

ATTACHMENT 14
POST-CLOSURE CARE PLAN

City Water, Light & Power

CCR Impoundments – Lakeside and Dallman Ash Ponds

Springfield, Sangamon County, Illinois

Post-Closure Care Plan for Coal Combustion Residuals Surface Impoundments

February 2022



Submitted to:

Illinois Environmental Protection Agency
Bureau of Water
1021 North Grand Avenue East
Springfield, Illinois



Prepared for:

City Water, Light & Power
3100 Stevenson Drive
Springfield, Illinois 62703



3300 Ginger Creek Drive, Springfield, IL 62711 | 217.787.2334

ILLINOIS | MISSOURI | INDIANA

TABLE OF CONTENTS

| | |
|---------------------------------------|----------|
| 1. INTRODUCTION | 1 |
| 2. FACILITY DESCRIPTION | 1 |
| 3. POST-CLOSURE CARE PLAN..... | 1 |
| 3.1 Inspection and Maintenance | 1 |
| 3.2 Groundwater Monitoring | 3 |
| 3.2.1 Recordkeeping..... | 3 |
| 3.2.2 Financial Assurance..... | 4 |
| 4. CONTACT INFORMATION | 4 |
| 5. PLANNED PROPERTY USE..... | 4 |
| 6. STATEMENT | 4 |

FIGURES

Figure 1: Site Map

Figure 2: CWLP Coal Combustion Residuals Surface Impoundments

1. INTRODUCTION

City Water, Light and Power (CWLP) owns and operates two ash ponds which are defined as coal combustion residuals (CCR) surface impoundments. The impoundments include both the Lakeside and Dallman Ash Ponds and are being closed as a multi-unit system pursuant to Section 845.750. The plans and specifications for the installation of the final cover system along with the Construction Quality Assurance Plan are provided in Attachment 8 to the Closure Construction Application. This Post-Closure Care Plan has been prepared pursuant to Section 845.780(d) and is provided as Attachment 13 to the Closure Construction Application.

2. FACILITY DESCRIPTION

The impoundments are located north and east of the former Lakeside Power Generating Station and Dallman Power Generating Station in the Eastern ½ of Section 12, Township 15 North, Range 5 West, in Springfield, Illinois (see Figure 1). The former Lakeside Power Generating Station and Dallman Power Generating Station are situated on the northwestern bank of Lake Springfield in Springfield, Illinois. The Lakeside Ash Pond is immediately north of Spaulding Dam at the northern end of Lake Springfield (see Figure 2). The Dallman Ash Pond is immediately northwest of the Lakeside Ash Pond. Placed into service prior to 1958, the Lakeside Ash Pond is primarily a diked embankment with an in situ soil liner. The Lakeside Ash Pond consists of four separate ponds (i.e., three lime softening ponds and a settling pond) totaling approximately 35.0 acres. The Lakeside Ash Pond ceased receiving ash in 2009. The Dallman Ash Pond was placed into service in approximately 1976 and is also a diked embankment with an in situ soil liner. The Dallman Ash Pond is approximately 34.5 acres in area.

3. POST-CLOSURE CARE PLAN

The Post-Closure Care Plan identifies the requirements for inspection and care of the impoundments and related components subsequent to installation and Agency approval of the final cover system. The Post-Closure Care Plan addresses the maintenance of the integrity and effectiveness of the final cover system which include making repairs to the system to correct effects of settlement, erosion, or other events, and preventing run-on and run-off from eroding the or damaging the final cover. In addition, the Plan addresses maintenance of the groundwater monitoring system and continued groundwater monitoring during post-closure care.

The requirements pursuant to Section 845.780 will be applicable for the entire post-closure care period (minimum of 30 years). At the end of the post-closure care period, the owner or operator must continue to conduct post-closure care until the groundwater monitoring data shows the concentrations are:

- Below the groundwater protection standards,
- Not increasing for those constituents over background, using the statistical procedures and performance standards in Section 845.640(f) and (g), provided that:
 - Concentrations have been reduced to the maximum extent feasible, and
 - Concentrations are protective of human health and the environment.

3.1 Inspection and Maintenance

The purpose of the inspections and maintenance is to ensure proper functioning of all items that remain after closure. The inspection of the final cover system and related structures must be

consistent with the requirements listed in Section 845.540 throughout the entire post-closure care period.

Pursuant to Section 845.540(a), the CCR surface impoundments and appurtenances shall be inspected by a qualified person at intervals not exceeding seven days and after each 25-year, 24-hour storm. Each inspection conducted pursuant to this Section shall be documented in an inspection report that describes the condition of the CCR surface impoundment, any repairs made to the CCR surface impoundment and date of the repair. These inspection reports shall become part of the facility's operating record.

The 7-day and 25-year, 24-hour storm inspections shall note any appearances of actual or potential structural weaknesses or create safety issues for the CCR surface impoundments. Such issues may include; erosion that creates rills, gullies or crevices six inches or deeper within the final protective layer or berms, other signs of deterioration including failed or eroded vegetation in excess of 100 square feet, or cracks in dikes or other containment devices; and any visible releases. In addition, at intervals not exceeding 7-days, inspect the discharge of all outlets of hydraulic structures that pass underneath the base of the CCR surface impoundment or through the dike of the CCR surface impoundment, for abnormal discoloration, flow or discharge of debris or sediment; and at intervals not exceeding 30-days, monitor all CCR surface impoundment instrumentation.

The annual inspection and reporting requirements are outlined under Section 845.540(b). Pursuant to Section 845.540(b), the annual inspection shall be completed by a qualified professional engineer to ensure that the design, construction, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection shall include: a review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections); a visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures; a visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation; the annual hazard potential classification certification, if applicable (see Section 845.440); the annual structural stability assessment certification, if applicable (see Section 845.450); the annual safety factor assessment certification, if applicable (see Section 845.460); and the inflow design flood control system plan certification (see Section 845.510(c)).

Inspection reports prepared by the qualified professional engineer to document the annual inspections must address: any changes in geometry of the impounding structure since the previous annual inspection; the location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection; any appearances of an actual or potential structural weakness of the CCR surface impoundment, in addition to any existing conditions that impact the safety of the CCR surface impoundment and appurtenant structures; and any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.

Pursuant to Section 845.540(b)(5), if a deficiency or release is identified during an inspection, the owner or operator must submit to the Illinois EPA documentation detailing proposed corrective measures and obtain any necessary permits from the Illinois EPA.

Inspections specific to the final cover system include: assess the condition and the need for repair of final cover, vegetation, fencing, monitoring devices, and drainage structures, if present and if applicable. These inspections will be completed while conducting the 7-day inspection defined above, or as otherwise warranted.

In general, the following guidelines will be followed when assessing the need for remedial actions:

- a) All rills, gullies, and crevices six inches or deeper in the final cover will be filled. Areas identified by the operator or during Illinois EPA inspections as particularly susceptible to erosion will be recontoured.
- b) All reworked surfaces, and areas with failed or eroded vegetation in excess of 100 square feet cumulatively, shall be revegetated in accordance with the approved closure plan.
- c) Brush, trees, or similar vegetation with tap roots growing in areas not so designated will be controlled.
- d) Holes and depressions created by settling will be filled and recontoured so as to prevent standing water.
- e) Eroded and scoured drainage channels will be repaired and lining material will be replaced if necessary.

Erosion and differential settlement may cause the need for cover repairs. The majority of settlement should be realized prior to the placement of the final cover system. Any areas where ponding occurs or erosion cuts appear will be promptly repaired in order to maintain the integrity of the final cover system as described in the closure plan. Earthen material for cover repairs will be made available from predetermined borrow areas proximate to the impoundments. Any area repaired herein will require re-establishment of vegetation. In addition, the final cover area will be mowed as necessary for the entire post-closure care period.

3.2 Groundwater Monitoring

Groundwater monitoring will be conducted pursuant to the existing Groundwater Monitoring Program and Statistical Procedures contained in Attachment 12 of the Closure Construction Permit Application and as defined in 35 IAC Part 845 Subpart F. Sampling and reporting will be conducted on a quarterly basis for a minimum period of 30 years after closure. After the initial five-year period, the sampling frequency may be reduced to a semiannual basis upon Illinois EPA approval pursuant to Section 845.650(b)(4). However, groundwater elevation monitoring will continue on a monthly basis. Groundwater monitoring records will be maintained at the operator's office or other designated location.

If during any sampling event it is discovered that a well has been damaged such that sample collection is prevented or impaired, it shall be repaired or replaced as soon as practical. All repairs will be recorded and placed in the facility record.

3.2.1 Recordkeeping

During post-closure care, records of field investigations, closure test results, inspection(s), and groundwater monitoring results will be maintained in the facility record.

3.2.2 Financial Assurance

CWLP is a unit of local government. Pursuant to Section 845.900(e), the Financial Assurance requirements of 35 IAC Part 845 Subpart I do not apply.

4. CONTACT INFORMATION

Pursuant to Section 845.780(d)(1)(B), listed below is the contact information for the facility during post-closure care.

Name: P.J. Becker

Address: 801 E. Monroe, 4th Floor
 Springfield, IL 62701

Phone No. (217) 757-8610 Ext. 1110

Email Address: pj.becker@cwlp.com

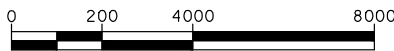
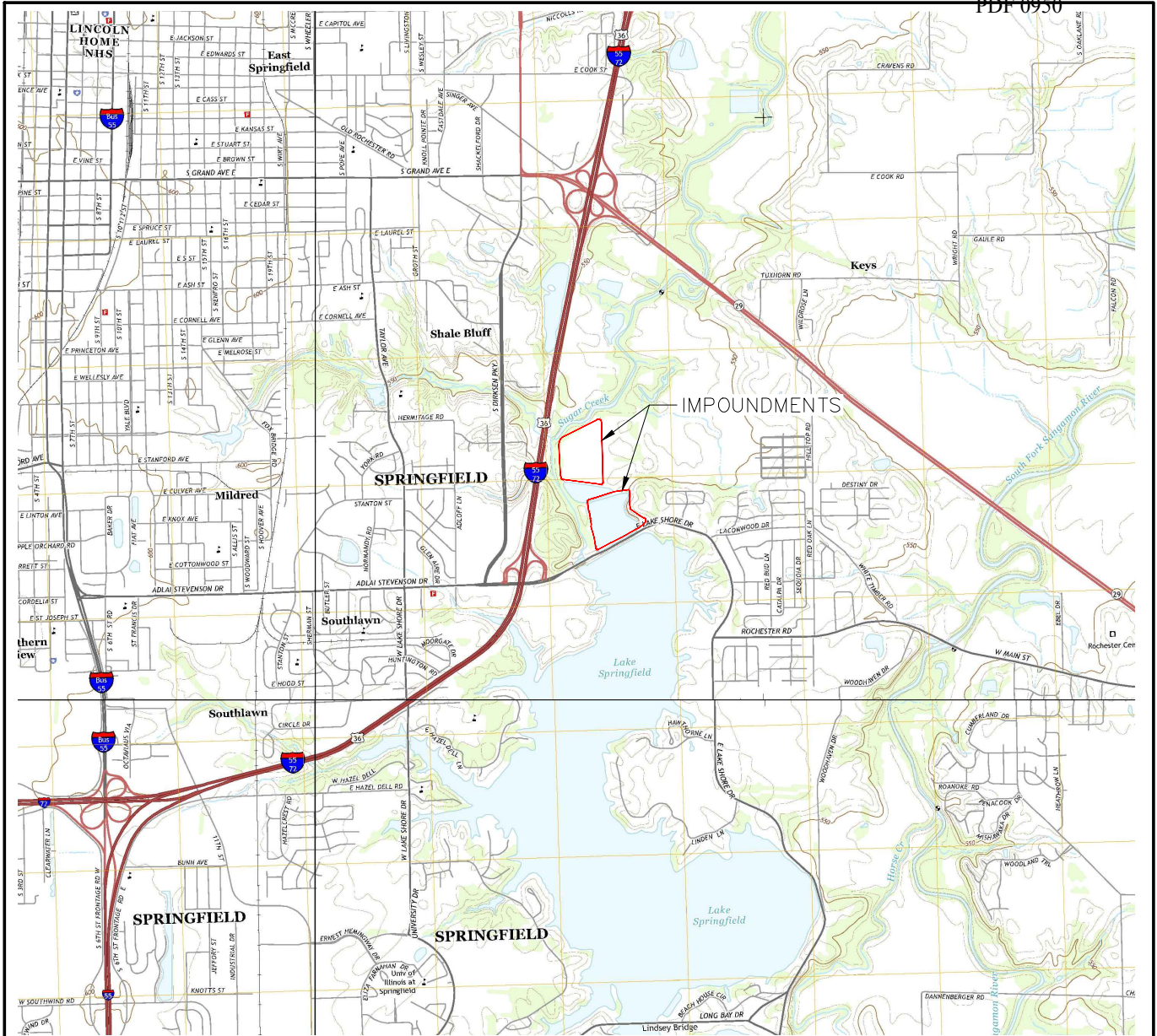
5. PLANNED PROPERTY USE

Subsequent to completion of the final cover system, there is no planned use of the impoundments. Therefore, the integrity of the final cover, liners, or any other component of the containment system, or the function of the monitoring systems will be maintained. If future use of the impoundments is considered, a demonstration must be made to the Illinois EPA prior to such use that no disturbance will occur resulting in an increase of potential threat to human health and the environment. Any demonstration must be certified by a qualified professional engineer.

6. STATEMENT


This Post-Closure Care Plan for Coal Combustion Residuals Surface Impoundments was completed for CWLP by Andrews Engineering, Inc. in accordance with the requirements under 35 IAC Part 845.780

FIGURES



SCALE: IN FEET

NOTE:
BACKGROUND IMAGE COURTESY OF
UNITED STATES GEOLOGICAL SURVEY.

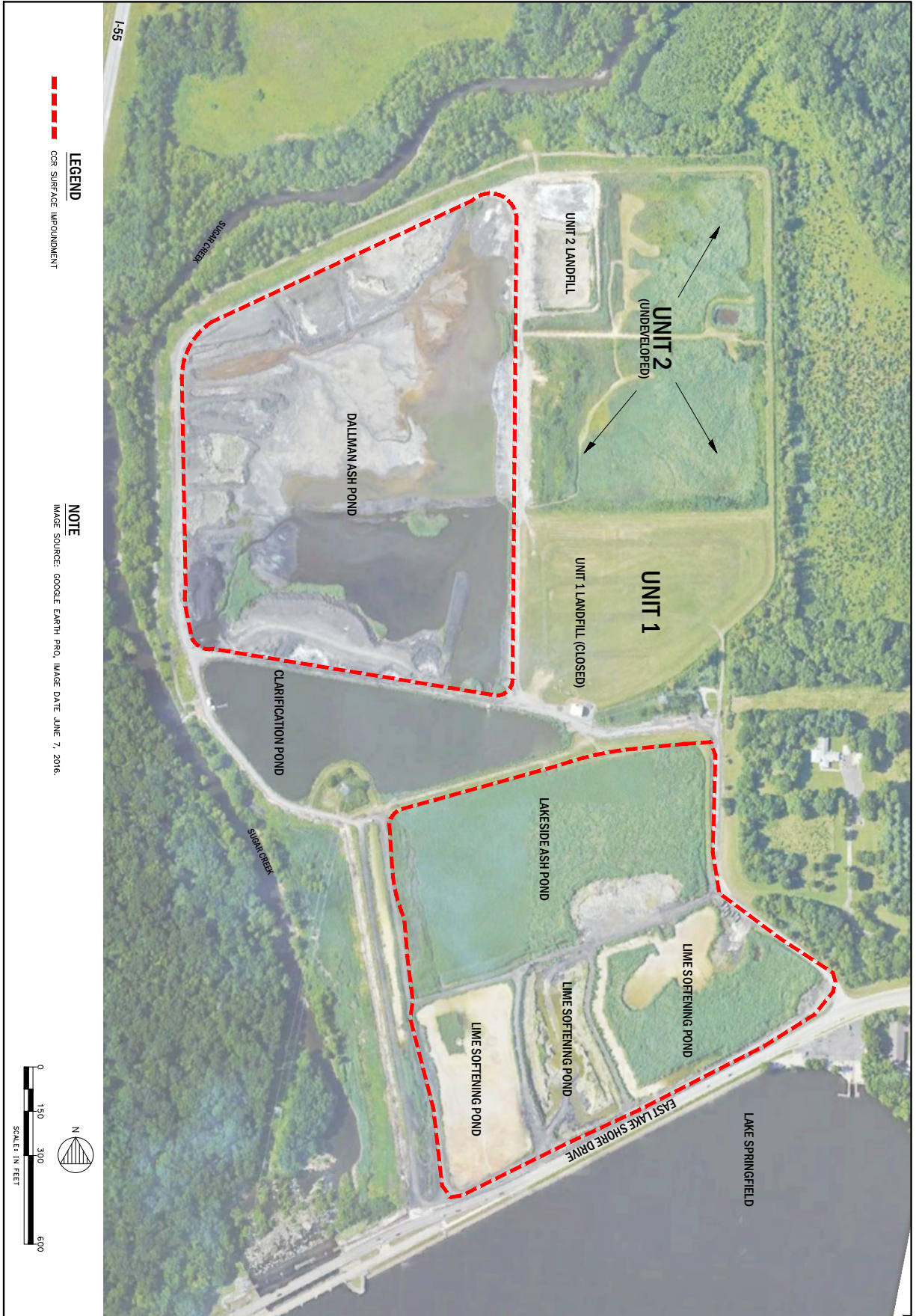


**ANDREWS
ENGINEERING**
3300 GINGER CREEK DRIVE
SPRINGFIELD, ILLINOIS 62711-7233
PH (217) 787-2334 WWW.ANDREWS-ENG.COM
PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MD
APPROVED BY: BJH DESIGNED BY: BJH DRAWN BY: MPN

SITE LOCATION

PLANS PREPARED FOR
CITY, WATER, LIGHT & POWER
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

| |
|--|
| DATE: JULY 2021 |
| PROJECT ID: 200387/0026 |
| SHEET NUMBER: FIGURE 1 |



LEGEND
 --- COR SURFACE IMPOUNDMENT

NOTE
 IMAGE SOURCE: GOOGLE EARTH PRO, IMAGE DATE: JUNE 7, 2016.

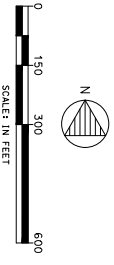


FIG. 2

SITE DETAILS
 PLANS PREPARED FOR
 CITY, WATER, LIGHT AND POWER
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS

ANDREWS ENGINEERING
 3300 GINGER CREEK DRIVE
 SPRINGFIELD, ILLINOIS 62711-7233
 PH (217) 787-2334 WWW.ANDREWS-ENG.COM
 PONTIAC, IL • LOMBARD, IL • INDIANAPOLIS, IN • WARRENTON, MD

| NO. | DATE | REVISION DESCRIPTION | BY |
|-----|------|----------------------|----|
| | | | |
| | | | |
| | | | |
| | | | |