

January 4, 2021

Xcel Energy, Inc.
Sherburne County Generating Station
13999 Industrial Blvd.
Becker, MN, 55308

Re: 2020 Annual Inspection of Bottom Ash Pond

The Bottom Ash Pond (BAP) inspection was conducted on November 19th, 2020 by Daniel J. Riggs, a professional engineer licensed in the State of Minnesota. Prior inspections were conducted in 1996, 2008, 2009, 2013 by the Minnesota Department of Natural Resources (DNR); in August 2009 by the EPA; annually from 2010 to 2014 by Qualified Professional Engineers in accordance with the DNR and Minnesota Pollution Control Agency (MPCA) inspection requirements; and annually since 2015 by a Qualified Professional Engineer in accordance with Coal Combustion Residual (CCR) Rules.

The following items were evaluated as a part of the section 257.83 inspection:

i) Any changes in geometry of the impounding structure since the previous inspection

Periodic topographic surveys, most recently in July 2018, have been conducted on the BAP since the final phase of construction was completed in 1982. During that time, no changes in pond geometry or embankment alignment have been observed.

ii) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection

There is no instrumentation for water level or dike stability, however water level elevation in the BAP is controlled by stop-logs as described in section iii.

iii) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection

The BAP discharges to the Recycle Basin over concrete stop-logs located in the discharge structure. These stop-logs are added or removed to raise or lower the impounded water level in the BAP. Over the last year the stop logs were raised from an elevation of 980 feet mean sea level (MSL) in October 2019, to 988 feet MSL in August 2020 to impound additional water. Following completion of Bottom Ash Pond No. 2 in August, stop logs were lowered from 988 feet MSL to 980 feet MSL at the time of the 2020 inspection.

The liner at the bottom of the BAP is at elevation 946 feet MSL, therefore the minimum and maximum impounded water depths are 34 and 42 feet, respectively.

The lowest elevation of deposited CCR in the BAP since the last inspection was approximately 962 feet MSL. The maximum elevation of deposited CCR in the BAP was at approximately 988 feet MSL during the inspection. The minimum and maximum CCR depths equate to 16 and 42 feet, respectively.

iv) The storage capacity of the impounding structure at the time of the inspection

The remaining capacity of the BAP from the surface of CCR during the 2020 inspection to an elevation of 998 feet MSL (top of clay liner) was approximately 350,000 Cubic Yards.

v) The approximate volume of the impounded water and CCR at the time of the inspection

There was approximately 50,000 Cubic Yards of impounded water and 600,000 Cubic Yards of CCR in the BAP at the time of the inspection.

vi) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures

The exterior of the BAP was inspected for structural weakness in the form of seepage by walking a traverse at the base, mid-slope, and top of the embankment. Signs of seepage would include moss or marshy vegetation at the toe-drain along the base, soft or saturated areas, patches of grass more lush than the surrounding area, or flowing "springs". There were no signs that seepage had previously or is presently occurring on the BAP.

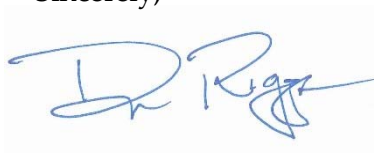
The discharge pipe corridor was inspected for signs of a leakage, such as saturated areas or sinkholes. No signs of leakage were observed along the pipe corridor between the BAP and the Recycle Basin.

The water level in the BAP is controlled by concrete stop-logs in the discharge. All changes in water level are attributed to the addition of stop-logs.

vii) Any other changes(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection

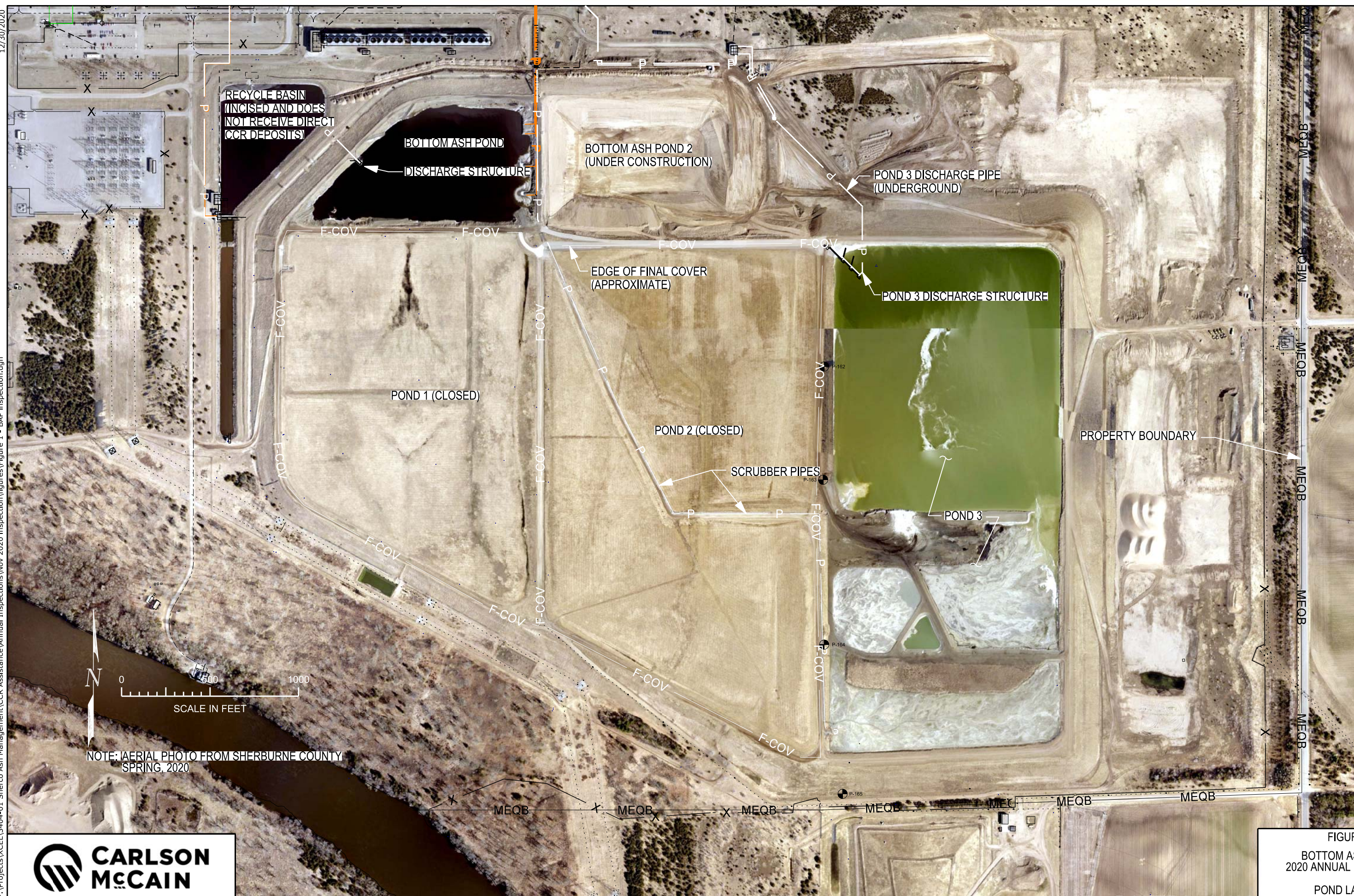
There have not been any changes that have affected the stability of the pond. I have reviewed the CCR Unit Design and Construction information and have observed no deviations from those documents.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Riggs", with a stylized flourish at the end.

Daniel J. Riggs, PE
License No. 49559
Senior Engineer
Carlson McCain, Inc.

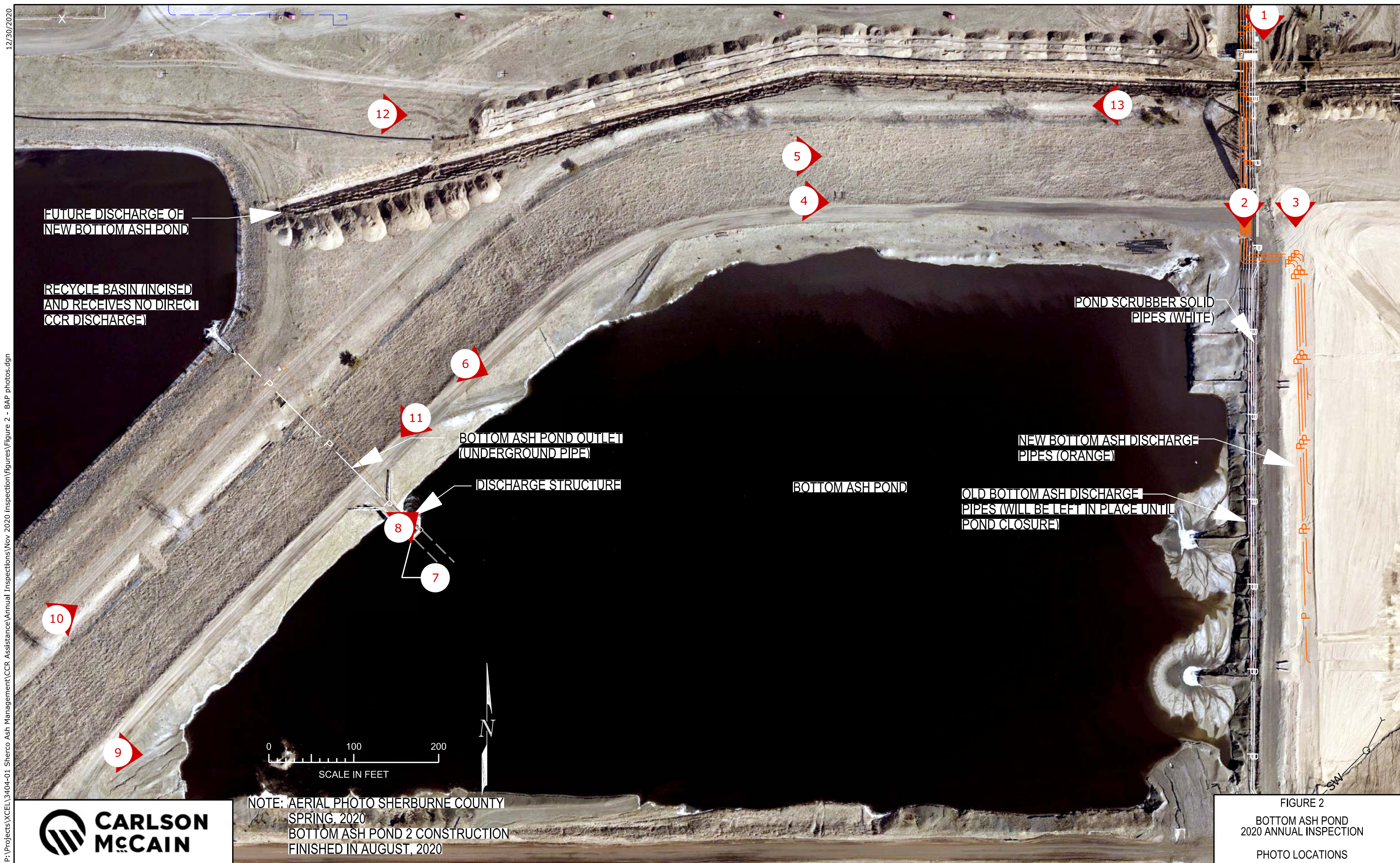
12/30/2020
P:\Projects\XCEL\3404-01_Sherco Ash Management\CCR Assistance\Annual Inspections\Nov 2020 Inspection\figures\Figure 1 - BAP Inspection.dgn



NOTE: AERIAL PHOTO FROM SHERBURNE COUNTY
SPRING, 2020



FIGURE 1
BOTTOM ASH POND
2020 ANNUAL INSPECTION
POND LAYOUT



Bottom Ash Pond Annual Inspection - 2020



Photo 1	Bottom ash and scrubber pipes, looking south.
11/19/2020	



Photo 2	Interior of east embankment, looking south. Bottom ash pipe routed to new pond (Bottom Ash Pond 2).
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 3	Exterior of east embankment (also shown: New Bottom Ash Pond),
11/19/2020	looking south.



Photo 4	Top of north embankment, looking east.
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 5	Exterior of north embankment, looking east.
11/19/2020	



Photo 6	Interior of pond, looking southeast.
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 7	Interior of discharge structure.
11/19/2020	



Photo 8	Pond interior, looking northeast.
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 9	Interior of south embankment, looking east.
11/19/2020	



Photo 10	Mid-slope exterior of northwest embankment with toe drain, looking northeast.
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 11	Exterior of northwest embankment, looking southwest.
11/19/2020	



Photo 12	Bottom of north embankment, looking east.
11/19/2020	

Bottom Ash Pond Annual Inspection - 2020



Photo 13	Toe drain of north slope, looking west.
11/19/2020	