Requirements, of subject MSOP includes final stormwater (effluent) limitations, and requires monitoring and analytical reporting for the Oil and Grease stormwater (effluent) parameter at all active stormwater outfalls, and for required upstream and downstream monitoring. Part C.6.(b), Special Conditions, Water Quality Standards, General Criteria, of subject MSOP, includes language regarding general water quality criteria applicable to all waters of the state at all times.

- **Total Benzene, Ethylbenzene, Toluene and Xylene (BETX).** Final stormwater (effluent) limitations reassessed, deemed to still be protective of receiving water body's water quality and retained from Missouri State Operating Permit (MSOP). Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene and Xylene (please see **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Water Body (Stream) Information** section above).

- **Phosphorus (P), Total.** Monitoring and reporting requirement only.

- **Biochemical Oxygen Demand.** Monitoring and reporting requirement only.

- **Chemical Oxygen Demand.** Monitoring and reporting requirement only.

- **pH.** Final stormwater (effluent) limitations changed from previous Missouri State Operating Permit. pH effluent parameter shall be maintained in the range from 6.5-9.0 standard units (SUs) per Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.015(8)(B)2.], Water Quality, Effluent Regulations, Effluent Limitations for All Waters (please see **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Water Body (Stream) Information** section above).

- **Nitrogen, Total as Nitrate (NO_3).** Final stormwater (effluent) limitations reassessed, deemed protective of drinking water supplies and retained from previous Missouri State Operating Permit (MSOP) in accordance with Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-7.031, Table A], Water Quality, Water Quality Standards, Criteria for Designated Uses (10 mg/L maximum monthly average, 10 mg/L daily maximum) (please see **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Water Body (Stream) Information** section above).

- **Metals–Lead (Pb), Total Recoverable.** Final stormwater (effluent) limitations reassessed. Due to reported final effluent limitations exceedances at Outfalls # 001 and # 013 during the last permit cycle, the Department has increased the measurement (sampling) and monitoring frequency for the Total Recoverable Lead (Pb) stormwater (effluent) parameter for Outfalls # 001, # 013 and # 014 from annually to quarterly in subject Missouri State Operating Permit (MSOP). Required increased monitoring (sampling) for the Total Recoverable Lead (Pb) stormwater (effluent) parameter for Outfalls # 001, # 013 and # 014 included to determine whether a "reasonable potential" to exceed water quality standards exists. This increased measurement (sampling) and monitoring frequency will yield sufficient data points for the Department to perform a Reasonable Potential Analysis at the end of the MSOP cycle for the Total Recoverable Lead (Pb) for Outfalls # 001, # 013 and # 014. Final stormwater (effluent) limitations for total recoverable metals developed using methods and procedures outlined in EPA/505/2-90-001 and *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007). Due to absence of contemporaneous stormwater (effluent) and in-stream data for total recoverable metals, dissolved metals, hardness and total suspended solids with which to calculate metals translators, partitioning between dissolved and absorbed phases assumed to be minimal (Section 5.7.3, Document # EPA/505/2-90-001). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness and total suspended solids are provided to the Department, partitioning evaluations may be considered and site-specific translators developed. Conversion factors for Lead (Pb) are hardness dependent. Values calculated using equation found in Section 1.3, Document # EPA 823-B-96-007. Monitoring and reporting requirement only for Lead (Pb), Dissolved parameter.

- **Metals–Dissolved Lead (Pb).** Final stormwater (effluent) limitations reassessed. The Department has removed the measurement (sampling), monitoring and reporting requirement for the Dissolved Lead (Pb) stormwater (effluent) parameter for all active stormwater outfalls from subject MSOP. Required submission of analytical results for the Total Recoverable Lead (Pb) stormwater (effluent) parameter incorporates dissolved lead (Pb) analysis.

- **Hardness, Total as $CaCO_3$.** Monitoring only requirement due to that metals toxicity such as Lead (Pb) toxicity varies by hardness.

- **Minimum Measurement (Sampling), Monitoring and Reporting Frequency Requirements.** See table below for minimum measurement (sampling), monitoring and reporting frequencies. Report submission date changed to January 28th of each year for consistency. Final stormwater (effluent) limitations reassessed, and measurement frequency increased from annually to quarterly in subject Missouri State Operating Permit (MSOP) for the Total Recoverable Lead (Pb) and Total Hardness stormwater (effluent) parameters for Outfalls # 001, # 013 and # 014. Required increased monitoring (sampling) for the Total Recoverable Lead (Pb) stormwater (effluent) parameter included to determine whether "reasonable potential" to exceed water quality standards exists. This increased sampling frequency will yield sufficient data points for the Department to perform a Reasonable Potential Analysis at the end of the operating permit cycle for the Total Recoverable Lead (Pb) stormwater (effluent) parameter for Outfalls # 001, # 013 and # 014. All sampling data taken must be submitted to the Department even if sampling occurs more frequently than required. Permittee may collect samples on a more frequent basis and averaged [expect for the pH stormwater (effluent) parameter] to show compliance with maximum monthly averages listed in the MSOP.

EFFLUENT PARAMETER	MONITORING (SAMPLING) FREQUENCY	REPORTING FREQUENCY
ACTIVE STORMWATER OUTFALLS		
FLOW	ONCE PER YEAR	ONCE PER YEAR
SETTLEABLE SOLIDS	ONCE PER YEAR	ONCE PER YEAR
OIL AND GREASE	ONCE PER YEAR	ONCE PER YEAR
TOTAL BTEX	ONCE PER YEAR	ONCE PER YEAR
PHOSPHORUS (P), TOTAL	ONCE PER YEAR	ONCE PER YEAR
BIOCHEMICAL OXYGEN DEMAND	ONCE PER YEAR	ONCE PER YEAR
CHEMICAL OXYGEN DEMAND	ONCE PER YEAR	ONCE PER YEAR
pH	ONCE PER YEAR	ONCE PER YEAR
NITRATE (NO_3), TOTAL AS NITROGEN (N)	ONCE PER YEAR	ONCE PER YEAR
HARDNESS, TOTAL AS $CaCO_3$	ONCE PER YEAR (NOTE 1)	ONCE PER YEAR
TOTAL RECOVERABLE LEAD (PB) (NOTE 1)	ONCE PER YEAR (NOTE 1)	ONCE PER YEAR
UPSTREAM AND DOWNSTREAM MONITORING POINTS		
OIL AND GREASE	TWICE PER YEAR	ONCE PER YEAR
PHOSPHORUS (P), TOTAL	TWICE PER YEAR	ONCE PER YEAR
BIOCHEMICAL OXYGEN DEMAND	TWICE PER YEAR	ONCE PER YEAR
CHEMICAL OXYGEN DEMAND	TWICE PER YEAR	ONCE PER YEAR
pH	TWICE PER YEAR	ONCE PER YEAR
NITRATE (NO_3), TOTAL AS NITROGEN (N)	TWICE PER YEAR	ONCE PER YEAR

Note 1 – The measurement (sampling) and monitoring frequency for the Total Recoverable Lead (Pb) and Total Hardness stormwater (effluent) parameters for all stormwater outfalls is once per year except for Outfalls # 001, # 013 and # 014 which is once per quarter for both the Total Recoverable Lead (Pb) and Total Hardness stormwater (effluent) parameter. Reporting for all active stormwater outfalls due annually by January 28th the following year. See table below for quarterly monitoring (sampling) and reporting:

Sample stormwater (effluent) discharges from **Outfalls # 001, # 013 and # 014** at least once for the months of:	Report due:
January, February, March (1st Quarter)	January 28
April, May, June (2nd Quarter)	January 28
July, August, September (3rd Quarter)	January 28
October, November, December (4th Quarter)	January 28

Part VI – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission (MCWC), proposes to issue an operating permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. Proposed determinations are tentative pending public comment.

PUBLIC NOTICE: As per the Missouri Clean Water Law (MCWL), Missouri Clean Water Commission (MCWC) regulations, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits (MSOPs) are directed to do so by a Department-approved Public Notice coversheet. This Public Notice coversheet is attached to a MSOP during the Public Notice period.

☒; The Public Notice period for this Missouri State Operating Permit (MSOP) is tentatively scheduled to begin on July 9, 2010, or is in process

☒; The Public Notice period for this Missouri State Operating Permit (MSOP) was from July 9, 2010, through August 8, 2010. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of interim and/or final effluent limitations and/or major modifications to the terms and conditions of this MSOP

DATE OF INITIAL FACT SHEET: AUGUST 24, 2009

DATE OF REVISED FACT SHEET: OCTOBER 20, 2009, JUNE 23, 2010, AND AUGUST 30, 2010

COMPLETED BY:
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