ADEQ

A R K A N S A S
Department of Environmental Quality

September 19, 2014

W.H. Calvin Murdock, Manager
Forrest City WWTP
303 North Rosser
Forrest City, AR 72336

RE: NPDES Inspection, Forrest City Wastewater Treatment Plant
AFIN: 62-00070 Permit No.: AR0020087

Dear Mr. Murdock:

On August 20, 2014, I performed a compliance evaluation inspection of the above referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.

Please refer to the "Summary of Findings" section of the attached inspection report and provide a written response for each violation that was noted. This response should be mailed to the attention of the Water Division Inspection Branch at the address at the bottom of this letter or e-mailed to Water-Inspection-Report@adeq.state.ar.us. This response should contain documentation describing the course of action taken to correct each item noted. This corrective action should be completed as soon as possible, and the written response with all necessary documentation (i.e. photos) is due by **October 3, 2014**.

If I can be of any assistance, please contact me at greenway@adeq.state.ar.us or 870-935-7221.

Sincerely,

Michael Greenway
District 3 Field Inspector
Water Division

ADEQ
ARKANSAS
Department of Environmental Quality

WATER DIVISION INSPECTION REPORT

AFIN: **62-00070**	PERMIT #: **AR0020087**	DATE: **8/20/2014**
COUNTY: **62 St. Francis**	PDS #: **079815**	MEDIA: **WN**
GPS LAT: **34.997413** LONG: **-90.835236** LOCATION: **Entrance**		

FACILITY INFORMATION

NAME:
Forrest City WWTP
LOCATION:
Approximately 3 miles west of Forrest City, at the end of SFC 209
CITY:
Forrest City, AR

RESPONSIBLE OFFICIAL

NAME: / TITLE
Larry Bryant / Mayor
COMPANY:
Forrest City WWTP
MAILING ADDRESS:
P.O. Box 1074
CITY, STATE, ZIP:
Forrest City AR 72336
PHONE & EXT: / FAX:
870-261-1424 /
EMAIL:
N/A

CONTACTED DURING INSPECTION: **No**

INSPECTION INFORMATION

FACILITY TYPE:	INSPECTOR ID#:
1 - Municipal	**86009 S - State**

FACILITY EVALUATION RATING:	INSPECTION TYPE:
1 - Unsatisfactory	**Compliance Evaluation**

DATE(S):	ENTRY TIME:	EXIT TIME:
8/20/2014	**10:55**	**14:10**

PERMIT EFFECTIVE DATE: **8/1/2012**
PERMIT EXPIRATION DATE: **7/31/2017**

FAYETTEVILLE SHALE RELATED: **N**

FAYETTEVILLE SHALE VIOLATIONS: **N**

INSPECTION PARTICIPANTS

NAME/TITLE/PHONE/FAX/EMAIL/ETC.:
Joel Thetford / Operator / 870-270-0201

AREA EVALUATIONS

(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)

S	PERMIT	**S**	FLOW MEASUREMENT	**	STORMWATER
S	RECORDS/REPORTS	**S**	LABORATORY	**M**	FACILITY SITE REVIEW
U	OPERATION & MAINTENANCE	**S**	EFFLUENT/RECEIVING WATER	**S**	SELF-MONITORING PROGRAM
S	SAMPLING	**S**	SLUDGE HANDLING/DISPOSAL	**	PRETREATMENT
**	OTHER:				

SUMMARY OF FINDINGS

This routine compliance evaluation inspection revealed the following:

1. **Improper operation and maintenance. This violates Part III, Section B, Item 1A of the Permit. The following items were noted:**
   - **A) There was a significant amount of erosion on the levees of the North sludge lagoon (Photos 1- 4).**
   - **B) The required freeboard (3 feet) was not maintained in the lagoons (photos 1-4).**
   - **C) There was evidence of leaks from the walls of the UV treatment unit (photo 5).**

Tall vegetation on the lagoon levees was also noted during the inspection. The operator stated that the vegetation would be cut soon, and documentation of this was submitted on September 9, 2014 (photos 4-5).

The condition of the lagoons was also noted in the previous inspection on April 17, 2014. The permittee submitted a copy of a construction proposal to address those issues. However, it appears that no work has been done to correct the violations. A plan and schedule for correcting the lagoon issues should be submitted with the response to this inspection.

GENERAL COMMENTS

A letter will be sent to the cognizant official.

INSPECTOR'S SIGNATURE: **Michael Greenway**	DATE: **9/18/2014**
SUPERVISOR'S SIGNATURE: **Jason Bolenbaugh**	DATE: **9/19/2014**

SECTION A: PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	☑Y ☐N ☐NA ☐NE
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	☐Y ☐N ☑NA ☐NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	☑Y ☐N ☐NA ☐NE
4. ALL DISCHARGES ARE PERMITTED:	☑Y ☐N ☐NA ☐NE
SECTION B: RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	☑Y ☐N ☐NA ☐NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	☑S ☐M ☐U ☐NA ☐NE
a. DATES AND TIME(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
b. EXACT LOCATION(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	☑Y ☐N ☐NA ☐NE
d. ANALYTICAL METHODS AND TECHNIQUES:	☑Y ☐N ☐NA ☐NE
e. RESULTS OF CALIBRATIONS:	☑Y ☐N ☐NA ☐NE
f. RESULTS OF ANALYSES:	☑Y ☐N ☐NA ☐NE
g. DATES AND TIMES OF ANALYSES:	☑Y ☐N ☐NA ☐NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	☑Y ☐N ☐NA ☐NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	☑S ☐M ☐U ☐NA ☐NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	☑S ☐M ☐U ☐NA ☐NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	☑Y ☐N ☐NA ☐NE
SECTION C: OPERATIONS AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	☐S ☐M ☑U ☐NA ☐NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	☑S ☐M ☐U ☐NA ☐NE
2. TREATMENT UNITS PROPERLY MAINTAINED: **Erosion of lagoon levees, inadequate freeboard in lagoons, excessive vegetation on lagoon levees,. leaks from UV unit.**	☐S ☐M ☑U ☐NA ☐NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED:	☑S ☐M ☐U ☐NA ☐NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	☑S ☐M ☐U ☐NA ☐NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	☑S ☐M ☐U ☐NA ☐NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED:	☑S ☐M ☐U ☐NA ☐NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED:	☑S ☐M ☐U ☐NA ☐NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	☑Y ☐N ☐NA ☐NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	☑Y ☐N ☐NA ☐NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	☑Y ☐N ☐NA ☐NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	☑Y ☐N ☐NA ☐NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	☑Y ☐N ☐NA ☐NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	☑Y ☐N ☐NA ☐NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT:	☐Y ☐N ☑NA ☐NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	☐Y ☐N ☑NA ☐NE

SECTION D: SAMPLING	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y ☐N ☐NA ☐NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	☑Y ☐N ☐NA ☐NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y ☐N ☐NA ☐NE
b. PROPER PRESERVATION TECHNIQUES USED:	☑Y ☐N ☐NA ☐NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y ☐N ☐NA ☐NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR: **(TP, and NO2/NO3)**	☑Y ☐N ☐NA ☐NE

SECTION E: FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: **Yes** TYPE OF DEVICE: **12" Parshall Flume**	☑Y ☐N ☐NA ☐NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	☑Y ☐N ☐NA ☐NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	☑Y ☐N ☐NA ☐NE
4. CALIBRATION FREQUENCY ADEQUATE:	☑Y ☐N ☐NA ☐NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑Y ☐N ☐NA ☐NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	☑Y ☐N ☐NA ☐NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	☑Y ☐N ☐NA ☐NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑Y ☐N ☐NA ☐NE
9. HEAD MEASURED AT PROPER LOCATION:	☑Y ☐N ☐NA ☐NE

SECTION F: LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y ☐N ☐NA ☐NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	☑Y ☐N ☐NA ☐NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	☑Y ☐N ☐NA ☐NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
5. DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
6. SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
7. COMMERCIAL LABORATORY USED:	☑Y ☐N ☐NA ☐NE
a. LAB NAME: **Environmental Services Company**	
b. LAB ADDRESS: **13715 West Markham St, Little Rock, AR 72211**	
c. PARAMETERS PERFORMED: **NH3-N, CBOD, FCB, Cu, TSS, TP, NO3+NO2-N**	
8. BIOMONITORING PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. PROPER ORGANISMS USED:	☑Y ☐N ☐NA ☐NE
b. PROPER DILUTION SERIES FOLLOWED:	☑Y ☐N ☐NA ☐NE
c. PROPER TEST METHODS AND DURATION:	☑Y ☐N ☐NA ☐NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	☑Y ☐N ☐NA ☐NE

SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS

BASED ON VISUAL OBSERVATIONS ONLY — ☑S ☐M ☐U ☐NA ☐NE

DETAILS:

OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	None	None	Low	None	None	Clear	--

SECTION H: SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS — ☑S ☐M ☐U ☐NA ☐NE

DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY: ☑S ☐M ☐U ☐NA ☐NE
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503: ☐S ☐M ☐U ☑NA ☐NE
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (E.G., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE):

SECTION I: SAMPLING INSPECTION PROCEDURES

SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS — ☐S ☐M ☐U ☑NA ☐NE

DETAILS:

1. SAMPLES OBTAINED THIS INSPECTION: ☐Y ☐N ☑NA ☐NE
2. TYPE OF SAMPLE: ☐GRAB:__ ☐COMPOSITE:__ METHOD:__ FREQUENCY:
3. SAMPLES PRESERVED: ☐Y ☐N ☑NA ☐NE
4. FLOW PROPORTIONED SAMPLES OBTAINED: ☐Y ☐N ☑NA ☐NE
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE: ☐Y ☐N ☑NA ☐NE
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE: ☐Y ☐N ☑NA ☐NE
7. SAMPLE SPLIT WITH PERMITTEE: ☐Y ☐N ☑NA ☐NE
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED: ☐Y ☐N ☑NA ☐NE
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT: ☐Y ☐N ☑NA ☐NE

SECTION J: STORM WATER POLLUTION PREVENTION PLAN

STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS — ☐S ☐M ☐U ☑NA ☐NE

DETAILS: **Facility has complied with the no exposure exclusion (Permit #ARR000222).**

1. SWPPP UPDATED AS NEEDED:__ DATE OF LAST UPDATE: ☐Y ☐N ☑NA ☐NE
2. SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS: ☐Y ☐N ☑NA ☐NE
3. POLLUTION PREVENTION TEAM IDENTIFIED: ☐Y ☐N ☑NA ☐NE
4. POLLUTION PREVENTION TEAM PROPERLY TRAINED: ☐Y ☐N ☑NA ☐NE
5. LIST OF POTENTIAL POLLUTANT SOURCES: ☐Y ☐N ☑NA ☐NE
6. LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS: ☐Y ☐N ☑NA ☐NE
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED: ☐Y ☐N ☑NA ☐NE
8. LIST OF STRUCTURAL BMPS: ☐Y ☐N ☑NA ☐NE
9. LIST OF NON-STRUCTURAL BMPS: ☐Y ☐N ☑NA ☐NE
10. BMPS PROPERLY OPERATED AND MAINTAINED: ☐Y ☐N ☑NA ☐NE
11. INSPECTIONS CONDUCTED AS REQUIRED: ☐Y ☐N ☑NA ☐NE

FLOW CALCULATION SHEET

Date: **8/20/2014** Time: **11:18**

Head in Inches: **12.12** Feet: **1.01**

Type & Size of Primary Flow Measurement Device: **12" Parshall Flume**

Name & Model of Secondary Flow Measurement Device: **Greyline SLT32**

Date of last Calibration of Secondary Flow Device: **8/12/2014**

Recorded Flow at Date & Time Listed Above: **2.534 MGD** (Facility Flow Meter)

Calculated Flow at Date & Time Listed Above: **2.624 MGD**

(Flow is calculated using flow charts in: ISCO Open Channel Flow Measurement Handbook-5th Edition)

$$\% \text{ Error} = \frac{\text{Recorded Value} - \text{Calculated Value}}{\text{Calculated Value}} \times 100$$

$$\% \text{ Error} = \frac{2.534 - 2.624}{2.624} \times 100$$

$$\% \text{ Error} = \frac{-.09}{2.624} \times 100$$

$$\% \text{ Error} = -.03 \times 100$$

% Error = **3** %

Comments: **The flow meter appeared to be adequately calibrated and maintained.**

DMR Calculation Check

Reporting Period: **From** 2014 (Year) 06 (Month) 01 (Day) **To** 2014 (Year) 06 (Month) 30 (Day)

Parameter Checked: D.O.

	Concentration Inst. Min. - mg/l
Reported Value:	7.2
Calculated Value:	7.2
Permit Value:	5

If calculated value does not equal reported value, explain: Equal

DMR Calculation Check

Reporting Period:	**From**	**2014** (Year)	**06** (Month)	**01** (Day)	**To**	**2014** (Year)	**06** (Month)	**30** (Day)

Parameter Checked: **T.P.**

	Loading Mass Mo. Avg. - lbs/day	**Concentration Monthly Mo. Avg. - mg/l**	**Concentration Monthly 7-day Avg. - mg/l**
Reported Value:	**23.8**	**1.7**	**1.9**
Calculated Value:	**23.80**	**1.69**	**1.87**
Permit Value:	**report**	**report**	**report**

If calculated value does not equal reported value, explain:

Equal when rounded to the nearest tenth.

Water Division Photographic Evidence Sheet					
Location:	**Forrest City WWTP**				
Photographer:	**Michael Greenway**	Date:	**8/20/2014**	Time:	**11:51**
Witness:	**None**			Photo #:	**1**
Description:	**View of the east levee of the north lagoon. Note the lack of freeboard and how narrow the top of the levee is.**				

Photographer:	**Michael Greenway**	Date:	**8/20/2014**	Time:	**11:52**
Witness:	**None**			Photo #:	**2**
Description:	**View of the east levee of the north lagoon. Note how the water has cut under the vegetation and the lack of freeboard.**				

Water Division Photographic Evidence Sheet					
Location:	**Forrest City WWTP**				
Photographer:	**N/A**	Date:	**N/A**	Time:	**N/A**
Witness:	**None**			Photo #:	**3**
Description:	**Photo submitted by the operator documenting that vegetation on the levee was trimmed. Note the lack of freeboard and the erosion on the inside of levee.**				

Photographer:	**N/A**	Date:	**N/A**	Time:	**N/A**
Witness:	**None**			Photo #:	**4**
Description:	**Photo submitted by the operator documenting that vegetation on the levee was trimmed. Note the lack of freeboard.**				

Water Division Photographic Evidence Sheet					
Location:	**Forrest City WWTP**				
Photographer:	**Michael Greenway**	Date:	**8/20/2014**	Time:	**13:59**
Witness:	**None**			Photo #:	**5**
Description:	**View of the outside wall of the UV unit. Note the cracks and evidence of leaks.**				

Photographer:	**Michael Greenway**	Date:	**8/20/2014**	Time:	**13:59**
Witness:	**None**			Photo #:	**6**
Description:	**Closer view of the wall shown in photo #5.**				

ADEQ

A R K A N S A S
Department of Environmental Quality

CERTIFIED MAIL: 91 7199 9991 7030 4936 8659

October 14, 2014

W.H. Calvin Murdock, Manager
Forrest City WWTP
303 North Rosser
Forrest City, AR 72336

RE: NPDES Inspection, Forrest City Wastewater Treatment Plant
AFIN: 62-00070 Permit No.: AR0020087

Dear Mr. Murdock:

A letter dated September 19, 2014, was sent by the ADEQ to you. The letter outlined the findings of my August 20, 2014, inspection of the above referenced facility. The letter requested that a written response be submitted to the Water Division Inspection Branch of this Department by October 3, 2014. To date, no response has been received.

Please submit a written response by **October 30, 2014**. A copy of the inspection report has been included for your convenience.

Thank you for your attention to this matter. Should you have any questions, feel free to contact me at greenway@adeq.state.ar.us, or 870-935-7221.

Sincerely,

Michael Greenway
District 3 Field Inspector
Water Division

FORREST CITY WATER UTILITY

303 NORTH ROSSER ST.

FORREST CITY, ARKANSAS 72335

870-633-2921

October 30, 2014

ADEQ certified mail #7013-3020-0001-6983-4780

5301 Northshore Dr.

North Little Rock, AR. 72118-5317

ATTN: Michael Greenway- District 3 Field Inspector-Water Division

Dear Sir:

RE: Response to Summary of Findings; August 20, 2014 Compliance Inspection

1. Improper operation and maintenance
   a) Erosion of levees- Please be reminded that the ponds have been utilized for the past (15) years for overflow. The current condition of lost freeboard was created by an extreme rain event on June 29th of this year, approximately 14" within twelve hours. Please review your photos of April of this year and there was 18"-24" freeboard. We recognize the problem and we are working very diligently to develop both a short term and long term solution. We are of course now into the rainy season so we don't anticipate being able to perform any work on the ponds until late spring at best.
   b) We are currently discharging approx.. 1.00MGD from the ponds
   c) Please find attached for your records our accepted proposal from Bryan Locke, LLC to perform Chemical injection for the cracks in our UV Structure. This work should be completed by November 20, 2014

Thank you for your continued supports. If there are further questions or concerns please contact me at your earliest opportunity.

Sincerely,

Forrest City Water Utility

W. H. Calvin Murdock, Manager

Whcm2@forrestcitywater.com

(870)261-2849 cell

Enclosures

BRYAN LOCKE, LLC

P.O. Box 303
Pittsfield NH 03263

Estimate

Date	Estimate #
10/13/2014	256

Phone #	603-231-1044

Name / Address
Forrest City Water Utillity 303 North russer St. Forrest City Arkansas 72335

Project

Description	Qty	Cost	Total
Polyeurthane crack injection is $45.00 per ft. with a minim of $3375.00	75	45.00	3,375.00
Mobilization I have not worked this far away before I am planning on driving by the time I ship my tools, equipment, and chemical get flights on a short notice rent a car driving is cheaper and I will have all my tools and about the same amount of time. I normally need a week or so notice depends what I am working on for a job.	1	3,850.00	3,850.00
I am going to add the warrantee on the estimate a 7 year warrantee		0.00	0.00

FORREST CITY WATER
UTILITY 3

OCT 13 2014

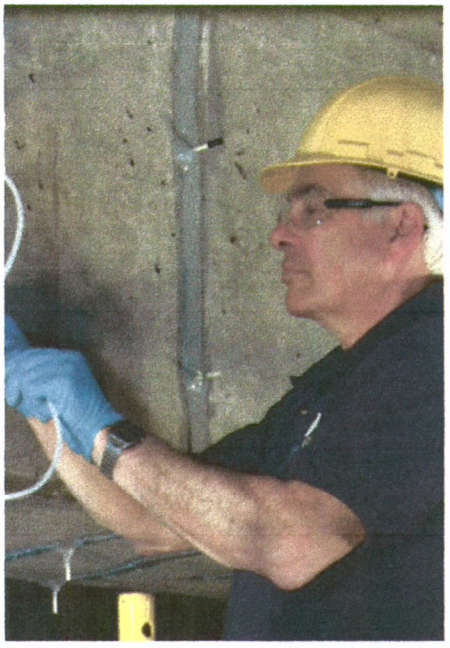
CASH ☐ CHECK ☐

		Total	$7,225.00

Fax #	E-mail	Web Site
603-269-5265	bryan.basementsolutions@gmail.com	http://basement-solutions-nh-ma.com

Chemical Grouting

Developed nearly fifty years ago, chemical grouting is the oldest and best method for impeding ground water infiltration into structurally sound sewer systems. Chemical grout is injected through leaking joints, cracks, faults and voids at lateral openings and other areas. The most common points of entrance for ground water infiltration are in manholes at joints and service line connections.



Installed packer

Polyurethane Grout

Polyurethane grout is often used in non-structural water infiltration/inflow related repairs. Our technicians inject polyurethane grout in actively leaking joints, cracks, faults and voids using mechanical packers that are installed by drdrilling the structure, inserting the packer and tightening. Polyurethane grout is then injected at high pressure. Two types of polyurethane grout are typically used in these applications, hydrophobic and hydrophilic. Hydrophobic grout repels, has high expansion and cures rigid. Hydrophilic absorbs water, has lower expansion and cures to a flexible foam. Both styles require an actively leaking crack as they are water activated. Polyurethane grouting is a common fix in water treatment plants also were tanks with unconsolidated or aging concrete leak.

Thul Specialty Contracting technicians benefit from over 35 years of successful experience in the application of chemical grout in thousands of lineal feet of cracks.

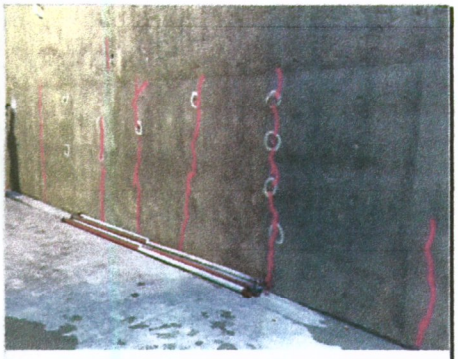
Epoxy Grout Injection

Epoxy grout injection is also used in the repair of a wide variety of concrete and other structures. Epoxy injection is a bonding process. The material fills cracks and welds them together structurally. Epoxy grout is also pushed through the crack under high pressure and the bond it forms is stronger than the substrate itself. This repair restores structural strength to the cracked concrete and mitigates concrete spall initiated by cracked concrete. Epoxy injection can be used to prevent the corrosion of reinforced steel and to fill voids in unconsolidated concrete.

Hydroactive polyurethane grout installed

Mechanical packers installed

Drilling and installing packers along a crack line



Identifying leaking cracks and marking for drilling

Drilling crack for installation of mechanical packers for polyurethane grout injection

Thul Specialty Contracting technicians benefit from over 35 years of successful experience in the application of chemical grout in thousands of lineal feet of cracks, in various types of structures, to halt inflow and infiltration, restore structural integrity and provide the necessary repair of failing concrete.

Our preferred suppliers are:
Lily Corporation
De Neef Construction Chemicals, Inc.

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763.576.8790 info@thulspecialtycontracting.com PO Box 322 Elk River MN 55330

Forrest City Water Utility
303 N. Rosser Street
Post Office Box 816
Forrest City, AR 72335

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ADEQ

Arkansas Department of
Environmental Quality
ATT: Michael Greenway –District 3
Field Inspector –Water Division
5301 North Shore Drive
North Little Rock, AR 72118–5317

ADEQ
ARKANSAS
Department of Environmental Quality

November 20, 2014

W.H. Calvin Murdock, Manager
Forrest City WWTP
303 North Rosser
Forrest City, AR 72336

RE: Forrest City Wastewater Treatment Plant; Inspection Response
AFIN: 62-00070 Permit No.: AR0020087

Dear Mr. Murdock:

I have reviewed the submitted information pertaining to my August 20, 2014 inspection of the above referenced facility. At this time, the ADEQ Water Division Inspection Branch has no further comment concerning this particular inspection. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site. The Department expects the corrective actions taken will be maintained to ensure consistent compliance with the requirements of the permit.

If we need further information concerning this matter, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at greenway@adeq.state.ar.us, or 870-935-7221.

Sincerely,

Michael Greenway
District 3 Field Inspector
Water Division