EMERGENCY ACTION PLAN

Chesterfield Power Station
Upper and Lower Ash Pond and Low Volume Wastewater System Dams
Department of Conservation and Recreation
Inventory No. 041045, 041031, 041099, 041103, 041068
Chesterfield, Virginia

Prepared for:

Dominion Energy®

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1.0 BASIC INFORMATION

Table 1: Chesterfield Power Station Unit Hazard Potential Classification

Unit	Inventory Number	Hazard Potential Classification		Acreage
		CCR Regulations	Virginia Dam Safety	
Upper Ash Pond	041045	Significant	Significant	112
Lower Ash Pond	041031	Significant	Significant	101
Metals Pond	041099	-	Significant	6
EQ Basin	041103	-	Significant	7
Discharge Basin	041068	-	Low	5

Owner: Virginia Electric and Power Company, Attn: Shane Young
5000 Dominion Boulevard Glen Allen, VA 23060
804-229-6920 (Mobile)

Dam Operator: Matthew Woodzell – Manager Power Generation
Chesterfield Power Station – 500 Coxendale Road, Chester, VA 23836
804-796-6119 (Business) 804-912-4185 (Mobile)

Alternate Operator: Kevin Bishoff – Project Manager
Chesterfield Power Station – 500 Coxendale Road, Chester, VA 23836
540-259-0384 (Mobile)

Alternate Operator: Dallas Wood – Environmental Compliance Coordinator
Chesterfield Power Station – 500 Coxendale Road, Chester, VA 23836
571-208-8423 (Mobile)

Alternate Operator: Troy Breathwaite – Manager Environmental
Chesterfield Power Station – 500 Coxendale Road, Chester, VA 23836
804-441-4811 (Mobile)

EAP Coordinator: Joshua Harris – Sr. Environmental Compliance Coordinator
Chesterfield Power Station – 500 Coxendale Road, Chester, VA 23836
804-971-0288 (Mobile)

Dam Engineer: Michael Winters, P.E.
600 Canal Place, Richmond, VA 23219
804-347-9451 (Mobile)

Chesterfield County Fire and EMS: Edward Senter, Jr., Fire Chief
P.O. Box 40, Chesterfield, VA 23832
804-748-1251 (Mobile) or local emergency #911

Chesterfield Emergency Management Coordinator: Jessica Robison
10501 Trade Court, North Chesterfield, VA 23236
804-748-1236 (Business) 814-934-9708 (Mobile)

2.0 EMERGENCY ACTION PLAN OVERVIEW

2.1 Emergency Stage Definitions

Three emergency stages, ranked by severity, have been established for the Upper and Lower Ash Pond Dams and the Low Volume Wastewater System (LVWWS) dams. Emergency stage definitions for the Discharge Basin are provided in the basin's Emergency Preparedness Plan (EPP), included as Appendix D. For the stages outlined below, the conditions and responsibilities of Stage 2 include those of Stage 1, and the conditions and responsibilities of Stage 3 include those of both Stage 1 and Stage 2.

Stage 1: Non-Emergency – Failure is unlikely and storm development or operational malfunction is slow in advancing to a potential emergency. This stage indicates a situation is developing such that the dam is not in danger of failing, but if it continues, failure may be possible.

Stage 2: Potential Failure – Storm development or operational malfunction that could result in failure of the dam is quickly accelerating. This stage indicates a situation is developing that could result in a dam failure. Declaration of Stage 2 represents a safety emergency and, for the Upper and Lower Ash Ponds, would be considered an activation of the EAP under the CCR Rule.

Stage 3: Imminent Failure – Storm development or operational malfunction has reached a point where failure of the dam has started or is imminent. This stage indicates dam failure is expected or occurring and may result in flooding that could threaten life and/or property downstream of the dam. Declaration of Stage 3 represents a safety emergency and, for the Upper and Lower Ash Ponds, would be considered an activation of the EAP under the CCR Rule.

The Dam Owner, Dam Operator, EAP Coordinator, or Assignee may use Table 2 to assess weather and operational conditions at the dam and determine the appropriate actions for notifying emergency personnel during potential and actual emergencies.

Normal methods for detecting potential emergency situations at the dam consist of surveillance monitoring and observing instrument readings. For conditions beyond the normal range of operations, contact the Chesterfield County Emergency Management Coordinator (EMC) for assistance with evaluation of conditions.

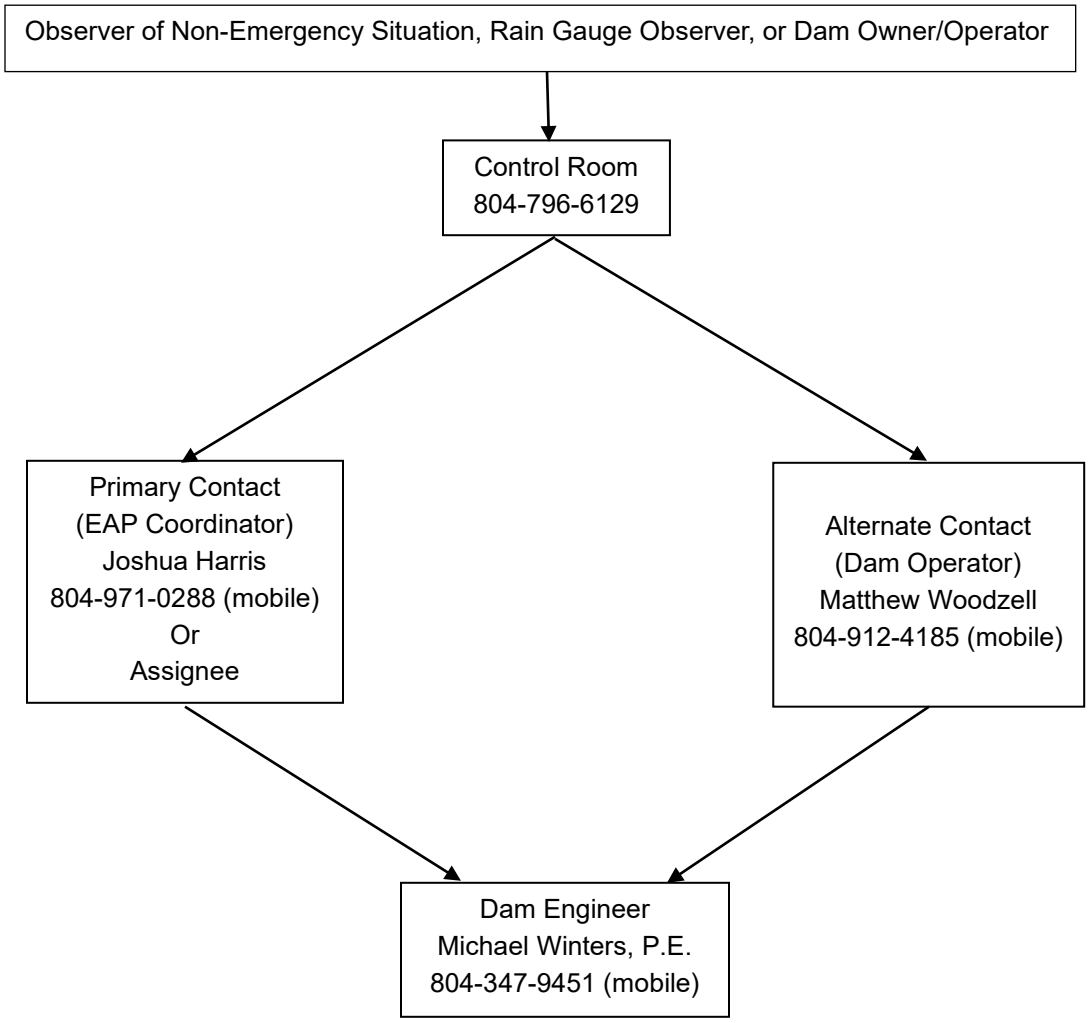
Table 2: Emergency Stage Table

Step 1: Detection and Evaluation	Event Detection: See Section 6		
Step 2: Stage Level	**Stage 1**	**Stage 2**	**Stage 3**
	Non-Emergency • Slowly Developing Situation • See Definition Above	Potential Emergency • Quickly Developing Situation • See Definition Above	Urgent Emergency • Dam Failure is Imminent or In Progress • See Definition Above
Step 3: Notification and Communication	Notification List, See Section 3.1	Notification List, See Section 3.2	Notification List, See Section 3.3
Step 4: Expected Action	• Inspect Dam, Spillway, Staff Gauge, and Rain Gauge every six hours • Monitor and Listen to Weather Forecasts	• Inspect Dam, Spillway, Staff Gauge, and Rain Gauge every two hours • Notify Emergency Responders	• Continuous Inspection of Dam, Spillway, Staff Gauge, and Rain Gauge • Continuous Contact with Emergency Responders
Step 5: Termination and Follow Up	Termination of Monitoring Conditions at the Dam and Proceed to Evaluate Damages and Plans for Repair		

3.0 NOTIFICATION

3.1 Stage 1 Notification

The following flow chart is to be utilized upon determination of Stage 1 Conditions at each dam:



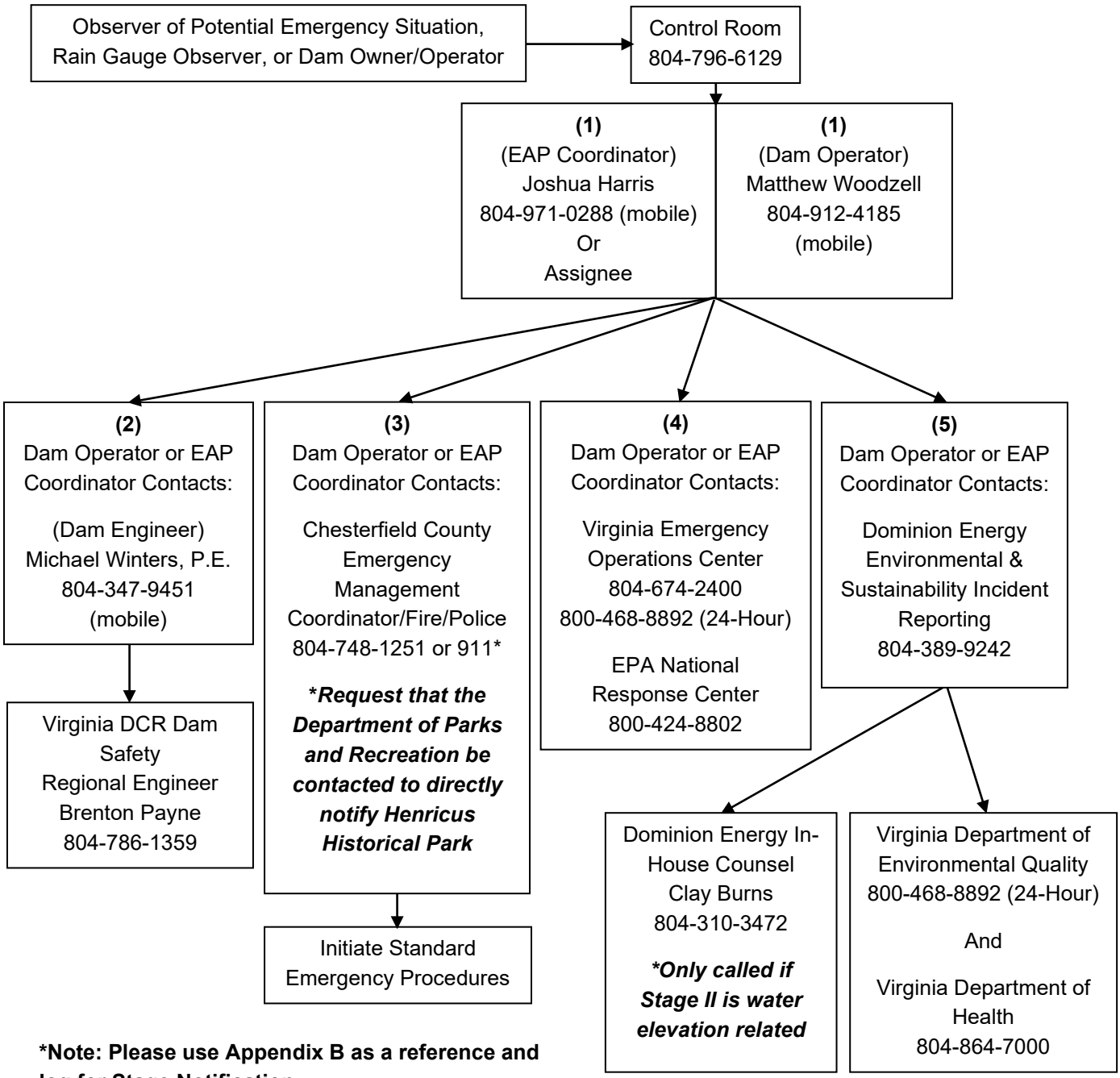
***Note: Please use Appendix B as a reference and log for Stage Notification.**

Message from the dam operator or EAP Coordinator to Dam Engineer:

I am at [or I have been in contact with the observer at] the Chesterfield Power Station, and conditions at the [insert dam name here] warrant observation as recommended in the Emergency Action Plan. We are currently at Stage 1. If conditions change, we may move to Stage 2 and perform more frequent evaluations. Otherwise, we will visit and make observations every six hours.

3.2 Stage 2 Notification

The following flow chart is to be utilized upon determination of Stage 2 Conditions at each dam:



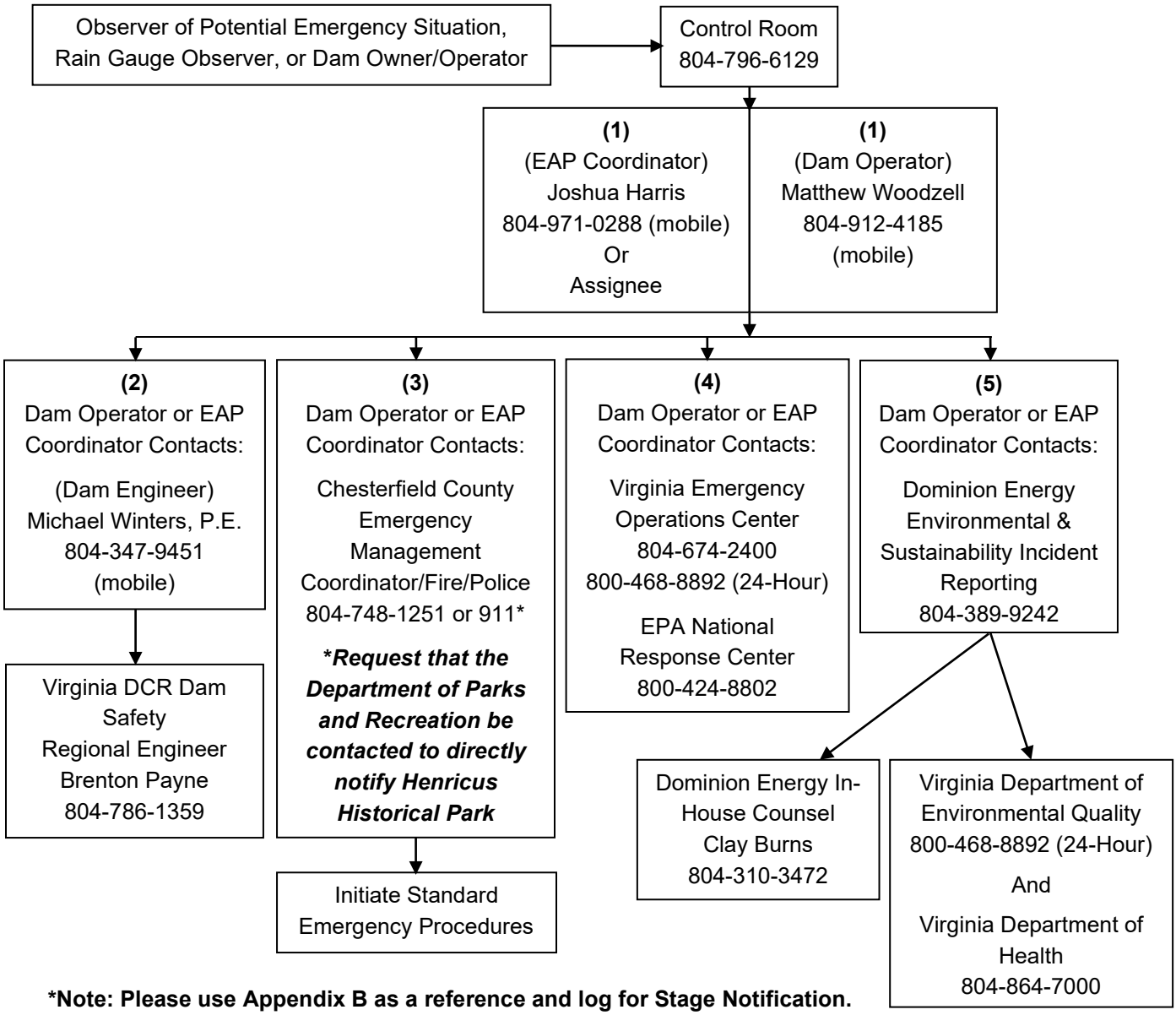
***Note: Please use Appendix B as a reference and log for Stage Notification.**

Message from the dam operator to the EAP Coordinator:

I am at [or I have been in contact with the observer at] the Chesterfield Power Station, and conditions at the [insert dam name here] have reached the threshold established in the Emergency Action Plan at which to move to the Stage 2 Emergency Level. Please prepare your personnel in case of an emergency and continue to initiate your standard operating procedures. Someone will be observing the dam every two hours.

3.3 Stage 3 Notification

The following flow chart is to be utilized upon determination of Stage 3 Conditions at each dam:



***Note: Please use Appendix B as a reference and log for Stage Notification.**

Message from the Dam Operator to the EAP Coordinator:

I am at [or I have been in contact with the observer at] the Chesterfield Power Station, and conditions at the [insert dam name here] have reached the threshold established in the Emergency Action Plan to move to the Stage 3 Emergency Level. Please proceed with the Standard Emergency Procedures. Someone will remain at the dam to monitor continuously until the dam breaks or the water level recedes to safe levels and the Emergency Services Coordinator directs us to terminate our responsibilities.

Note: Standard Emergency Procedures (SEPs) shall include notification of the evacuation team, contacting the National Weather Service (NWS) for rainfall projections, and contacting the State Department of Emergency Management.

4.0 STATEMENT OF PURPOSE

The Upper and Lower Ash Ponds and LVWWS basins are designed and operated pursuant to Virginia Department of Conservation and Recreation (DCR) Dam Safety Regulations and generally accepted engineering practices. Additionally, the Upper and Lower Ash Ponds are operated pursuant to the United States Environmental Protection Agency's "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments" (CCR Rule, 40 CFR §257 Subpart D). The purpose of this Emergency Action Plan (EAP) is to provide critical information and response procedures in the event of an emergency situation at the Chesterfield Power Station Upper and Lower Ash Ponds and LVWWS basins, owned and operated by the Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy). The plan addresses the following:

- Delineation of inundation areas downstream of each dam;
- Procedures for determining when to initiate various emergency stage levels;
- Provisions for notification of emergency responders and owners of potentially affected downstream residences and structures;
- Emergency preparedness and exercises; and
- Documentation of evacuation routes.

This plan is intended to meet the requirements of DCR's Impounding Structure Regulations and the CCR Rule. Under both programs, the Upper and Lower Ash Pond Dams are classified as "Significant Hazard" due to the potential downstream impacts of a failure based on 4VAC50-20-40 and 40 CFR §257.73(a)(2). Under the DCR Impounding Structure Regulations, the Metals Treatment Pond and Equalization (EQ) Basin are classified as "Significant Hazard," and the Discharge Basin is classified as "Low Hazard." In accordance with the requirements for low hazard impounding structures the Discharge Basin has an approved EPP, which is provided in Appendix D for ease of use by the dam operator.

5.0 PROJECT DESCRIPTION

5.1 General Vicinity

The Chesterfield Power Station is located in Chesterfield County at 500 Coxendale Road, east of Interstate 95 and overlooking the James River, as shown on Figure 1 in Appendix E. The Upper and Lower Ash Ponds are located adjacent to the Old Channel of the James River, with Henricus Historical Park to the East, and Aiken Swamp to the north.

While the Upper and Lower Ash Ponds were previously used as long-term storage for CCR from station operations, Dominion Energy has initiated closure processes for both ponds. CCR from current station operations is stored in the onsite CCR landfill.

5.2 General Description of Dams

5.2.1 Upper Ash Pond Dam

The Chesterfield Power Station Upper Ash Pond impounds CCR from past operations at the Chesterfield Power Station and is regulated under the CCR Rule and DCR Dam Safety (Inventory Number 041045). The Upper Ash Pond Dam is an earthen embankment with perimeter channels that convey stormwater runoff to a stormwater sediment pond situated at the east end of the Pond. The stormwater sediment pond discharges through a riser, which is considered to be the principal spillway for the dam, to the Old Channel of the James River.

The Upper Ash Pond has an emergency spillway consisting of two 72-inch steel pipes designed to safely pass a 90 percent of the six-hour Probable Maximum Precipitation (PMP) event, as required by DCR. The emergency spillway is also equipped with two 72-inch-by-36-inch HG561 slide gates, one at each 72-inch steel pipe, to regulate the water outflow. The slide gates are to be fully open in anticipation of or during a large storm event. Large storm events include storms larger than 1,000-year, 24-hour event (13.1 inches in 24 hours). Table 3 provides details of the dam.

Table 3: Upper Ash Pond Berm Details

Year Constructed	1985
Dam Height	35 feet
Crest Length and Width	9,300 feet X 20 feet
Top of Dam Elevation	40
Normal Pool Elevation	30.5
Principal Spillway Elevation	27
Emergency Spillway Elevation	32.6
Principal Spillway Capacity	66 CFS
Emergency Spillway Capacity	639 CFS
Normal Reservoir Capacity	25.8 Ac-ft at EL 31
Maximum Reservoir Capacity	71.3 Ac-ft at EL 39
Current Spillway Design Flood Capacity (SDF)	90 percent of the six-hour PMP event

5.2.2 Lower Ash Pond Dam

The Chesterfield Power Station Lower Ash Pond impounds CCR from past operations at the Chesterfield Power Station, regulated under the CCR Rule, and under DCR Inventory Number 041031. The Lower Ash Pond is made of earthen embankments and impounds both ash and water. Table 4 provides details of the dam.

Table 4: Lower Ash Pond Berm Details

Year Constructed	1964
Dam Height	19 feet
Crest Length and Width	7,980 feet X 10 feet
Top of Dam Elevation	20.0
Normal Pool Elevation	15.8
Principal Spillway Elevation	N/A
Emergency Spillway Crest Elevation	18.0
Emergency Spillway Capacity	52.7 CFS
Normal Reservoir Capacity	5.37 Ac-ft at EL 7.2
Maximum Reservoir Capacity	299.52 Ac-ft at EL 18.5
Current Spillway Design Flood Capacity (SDF)	90 percent of the six-hour PMP event

5.2.3 Metals Pond

The Metals Pond is an earthen embankment constructed in late 1970 with a maximum pool surface area of approximately six acres. The Metals Pond was previously used for treatment of metal cleaning waste generated from station equipment such as boilers, electrostatic precipitators, and heat exchangers, with treated effluent being discharged through internal Virginia Pollutant Discharge Elimination System (VPDES) Outfall 303 into the Equalization Basin. The Metals Pond is now undergoing closure and conversion to a contact stormwater pond.

The maximum height of the Metals Pond Embankment is 8.0 feet, with the crest elevation ranging between EL 36.0 feet and EL 37.0 feet above mean sea level (AMSL). The emergency spillway, constructed in 2017, is a six-foot-diameter, precast concrete riser with a crest elevation of EL 34.5 feet AMSL. Discharge from the emergency spillway is routed to the Thermal Channel.

5.2.4 EQ Basin

The EQ Basin acts as the collection point of multiple streams of station wastewater. The basin is located southwest of the station, across Coxendale Road. Construction of the basin was completed in early 2018. The basin has an area of approximately 10 acres and a maximum embankment height of approximately 20 feet, with the crest elevation ranging between EL 45 feet and EL 68 feet AMSL. The EQ basin has a liner system consisting of a 60-mil high-density polyethylene (HDPE) liner atop a geonet composite for conveying groundwater. Water from the EQ Basin is routed to the Discharge Basin.

5.2.5 Discharge Basin

The Discharge Basin is located to the south of, and receives inflow from, the EQ basin. Construction of the two bay, earthen basin was completed in 2018. Both bays are underlain by a 60-mil HDPE liner atop a geonet composite. Water from the basin is discharged through VPDES Outfall 301. The EPP for the Discharge Basin is included as Appendix D.

6.0 EMERGENCY DETECTION, EVALUATION, AND CLASSIFICATION

The dam owner and/or operator is responsible for operation and maintenance of the dams. The dam operator and the field observer are responsible for monitoring conditions at the dams, spillway, and staff gauge and making the appropriate notifications when emergency stage conditions are activated.

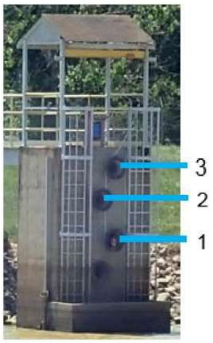
The dam owner/operator will initiate this EAP based on the rainfall depth in a 24-hour period, or if conditions at the dams indicate water levels in the impoundment will rise to the point where there is flow through the principal or emergency spillways. Embankment erosion, appurtenant structure malfunction, or any of the other conditions described in this section may also dictate initiation of the emergency action. While it is the dam owner's responsibility to initiate this process, the Local Emergency Management Coordinator may contact the dam owner to inform the team that an event is imminent, and team members would initiate their duties as outlined in this EAP.

Depth of flow through the principal and emergency spillways is the best indication of flood conditions and should be used as an indicator of the potential impacts downstream. In the absence of actual flow depth data through the spillways, measured rainfall depths in inches monitored in the contributing watershed may be used to determine the emergency level. When safe to do so, visual observations should be made by a team member so that accurate and up to date information can be provided to the EAP Coordinator.

6.1 Reservoir Pool Level

Reservoir pool level, associated with the flow depth in the emergency spillway, is the prime indicator of flooding conditions at the station dams.

Table 5: Reservoir Pool Level Summary

Pond	Stage Level	Pool Level Elevation (feet)
 Upper Ash Pond	Stage 1	Only three orifice holes are visible in the riser structure. The water level is approximately one foot below the Emergency Spillway pipe and rising.
	Stage 2	Only the top orifice hole is visible in the riser structure. At this elevation, the water level has reached approximately the top of the Emergency Spillway pipe, causing the emergency spillway to discharge, and is rising at a slow pace.
	Stage 3	Water is rapidly rising to cover the last orifice hole. At this moment, the water level has completely submerged the Emergency Spillway pipe and is rising at a fast pace.

Pond	Stage Level	Pool Level Elevation (feet)
 Lower Ash Pond	Stage 1	Reservoir pool level is at elevation 8.5 feet. This is one foot below the top of the HDPE pipe. A yellow line has been painted on the outlet structure to help observers easily determine when the Stage 1 elevation has been reached.
	Stage 2	Reservoir pool level is at elevation 10.5 feet. This is one foot above the top of the HDPE pipe.
	Stage 3	Reservoir pool level is at elevation 18.5 feet, or the flow depth in the emergency spillway is 0.5 feet (emergency spillway is activated). This would occur when the pool level would be one-half-foot below the dam crest and would indicate the emergency spillway is active and overtopping of the dam embankment could soon occur.
Metals Pond	Stage 1	Reservoir pool level is at elevation 34.0 feet. This is 0.5 foot below the emergency spillway crest.
	Stage 2	Reservoir pool level is at elevation 35.0 feet. This is 0.5 foot over the emergency spillway and the spillway is discharging.
	Stage 3	The reservoir pool level is at elevation 35.5 feet. This is one foot below the lowest dam crest elevation.
EQ Basin	Stage 1	Reservoir pool level is at elevation 43.5 feet. This is one foot below the emergency spillway crest.
	Stage 2	Reservoir pool level is at elevation 44.0 feet. This is one foot below the dam crest.
	Stage 3	The reservoir pool level is at elevation 44.5 feet. This is 0.5 foot below the dam crest.
Pond	Stage Level	Pool Level Elevation (feet).
Discharge Basin	Stage 1	N/A – See rainfall depths.
	Stage 2	Reservoir pool level is at elevation 32.50 feet. This is between the second and third outfall pipes.
	Stage 3	The reservoir pool level is at elevation 34.0 feet. This is at the invert of the third outfall pipe.

6.2 Rainfall Depths

Rainfall depths for various storm durations are another indicator of potential flooding condition. Rainfall depth will be measured using an onsite rain gauge or projected using the National Weather Service (NWS) or other reputable weather source. The rainfall triggers for the Upper and Lower Ash Ponds are summarized below.

Initiate a Stage 1 condition for the following rainfall depth:
8.45 inches in 24 hours (100-Year Event).

Initiate a Stage 2 condition for the following rainfall depth:
13.1 inches in 24 hours (1,000-Year Event).

Initiate a Stage 3 condition for the following rainfall depth:
27.3 inches in six hours (90 percent PMP Event).

In addition to the automatic activations resulting from the above storms, the dam owner/operator or EAP Coordinator may initiate this EAP based on the issuance of a flood watch or warning in the area if deemed necessary.

6.3 Observation Frequency

Dam, spillway, and staff gauge observations shall occur at frequencies determined by the Emergency Stage condition:

- Stage 1 conditions – observations shall occur every six hours
- Stage 2 conditions – observations shall occur every two hours
- Stage 3 conditions – continuous observation

An observer can be any person who has the ability to monitor and report observations of the dams at the time of a stage triggering event. Observers should use caution and be aware of the potential for flooded roads along the route to the dams. Monitoring and surveillance of conditions at the dams will continue under emergency conditions as long as safety is not in question. An observation log is included in Appendix B.

Note: In the event conditions are considered unsafe (i.e., wind speed greater than 40 mph, lightning, tornado etc.), conditions will be documented, and dam observations will be postponed until conditions improve.

6.4 Public Roads Downstream of the Dams

There are no public roads downstream of the dams that would be impacted as a result of an embankment failure.

6.4.1 Upper Ash Pond Dam

Chesterfield County's Henricus Historical Park is located to the east of the Upper Ash Pond. Access to the park is via Henricus Park Road, a Chesterfield County road, which is north of the Upper Ash Pond. A

park walking trail is south of the Upper Ash Pond. The Chesterfield County EMC will directly coordinate with the park to limit access to the road and walking trail as needed.

6.4.2 Lower Ash Pond Dam

Chesterfield County's Henricus Historical Park is located to the east of the Lower Ash Pond. Access to the park is via Henricus Park Road, a Chesterfield County road, which is east of the Lower Ash Pond. The Chesterfield County EMC will directly coordinate with the park to limit access to the road and trails as needed.

6.5 Additional Emergency Conditions

The following table describes additional events that could occur independent of a precipitation event or reservoir pool levels. If any of these conditions are observed, Dominion's Power Generation Engineering group, applicable Dominion department, or qualified consultant should be contacted for further discussion, observation, and/or technical direction.

Table 6: Emergency Conditions

Event	Situation
Emergency Spillway and Channel	Visual displacement or movement of the spillway channel with no flow
	Spillway is flowing and erosion/head cutting is observed
Sinkholes	Observation of new sinkhole on embankment
	Rapidly enlarging sinkhole
Embankment Cracking	New cracks in embankment greater than one-quarter inch wide without seepage
	Cracks in embankment with seepage
	Cracks in embankment with rapidly increasing seepage
Embankment Movement	Visual movement of the embankment slope
	Sudden or rapidly progressing slides of the slopes
Vortex in Pond	Whirlpool with discharge downstream
Earthquake	Measurable earthquake with a magnitude of 3.5 within 50 miles of the dam
	Earthquake resulting in visible damage to the dam
	Earthquake resulting in potential uncontrolled release of water from the dam
Security Threat, Sabotage, and Vandalism	Verified bomb threat that, if carried out, could result in damage to the dam
	Detonated bomb that has resulted in damages to the dam or its appurtenances
	Damage to the dam or appurtenances with no impacts to the functioning of the dam
	Damage to the dam or appurtenances that has resulted in seepage flow
	Damage to the dam or appurtenances that has resulted in potential uncontrolled water release

Following a stage activation due to a measurable earthquake, overtopping of the dam, evacuation of inundation areas, or other serious structural problems resulting in a triggering of stage conditions; the dam must be inspected by a professional engineer knowledgeable of the dam site. This inspection may be postponed due to unsafe conditions or lack of accessibility to the site.

6.6 De-Escalation and Termination of Stage Conditions

In the event of an activation due to rainfall or reservoir pool elevation, stage conditions can be terminated after heavy rains have ended, the water levels in the impoundments are below the Stage 1 reservoir pool levels for each dam, the water level is receding, and other emergency conditions have been evaluated by Dominion personnel and determined to not present a hazard to the dam going forward.

In the event of an activation due to structural concerns, as discussed in Section 6.5, stage conditions may be terminated prior to the professional engineer inspection of the dam at the direction of Dominion's Power Generation Engineering group; however, the dam must still be inspected by a professional engineer knowledgeable of the dam site shortly after termination of stage conditions. Documentation of the dam inspection will be added to the activation record.

Termination of stage conditions occurs when all entities notified of the emergency condition have been communicated with and informed of current non-emergency conditions.

Stage conditions can be stepped down when the following conditions are applicable:

Stage 3 to Stage 2

- After heavy rains have ended, the water levels in the impoundments are below the Stage 3 reservoir pool levels for each dam, and the water level is receding.
- Other emergency conditions at the dam have stabilized and dam failure is no longer imminent.

Stage 2 to Stage 1

- After heavy rains have ended, the water levels in the impoundments are below the Stage 2 reservoir pool levels for each dam, and the water level is receding.
- Other emergency conditions at the dam have stabilized and current conditions are unlikely to threaten the dam.

7.0 RESPONSIBILITY UNDER THE EAP

This section is intended to clearly outline the responsibilities of parties involved in all EAP procedures, including notification, surveillance, classification, evacuation, and termination.

7.1 Dam Owner/Operator Responsibilities

- The Dam Owner/Operator IS RESPONSIBLE for notifying the local Emergency Management Coordinator of any problem or potential problem at the dam site.
- The Dam Owner/Operator/EAP Coordinator WILL DETERMINE when Stage 1 conditions are met at the dam and WILL INITIATE dam surveillance accordingly.
- The Dam Owner/Operator/EAP Coordinator WILL DETERMINE when Stage 2 conditions are met at the dam.
- The Dam Owner/Operator/EAP Coordinator WILL DETERMINE when Stage 3 conditions are met at the dam.

- The Dam Owner/Operator WILL BE RESPONSIBLE for operating pumps as needed for the dam to function effectively.
- The Dam Owner/Operator WILL BE RESPONSIBLE for coordinating with local emergency response personnel to restrict traffic access to Coxendale Road under Stage 2 and Stage 3 conditions to ensure public safety.
- The Dam Owner/Operator WILL BE RESPONSIBLE for notifying local emergency response personnel of changes in emergency conditions including stage escalation and de-escalation and termination of the EAP under non-emergency conditions.

7.2 Responsibility for Notification

- The observer of the emergency situation WILL NOTIFY the Dam Owner/Operator/EAP Coordinator before beginning dam surveillance under Stage 1 conditions.
- The Dam Owner/Operator/EAP Coordinator WILL NOTIFY the 24-hour dispatch center and the local Emergency Management Coordinator when Stage 2 conditions are met in order to alert them to perform actions required for Stage 2 conditions and to review actions that may be required for the safety and protection of people and property and to mobilize their evacuation team. The Dam Owner/Operator WILL NOTIFY the Regional Dam Safety Engineer and Dominion Power Generation Engineering that Stage 2 conditions have been implemented.
- The Dam Owner/Operator/EAP Coordinator WILL NOTIFY the 24-hour dispatch center and the local Emergency Management Coordinator to initiate warning/evacuation of residents when Stage 3 conditions or imminent dam failure are probable. The Dam Owner/Operator WILL NOTIFY the Regional Dam Safety Engineer and Dominion Power Generation Engineering that Stage 3 conditions have been implemented.
- The Dam Owner/Operator/EAP Coordinator WILL NOTIFY local emergency response personnel of changes in emergency conditions, including stage escalation and de-escalation and termination of the EAP under non-emergency conditions.

Once stage conditions have been activated, the Dam Owner/Operator/EAP Coordinator will continue to provide the EAP Coordinator with information concerning water level rise, erosion in the emergency spillway, and/or dam overtopping, as provided by the dam/spillway/staff gauge observer. It is particularly important for the EAP Coordinator to know when a breach is occurring to evacuate their rescue personnel. The staff gauge observer will remain at the dam until released from duty by the EAP Coordinator or Assignee.

7.3 Responsibility for Evacuation

- The Chesterfield County Emergency Management Coordinator and Emergency Operations Center WILL NOTIFY Henricus Historical Park of the potential emergency or evacuation prior to or in the event Stage 2 and/or Stage 3 conditions are met. The Emergency Management Coordinator and Emergency Operations Center should utilize their Standard Emergency Procedures to implement in the event that dam failure is possible or occurring. These Standard Emergency Procedures should include evacuation plans. The Emergency Management Coordinator and Emergency Operations Center WILL CONTACT authorized personnel to set up barricades to close Henricus Park Road, as described in Section 6.4 in the event that Stage 3 conditions are met.

- Once the Stage 3 condition has been met, the dam owner/operator/EAP Coordinator will continue to provide the EAP Coordinator with information concerning water level rise, erosion in the emergency spillway, and/or dam overtopping, as provided by the dam/spillway observer. It is particularly important for the EAP Coordinator to know when a breach is occurring to evacuate station personnel. If it's safe, the Station observer will remain at the dam until released from duty by the EAP Coordinator, or the observer will remotely use other monitoring devices to monitor the dam.

7.4 Responsibility for Termination

Stage conditions can be rescinded when the following events occur:

- Stage conditions have de-escalated to non-emergency conditions, reference Section 6.6, the EAP Coordinator may terminate or rescind the activation of the EAP.
- All entities notified of the emergency condition have been communicated with and informed of current non-emergency conditions.

Regional flooding may occur prior to an incident at these dams and could continue for long periods of time. The staff gauge observer needs to have plans for staying or returning to the dam as conditions worsen. The termination responsibility should be handled by the EAP Coordinator or Assignee.

7.5 Responsibility for Stage Follow-Up

- Post-EAP activation event, discussions should be used to determine strengths and weaknesses in the EAP in order to improve the document for future events.
- Per 257.73(a)(3)(v) and 257.105(f)(8) of the CCR Rule, the EAP Coordinator or designee should prepare documents recording the activation of the EAP event, reference Appendix B. Only Stage 2 and Stage 3 are considered CCR Rule activations, see Section 2.0.

7.6 EAP Coordinator Responsibility

The EAP coordinator or Assignee will be responsible for EAP-related activities, including (but not limited to) preparing revisions to the EAP, establishing training seminars, and coordinating annual face-to-face EAP exercises between representatives of the Owner/Operator, local emergency responders, and additional federal and state agencies. This person will be the EAP contact if any involved parties have questions about the EAP.

7.7 Methods for Notification and Warning

Chesterfield County Emergency Services has the authority and responsibility for Mass Notification, Alert and Warning, and Population Protective Actions for all offsite facilities.

During an emergency condition, the EAP Coordinator will communicate timely information about conditions at the dams to the Chesterfield County Emergency Management Coordinator, who will initiate their own emergency notifications and action.

8.0 PREPAREDNESS

This section is intended to clearly outline the responsibilities of parties involved in all EAP procedures, including notification, surveillance, classification, evacuation, and termination.

8.1 Surveillance

The dams are attended and monitored under normal operating conditions for the duration of closure activities.

Chesterfield Power Station management and staff should monitor the status of weather fronts through the NWS. The NWS maintains a hurricane center that reports on hurricanes, tropical storms, and tropical depressions as they travel and affect coastal and inland areas. The website address is http://www.nhc.noaa.gov/.

The station is staffed 24/7 by the Operations Department. An operator should be dispatched from the on-shift crew to observe the staff gauge during an emergency situation. The staff gauge observer should never put themselves in harm's way. In the event a tornado, hurricane, or tropical depression occurs with high winds, the staff gauge observer shall use extreme caution while monitoring conditions.

Pre-planned access routes should be utilized, given that small streams crossing under state and local roads may flood, preventing safe access. The gauge observers and Dam Safety Region staff should never attempt to cross a road that has flood water crossing it at a depth greater than one foot unless the vehicle is specially designed for that purpose.

Alternative routes should be chosen for access by foot in the event that a car is unsafe for use. Other alternative means of transportation may be considered.

8.2 Routine Inspections

The Upper Ash Pond and Lower Ash Pond are inspected every seven days by the Environmental Compliance Coordinator (ECC) or other qualified personnel in accordance with the CCR regulations. The EQ Basin and Metals Treatment Pond are inspected monthly in accordance with the Virginia Dam Owner's Handbook. The Discharge Basin is inspected per the requirements in the EPP. If any findings trigger an action level, the EAP will be put into place immediately. Any findings in question will be discussed with a Dominion Power Generation Engineer and a resolution determined by the next inspection. Any maintenance needs will be relayed to the grounds contractor or construction contractor within one calendar week.

For the Upper Ash Pond, if possible, the observer should check the condition of the Upper Ash Pond slide gates. The slide gate should be fully opened for the large storm event.

8.3 Alternative Systems of Communication

Communications during a major rainfall event may be problematic. Telephone land lines may be used as the first means of communication. Cellular telephones can be used to supplement the land lines. Unfortunately, telephone lines, like electrical lines, are subject to damage by falling trees, so radio communication during these events is normally required.

8.4 Emergency Supplies

Stockpiling of Materials and Equipment: The location of necessary supplies and materials, such as barricades, sand, sandbags, etc., are either stored onsite or readily available through Dominion's emergency response contractors.

Emergency access to supplies and equipment should be planned before any emergency is called. Appendix C lists sources and locations of supplies and equipment that may be required during an emergency along with addresses and telephone numbers of the sources/suppliers.

9.0 INUNDATION ZONE PROPERTY OWNERS AND RESIDENTS

Inundation Maps are presented in Appendix E.

10.0 CERTIFICATION BY DAM OWNER/OPERATOR

I certify that procedures for implementation of this Emergency Action Plan have been developed pursuant to 40 CFR §257.73(a)(3) of the CCR Rule and coordinated with, and a copy given to each, local Emergency Services Coordinator serving the areas potentially impacted by the dam. Also, that a copy of this Emergency Action Plan has been filed with the Virginia Department of Emergency Management in Richmond, and a copy of the Dam Break Inundation Map has been provided to the local government office with plat and plan approval authority or zoning responsibilities, as designated by the locality for each locality in which the dam break inundation zone resides; that this plan shall be adhered to during the life of the project; and that the information contained herein is current and correct to the best of my knowledge.

(Signature of Dam Owner/Operator)

Date: Dec 11, 2024

Printed Name: Shane Young

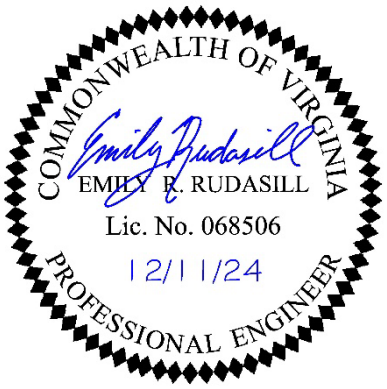
Title: Director III PG Operations

11.0 CERTIFICATION BY PREPARER

By means of this certification, the undersigned Licensed Professional Engineer attests that he/she is familiar with the requirements of 40 CFR §257.73(a)(3) and the Department of Conservation and Recreation regulations. This certification also demonstrates that the Emergency Action Plan is prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR §257.73; that procedures for required inspections and testing have been established; and the EAP is adequate for the Chesterfield Power Station Upper and Lower Ash Ponds, and the Low Volume Wastewater Basins.

This certification in no way relieves the owner or operator of a facility/site of his duty to prepare and fully implement the plan in accordance with the requirements of 40 CFR §257.73.

(Signature of Preparer)



Date: December 11th, 2024

Printed Name: Emily Rudasill

Title: Project Engineer

Address: 9800 JEB Stuart Parkway, Suite 100

Glen Allen, VA 23059

Telephone: 804-649-7035

APPENDIX A

ANALYSES OF IMPOUNDING STRUCTURE FAILURE FLOODS

APPENDIX A
Analyses of Impounding Structure Failure Flood

The structure failure flood for the Chesterfield Power Station Low Volume Water (LVW) EQ Basin is the full Probable Maximum Precipitation (PMP) in 6-hour duration event. The full Hazard Analysis is in the EQ Basin Hazard Classification Report.

The structure failure flood for the Chesterfield Power Station Lower Ash Pond Dam is 90% of the Probable Maximum Precipitation (PMP) in 6-hour duration event. Additional hazard classification and analysis details are provided in the Periodic Lower Ash Pond Hazard Classification Report prepared by Golder Associates, Inc. in October 2021.

The structure failure flood for the Chesterfield Power Station Upper Ash Pond Dam is 90% of the Probable Maximum Precipitation (PMP) in 6-hour duration event. Additional hazard classification and analysis details are provided in the Periodic Upper Ash Pond Hazard Classification Report prepared by Golder Associates, Inc. in October 2021.

APPENDIX B

PLANS FOR TRAINING, EXERCISING, UPDATING, AND POSTING THE EMERGENCY ACTION PLAN, REVISION SHEET, SUPPLEMENTAL DOCUMENTS

APPENDIX B
Plans for Training, Exercising, Updating, and Posting the Emergency Action Plan

1. **Training**

   Emergency action planning, generally, will be held once a year for responsible staff personnel.

2. **Exercises**

   a. Table Top Exercises - Table top exercises will be held, at a minimum, once every six years. This exercise will occur in the year that certification is required.

   b. Drills - A drill will be conducted each year by the owner except when a table top exercise is required.

   c. Annual drills will be conducted to verify lines of communication, phone numbers, personnel roles, and responsibilities. All parties on the Stage II/III notification flowchart are invited and encouraged to attend; however attendance from station personnel is mandatory. Record the invitation of the drill to emergency response representatives and the drill attendance and details in the Training Record.

3. **Updating**

   This EAP will be checked yearly during the drill exercise to determine if names, addresses, and telephone numbers of the people shown in Section 1 are accurate. The document will be updated at any time when a major change is determined to have occurred and noted in the plan's revision log.

   If an annual review of the EAP indicates that no amendments are necessary, a note shall be placed in the revision log noting that no changes were made during the annual review.

4. **Posting**

   This document will be on file with:

   - Dominion Energy (Dam Owner)
   - Chesterfield County Emergency Operations Center
   - VA Department of Conservation and Recreation (DCR), Division of Dam Safety
   - VA Department of Emergency Management

EAP Training Record
Chesterfield Power Station Ash Pond and LVWWS Dams

Training Date	Training Type	Results
12/20/2017	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/14/2018	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/13/2019	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/12/2020	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/04/2021	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/16/2022	Table Top Presentation	Updated EAP, distributed EAP to agencies
11/08/2023	Table Top Presentation	Updated EAP, distributed EAP to agencies
10/29/2024	Table Top Presentation	Updated EAP, distributed EAP to agencies

EAP Revision Record
Chesterfield Power Station Ash Pond and LVWWS Dams

Revision No.	Date Entered	Changed By	Description of Change
Original	April 2017		
1	June 2018	Golder Associates, Inc.	Updated phone numbers and notification trees
2	February 2019	Golder Associates, Inc.	Combined EAPs for LAP and UAP
3	January 2021	Geosyntec	Annual Update
4	December 2021	Golder Associates, Inc.	Annual Update
5	December 2022	WSP Golder	Combined CCR and non-CCR Pond EAPs
6	January 2024	WSP USA, Inc.	Annual Update
7	December 2024	Schnabel Engineering	Annual Update
8			
9			
10			
11			
12			
13			
14			
15			
16			

Chesterfield Power Station – Emergency Action Plan

Notification Log

Contact Name/Agency	Phone Number	Person Notified	Time Notified
Refer to Notification Process in the Emergency Action Plan			
Stage 1 Notifications			
Chesterfield Power Station Control Room	804-796-6129		
(EAP Coordinator) Joshua Harris/Dominion Energy	804-971-0288 (mobile)		
(Dam Operator) Shane Young/Dominion Energy	804-229-6920 (mobile)		
(Alternate Dam Operator) Matthew Woodzell/Dominion Energy	804-912-4185 (mobile)		
(Alternate Dam Operator) Kevin Bishoff/Dominion Energy	540-259-0384 (mobile)		
(Alternate Dam Operator) Dallas Wood/Dominion Energy	571-208-8423 (mobile)		
(Alternate Dam Operator) Troy Breathwaite/Dominion Energy	804-441-4811 (mobile)		
(Dam Engineer) Michael Winters/Dominion Energy	804-347-9451 (mobile)		
Stage 2 Notifications			
Chesterfield Power Station Control Room	804-796-6129		
(EAP Coordinator) Joshua Harris/Dominion Energy	804-971-0288 (mobile)		
(Dam Operator) Shane Young/Dominion Energy	804-229-6920 (mobile)		
(Alternate Dam Operator) Matthew Woodzell/Dominion Energy	804-912-4185 (mobile)		
(Alternate Dam Operator) Kevin Bishoff/Dominion Energy	540-259-0384 (mobile)		
(Alternate Dam Operator) Dallas Wood/Dominion Energy	571-208-8423 (mobile)		
(Alternate Dam Operator) Troy Breathwaite/Dominion Energy	804-441-4811 (mobile)		
(Dam Engineer) Michael Winters/Dominion Energy	804-347-9451 (mobile)		
Emergency Management Coordinator/Fire/Police (911 Dispatch Center)/Chesterfield County	804-748-1251 (24-Hour) or 911		
Virginia Emergency Operations Center	804-674-2400 (24-Hour) 800-468-8892 (24-Hour)		
EPA National Response Center	800-424-8802		
Environmental & Sustainability Incident Reporting/Dominion Energy	804-389-9242		
Virginia Department of Environmental Quality	540-574-7800 800-468-8892 (24-Hour)		
Virginia DCR Dam Safety Region 2 - Brenton Payne	804-786-1359		
Virginia Department of Health	804-864-7000		
If Applicable:			
In-House Counsel Clay Burns/Dominion Energy	804-310-3472		
Stage 3 Notifications			
Chesterfield Power Station Control Room	804-796-6129		
(EAP Coordinator) Joshua Harris/Dominion Energy	804-971-0288 (mobile)		
(Dam Operator) Shane Young/Dominion Energy	804-229-6920 (mobile)		
(Alternate Dam Operator) Matthew Woodzell/Dominion Energy	804-912-4185 (mobile)		
(Alternate Dam Operator) Kevin Bishoff/Dominion Energy	540-259-0384 (mobile)		
(Alternate Dam Operator) Dallas Wood/Dominion Energy	571-208-8423 (mobile)		
(Alternate Dam Operator) Troy Breathwaite/Dominion Energy	804-441-4811 (mobile)		
(Dam Engineer) Michael Winters/Dominion Energy	804-347-9451 (mobile)		
Emergency Management Coordinator/Fire/Police (911 Dispatch Center)/Chesterfield County	804-748-1251 (24-Hour) or 911		
Virginia Emergency Operations Center	804-674-2400 (24-Hour) 800-468-8892 (24-Hour)		
EPA National Response Center	800-424-8802		
Environmental & Sustainability Incident Reporting/Dominion Energy	804-389-9242		
Virginia Department of Environmental Quality	540-574-7800 800-468-8892 (24-Hour)		
Virginia DCR Dam Safety Region 2 - Brenton Payne	804-786-1359		
Virginia Department of Health	804-864-7000		
In-House Counsel Clay Burns/Dominion Energy	804-310-3472		

Action Log

Impoundment Name:	**Inspected By:**
Date of Inspection:	**EAP Coordinator:**

WEATHER CONDITIONS:

_____

_____

One Action Log Per Event	Time of Stage Implementation	Time of Stage Termination
Stage 1 Condition: (Observation Required every 6 hours)		
Stage 2 Condition: (Observation Required every 2 hours)		
Stage 3 Condition: (Continuous observation required)		

Time	Observer Name	Observations/Condition of Dam/Description of Concern/Failure *Note adverse conditions/inability to observe

Action Log

Time	Observer Name	Observations/Condition of Dam/Description of Concern/Failure *Note adverse conditions/inability to observe

General Comments/Event De-Brief Notes:

_____

_____

_____

_____

_____

APPENDIX C

ADDITIONAL RESOURCES

APPENDIX C
Additional Resources

Directory of Additional Personnel with Dam Safety Expertise

In addition to personnel shown elsewhere in this plan, the following list identifies other individuals with expertise in dam safety, design, and construction that may be consulted about taking specific actions at the dam when there is an emergency situation:

Name	Telephone	Responsibility
DCR, Division of Dam Safety	(804) 786-1359	Dam Safety Regional Engineer
Scott Sheridan, Geosyntec Consultants, Inc.	(804) 665-2810 (office) (804) 698-9352 (cell)	Consulting Design Engineer

Supplies and Resources

Heavy Equipment Service and Rental	Sand and Gravel Supply	Pumps, Generators, Lights
Rish Equipment Company 1410 West Hundred Road Chester, VA 23836 (804) 748-6411	Vulcan Materials Company 11520 Iron Bridge Road Chester, VA 23831 (804) 706-1200	Hertz Equipment Rental 9300 Burge Ave Richmond, VA 23237 (804) 271-6473
Hertz Equipment Rental 9300 Burge Ave Richmond, VA 23237 (804) 271-6473	J.B. Mulch Sales 11395 Chester Road Chester, VA 23831 (804) 796-5065	
Pipe	**Laborers**	**Others**
Carl M. Henshaw Drainage Products Inc. 13300 Ramblewood Dr. Chester, VA 23836 (804) 706-1313	CLC Construction Labor Contractors of Richmond 5380 Laburnum Ave Richmond, VA 23231 (804) 652-2151	

APPENDIX D

DISCHARGE BASIN EMERGENCY PREPAREDNESS PLAN

Virginia Department of Conservation & Recreation

Date Prepared: January 3, 2024
Prepared By: M. Winters

EMERGENCY PREPAREDNESS PLAN FOR LOW HAZARD VIRGINIA REGULATED IMPOUNDING STRUCTURES

Reference: Impounding Structures Regulations, 4VAC 50-20-10 et seq., including 4VAC 50-20-177, Virginia Soil and Water Conservation Board

1. Name of Impounding Structure: Chesterfield Power Station Low Volume Wastewater Treatment System Discharge Basin
   Inventory Number: 041068 City/County: Chesterfield County
   Other Name (if any):
   Stream Name: James River
   Latitude: 37.37379 Longitude: -77.38389

2. Name of Owner: Virginia Electric and Power Co.
   Address: 500 Coxendale Road, Chester, VA 23836
   Telephone: (Mobile) (804) 912-4185 (Business) (804) 796-6119
   Other means of communication: matthew.m.woodzell@dominionenergy.com
   (Note: 24-hour telephone contact required) (804) 796-6129

3. Name of Impounding Structure Operator: Matthew Woodzell
   Address: 500 Coxendale Road, Chester, VA 23836
   Telephone: (Mobile) (804) 912-4185 (Business) (804) 796-6119
   Other means of communication: matthew.m.woodzell@dominionenergy.com
   (Note: 24-hour telephone contact required)

   Name of Alternate Operator: Station Shift Supervisor
   Telephone: (Residential) (Business) (804) 796-6129 – 24 hour
   Other means of communication:
   (Note: 24-hour telephone contact required)

4. Name of Rainfall and Staff Gage Observer for Dam: Matthew Woodzell
   Address: 500 Coxendale Road, Chester, VA 23836
   Telephone: (Mobile) (804) 912-4185 (Business) (804) 796-6119
   Other means of communication: matthew.m.woodzell@dominionenergy.com
   (Note: 24-hour telephone contact required)

   Name of Alternate Rainfall and Staff Gage Observer: Colin Felts
   Telephone: (~~Mobile~~) (804) 796-6129 – 24 hour (Business) 804-768-5164
   Other means of communication: colin.e.felts@dominionenergy.com
   (Note: 24-hour telephone contact required)

5. 24-Hour Dispatch Center Nearest Impounding Structure – Police/Fire/Sheriff's Department:
   Dutch Gap Fire Station
   Address: 2711 W Hundred Rd, Chester, VA 23831
   24-Hour Telephone: 911 or (804) 748-4383

6. Name of City/County Emergency Services Coordinator(s): Jessica Robinson (Chesterfield County)

Address: 10501 Trade Court, North Chesterfield, VA 23832

Telephone: (804) 748-1236

Other means of communication robisonja@chesterfield.gov

(Note: 24-hour telephone contact required)

7. Describe the procedure and the responsible parties for notifying to the extent possible any known local occupants, owners, or lessees of downstream properties potentially impacted by the dam's failure.

There are no known properties within the downstream dam breach inundation zone (see inundation map).
During emergency, follow procedures provided in Section 8.

8. Discuss the procedures for timely and reliable detection, evaluation, and classification of emergency situations considered to be relevant to the project setting and impounding features. Each relevant emergency situation is to be documented to provide an appropriate course of action based on the urgency of the situation

The discharge basin will be visually monitored on a daily basis as part of normal LVWWTS operations. For conditions beyond normal range of operations, the following procedures will be followed for each emergency stage:

Stage I Condition—Non-Emergency, Unusual Event, Slowly Developing: When heavy continuous rainfall is occurring (8.5 inch or more in a 24-hour period).

ACTIONS:

1. The Dam Owner shall contact their engineer to investigate the situation and to provide feedback.
2. The Dam Owner shall contact the VA DCR Dam Safety Official to make him aware that the EPP has been enacted at a Stage I Condition and will keep him informed of conditions as they develop.

Stage II Condition - Potential Dam Failure Situation, Rapidly Developing*:* when the water surface elevation has reached El. 32.5 feet (between second and third outfall pipes) and continuing to rise. Dam Owner will monitor the dam at least once every 2 hours.

ACTIONS: 1. The Dam Owner shall contact their engineer to investigate the situation, provide feedback and recommend remedial actions to prevent failure.

2. The Dam Owner shall contact the VA DCR Dam Safety Official to make him aware that the EPP has been enacted at a Stage II Condition and will keep him informed of conditions as they develop.

Stage III Condition - Urgent; Dam Failure Appears Imminent or is in Progress*:* when the water surface elevation has reached El. 34.0 feet (invert of third 18 inch outfall pipe). Dam Owner will monitor the dam continuously.

ACTIONS: 1. The Dam Owner will contact 24-Hour Dispatch Center.

2. The Dam Owner shall contact the VA DCR Dam Safety Official to make him aware that the EPP has been enacted at a Stage III Condition and will keep him informed of conditions as they develop.
3. The Dam Owner shall contact their engineer to investigate the situation and provide feedback.

9. Attach a simple dam break inundation map, demonstrating the general inundation that would result from an impounding structure failure.

10. If there are public roads downstream from the impounding structure, identify by highway number and distance below dam:

NONE WITHIN THE INUNDATION ZONE

Route # _____ , _____ Miles Route # _____ , _____ Miles

Route # _____ , _____ Miles Route # _____ , _____ Miles

Provide name of resident engineer, VA Department of Transportation, (or City/County engineer):
Butch Sirry
Address: 2430 Pine Forest Drive, Colonial Heights, VA 23834

Telephone: (Residential) _____ (Business) (804) 674-2800
Other means of communication: _____
(Note: 24-hour telephone contact required) (800) 367-7623

Definitions:

Stage I Condition – Heavy continuous rain or excessive flow of water from ice or snow melt.

Stage II Condition – Emergency spillway activation or dam overtopping/breach may be possible.

Stage III Condition – Emergency spillway activation, dam overtopping or imminent failure is probable.

---

11. Amount of rainfall that will initiate a:

Stage II Condition	5.62	Inches per 6 hrs.
	7.04	Inches per 12 hrs.
	8.45	Inches per 24 hrs.
Stage III Condition	30.3	Inches per 6 hrs.
	34.6	Inches per 12 hrs.
	34.6	Inches per 24 hrs.

The amount of flow in the emergency spillway that will initiate a:

Stage II Condition	no emergency spillway	Feet (depth of flow)
Stage III Condition		Feet (depth of flow)

Total depth of emergency spillway available before crest of dam is overtopped: _____ Feet

---

12. Does a staff gage exist? ____ Yes _X_ No
Staff Gage Location and Description: _____

Frequency of observations by rainfall/staff gage observer during a:

Stage I Condition	Every 8 hours	
Stage II Condition	Every 2 hours	
Stage III Condition	Continuously	(recommend continuous)

Clearly identify access route and means of monitoring during flood conditions at the dam.
The main access route to the LVWWTS discharge basin shares an entrance off of Coxendale Road with the Lower Ash Pond
The access route takes an immediate right after passing the gate and heads west.
The access road curves to south along the eastern edge of the metals pond and ends by circling around the discharge basin.
The monitor shall follow the access route to the discharge structure to monitor the discharge basin during flood conditions.

Note: It is recommended that the Observer remain on post until potentially serious or serious conditions subside.

13. Evacuation Procedures:
    a. The dam owner/operator should notify the local emergency services office (i.e., the city/county 24-hour dispatch center). Phone number should be listed in #5 above.
    b. Once the local emergency services office has been notified of any problem at a dam site, it should take appropriate protective measures in accordance with the local Emergency Operations Plan and this Emergency Preparedness Plan. Local emergency services actions will include:
        (1) Notify the individuals who own downstream property
        (2) Begin Alert, Notification, and Warning
        (3) Immediately evacuating the inundation areas, when stage III conditions warrant.
        (4) Begin Emergency Public Information procedures open emergency shelters.
        (5) Provide Situation Reports to the State Emergency Operations Center (804) 674-2400 or (800) 468-8892.

    c. Once the local government has been notified of a condition requiring evacuation, the dam owner/operator and local government are mutually responsible for effecting evacuation.
        (1) The dam owner/operator will: Evacuation is not necessary.

        (2) Local emergency services will: No action necessary.

    d. Methods for notification and warning to evacuate include: Not applicable as dam failure will not require evacuation. Check appropriate method(s)

        _____ (1) Telephone
        _____ (2) Police/fire/sheriff radio dispatch vehicles with loudspeakers, bullhorns, etc.
        _____ (3) Personal runners for door-to-door alerting
        _____ (4) Radio/television broadcasts for areas involved

CERTIFICATION BY OWNER

I certify that a copy of this plan has been filed with Chesterfield County (City/County) and Jessica Robinson, the local Emergency Services Coordinator. Also, that a copy of this form has been filed with the State Department of Emergency Management; that this plan shall be adhered to during the life of the project; and that the information contained herein is current to the best of my knowledge.

Signed: Shane Young Shane Young

Owner's Signature Print Name

This _____ day of Jan 3, 2024 , 20 24 .

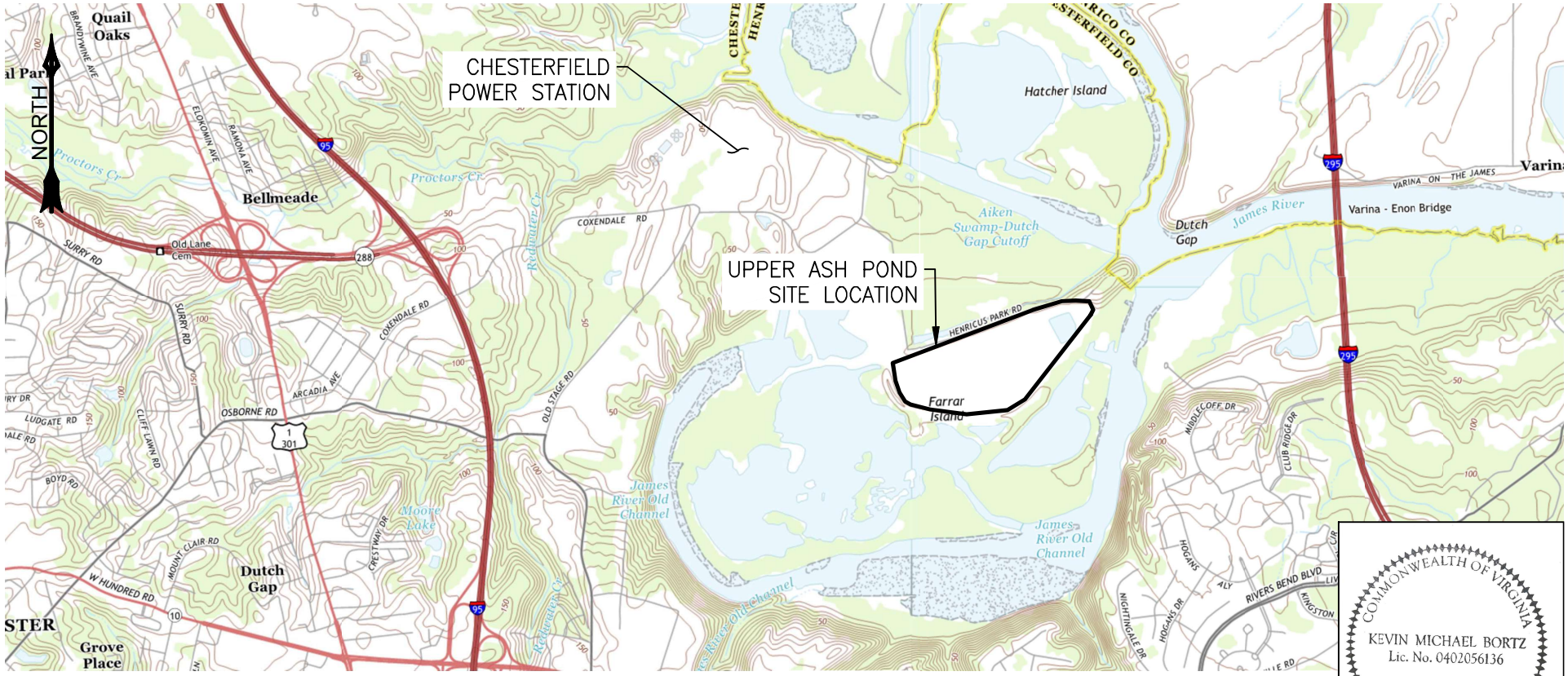
Please fill out and mail to:

Virginia Department of Emergency Management
Plans Division
10501 Trade Court
Richmond, Virginia 23236

Mail the executed form to the appropriate
Department of Conservation and Recreation
Division of Dam Safety and Floodplain Management
Regional Engineer

APPENDIX E

FIGURES



MAP REFERENCE:
USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES: DREWRYS BLUFF, VIRGINIA 2013,
DUTCH GAP, VIRGINIA 2013,
CHESTER, VIRGINIA 2013,
HOPEWELL, VIRGINIA 2013.

FIGURE 1
1" = 2000'

SCALE: 1" = 2000'

2000 0 2000 4000

COMMONWEALTH OF VIRGINIA
KEVIN MICHAEL BORTZ
Lic. No. 0402056136
PROFESSIONAL ENGINEER
4/17/2017

NO.:	DATE:	DWN:	CHK:	APV:	DESCRIPTION:
-					

REVISION RECORD

DRAWING TITLE: **VICINITY MAP**

PROJECT: **UPPER ASH POND**
CHESTERFIELD POWER STATION
CHESTERFIELD COUNTY, VIRGINIA

gai consultants

CLIENT: **DOMINION**
GLEN ALLEN, VIRGINIA

DRAWN BY:	CHECKED BY:	APPROVED BY:
MAYHOEJ	BORTZKM	JOYCEJM
REVISION: 0	SCALE: AS SHOWN	ISSUE DATE: 4/17/2017
	SHEET NO.: 1 OF 1	

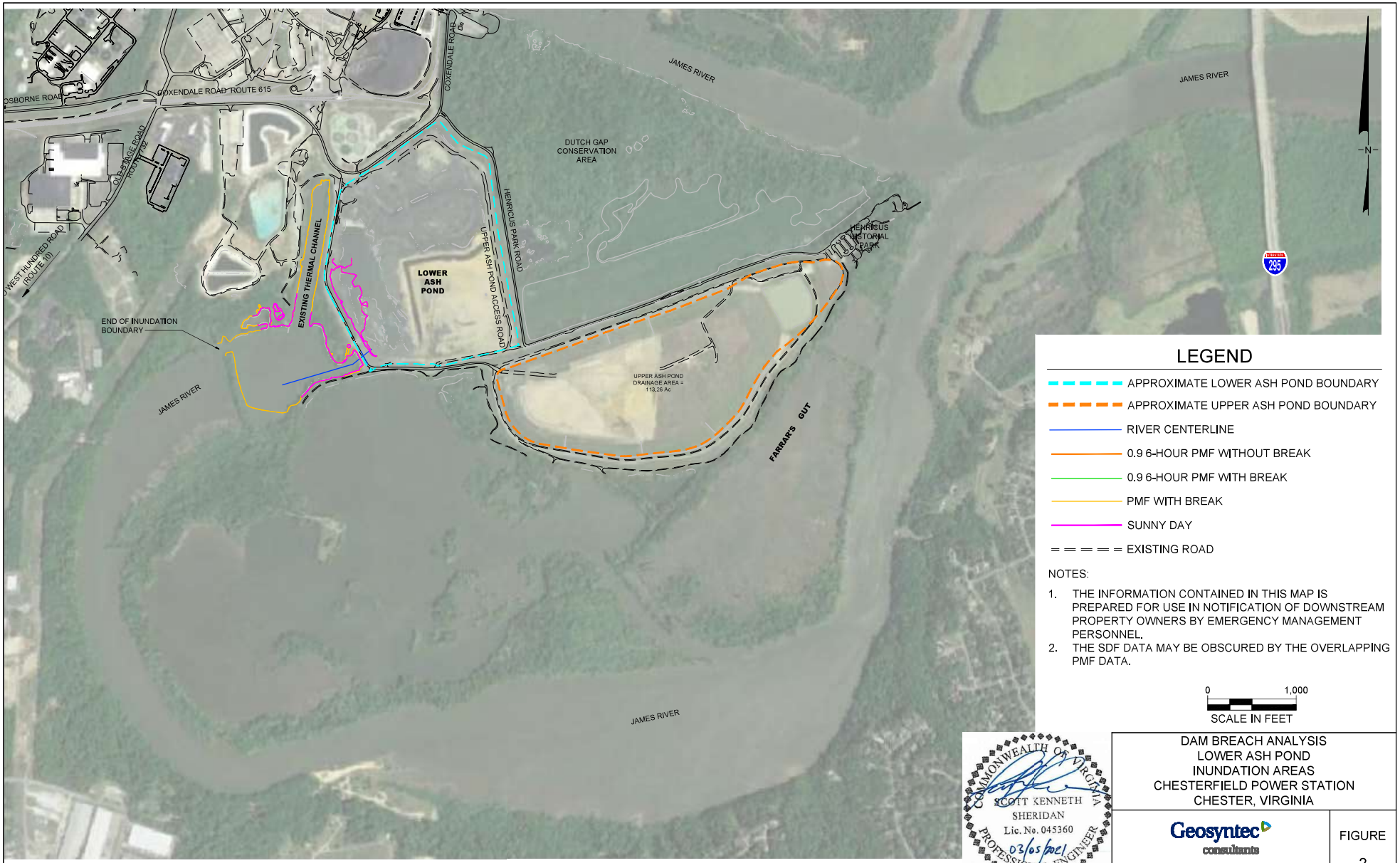
GAI FILE NUMBER: C150035-00-00-00-C-B2-009
GAI DRAWING NUMBER: B2-009

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

ISSUING OFFICE: Richmond | 4198 Cox Road, Suite 114,Glen Allen, VA 23060

GAI CAD FILE PATH: Z:\Energy\2015\C150035.00 – DOM–Chesterfld Pond Closu\CAD\Production Drawings\C150035–00–00–00–C–B2–009.dwg

PLOTTED ON: 4/17/2017 1:36:29 PM PLOTTED BY: Ed Mayhood PLOT FILE: GAI.stb



LEGEND

- APPROXIMATE LOWER ASH POND BOUNDARY
- APPROXIMATE UPPER ASH POND BOUNDARY
- RIVER CENTERLINE
- 0.9 6-HOUR PMF WITHOUT BREAK
- 0.9 6-HOUR PMF WITH BREAK
- PMF WITH BREAK
- SUNNY DAY
- EXISTING ROAD

NOTES:

1. THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL.
2. THE SDF DATA MAY BE OBSCURED BY THE OVERLAPPING PMF DATA.

0 1,000
SCALE IN FEET

COMMONWEALTH OF VIRGINIA
SCOTT KENNETH SHERIDAN
Lic. No. 045360
PROFESSIONAL ENGINEER
03/05/2021

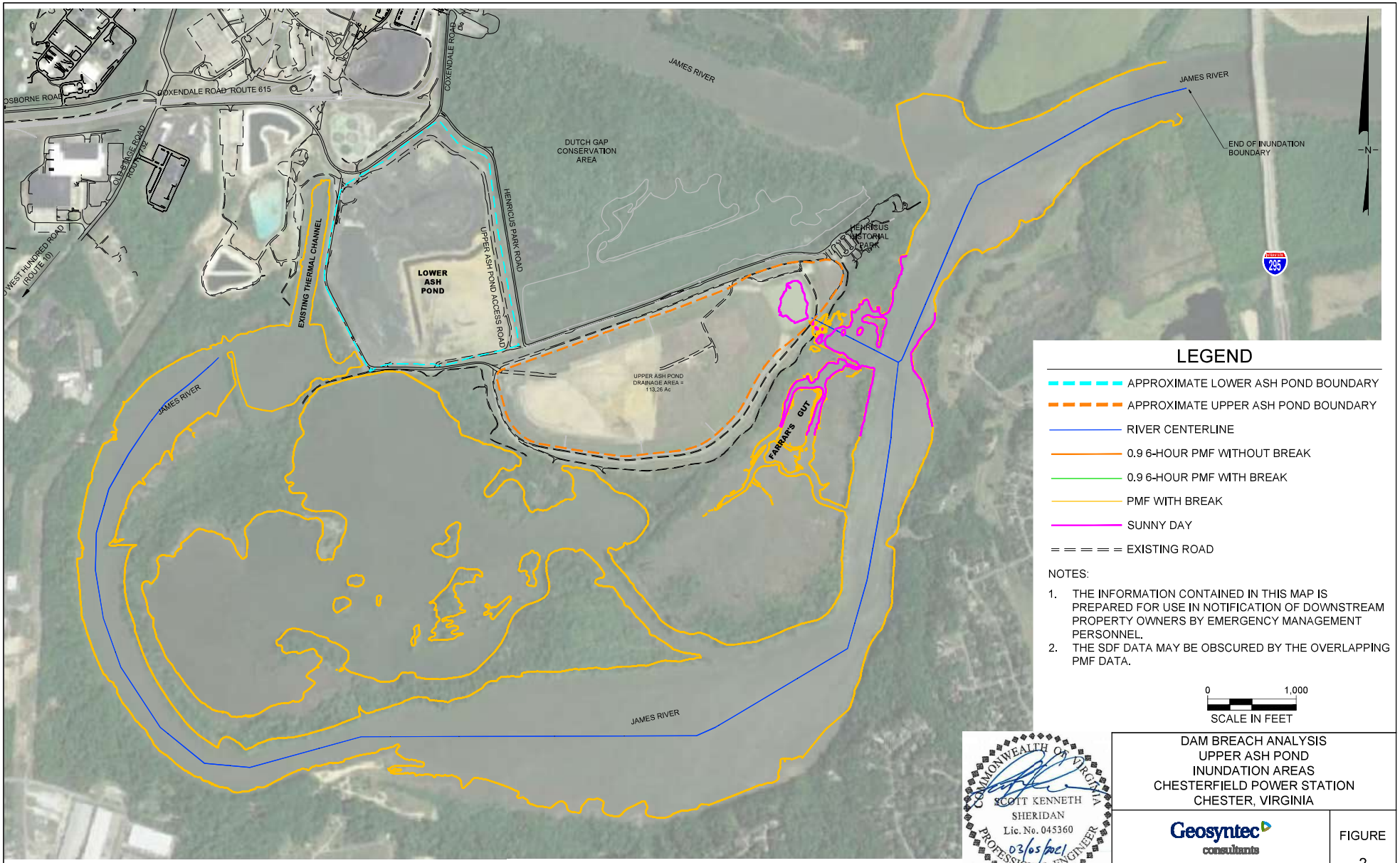
DAM BREACH ANALYSIS
LOWER ASH POND
INUNDATION AREAS
CHESTERFIELD POWER STATION
CHESTER, VIRGINIA

Geosyntec consultants

PROJECT NO: MV1912 | MARCH 2021

FIGURE 2

L:\DIDOMINION\CHESTERFIELD POWER STATION\DAM BREACH ANALYSIS - LAP\JAP\1912-1 LAP DAM_BREAK_ANALYSIS - FIG 2 - INUNDATION - Last Saved by: TVanex on 3/9/21



LEGEND

- APPROXIMATE LOWER ASH POND BOUNDARY
- APPROXIMATE UPPER ASH POND BOUNDARY
- RIVER CENTERLINE
- 0.9 6-HOUR PMF WITHOUT BREAK
- 0.9 6-HOUR PMF WITH BREAK
- PMF WITH BREAK
- SUNNY DAY
- EXISTING ROAD

NOTES:

1. THE INFORMATION CONTAINED IN THIS MAP IS PREPARED FOR USE IN NOTIFICATION OF DOWNSTREAM PROPERTY OWNERS BY EMERGENCY MANAGEMENT PERSONNEL.
2. THE SDF DATA MAY BE OBSCURED BY THE OVERLAPPING PMF DATA.

0 1,000
SCALE IN FEET

COMMONWEALTH OF VIRGINIA
SCOTT KENNETH SHERIDAN
Lic. No. 045360
PROFESSIONAL ENGINEER
03/05/2021

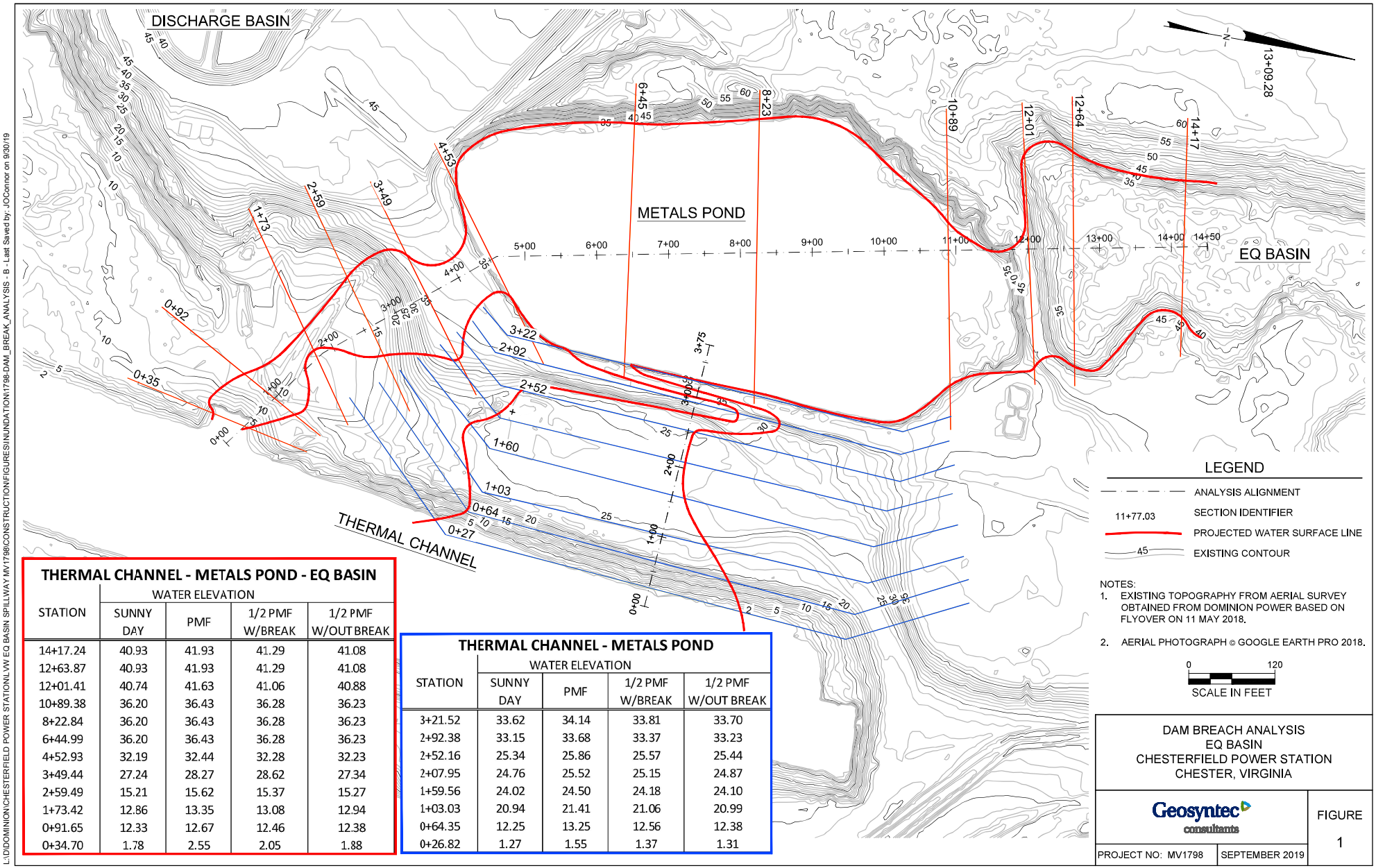
DAM BREACH ANALYSIS
UPPER ASH POND
INUNDATION AREAS
CHESTERFIELD POWER STATION
CHESTER, VIRGINIA

Geosyntec consultants

PROJECT NO: MV1912 | MARCH 2021

FIGURE 2

L:\DIDOMINION\CHESTERFIELD POWER STATION\DAM BREACH ANALYSIS - LAP\JAP\1912-1 UAP DAM_BREAK_ANALYSIS - FIG 2 - INUNDATION - Last Saved by: TVanex on 3/3/21



THERMAL CHANNEL - METALS POND - EQ BASIN

STATION	WATER ELEVATION			
	SUNNY DAY	PMF	1/2 PMF W/BREAK	1/2 PMF W/OUT BREAK
14+17.24	40.93	41.93	41.29	41.08
12+63.87	40.93	41.93	41.29	41.08
12+01.41	40.74	41.63	41.06	40.88
10+89.38	36.20	36.43	36.28	36.23
8+22.84	36.20	36.43	36.28	36.23
6+44.99	36.20	36.43	36.28	36.23
4+52.93	32.19	32.44	32.28	32.23
3+49.44	27.24	28.27	28.62	27.34
2+59.49	15.21	15.62	15.37	15.27
1+73.42	12.86	13.35	13.08	12.94
0+91.65	12.33	12.67	12.46	12.38
0+34.70	1.78	2.55	2.05	1.88

THERMAL CHANNEL - METALS POND

STATION	WATER ELEVATION			
	SUNNY DAY	PMF	1/2 PMF W/BREAK	1/2 PMF W/OUT BREAK
3+21.52	33.62	34.14	33.81	33.70
2+92.38	33.15	33.68	33.37	33.23
2+52.16	25.34	25.86	25.57	25.44
2+07.95	24.76	25.52	25.15	24.87
1+59.56	24.02	24.50	24.18	24.10
1+03.03	20.94	21.41	21.06	20.99
0+64.35	12.25	13.25	12.56	12.38
0+26.82	1.27	1.55	1.37	1.31

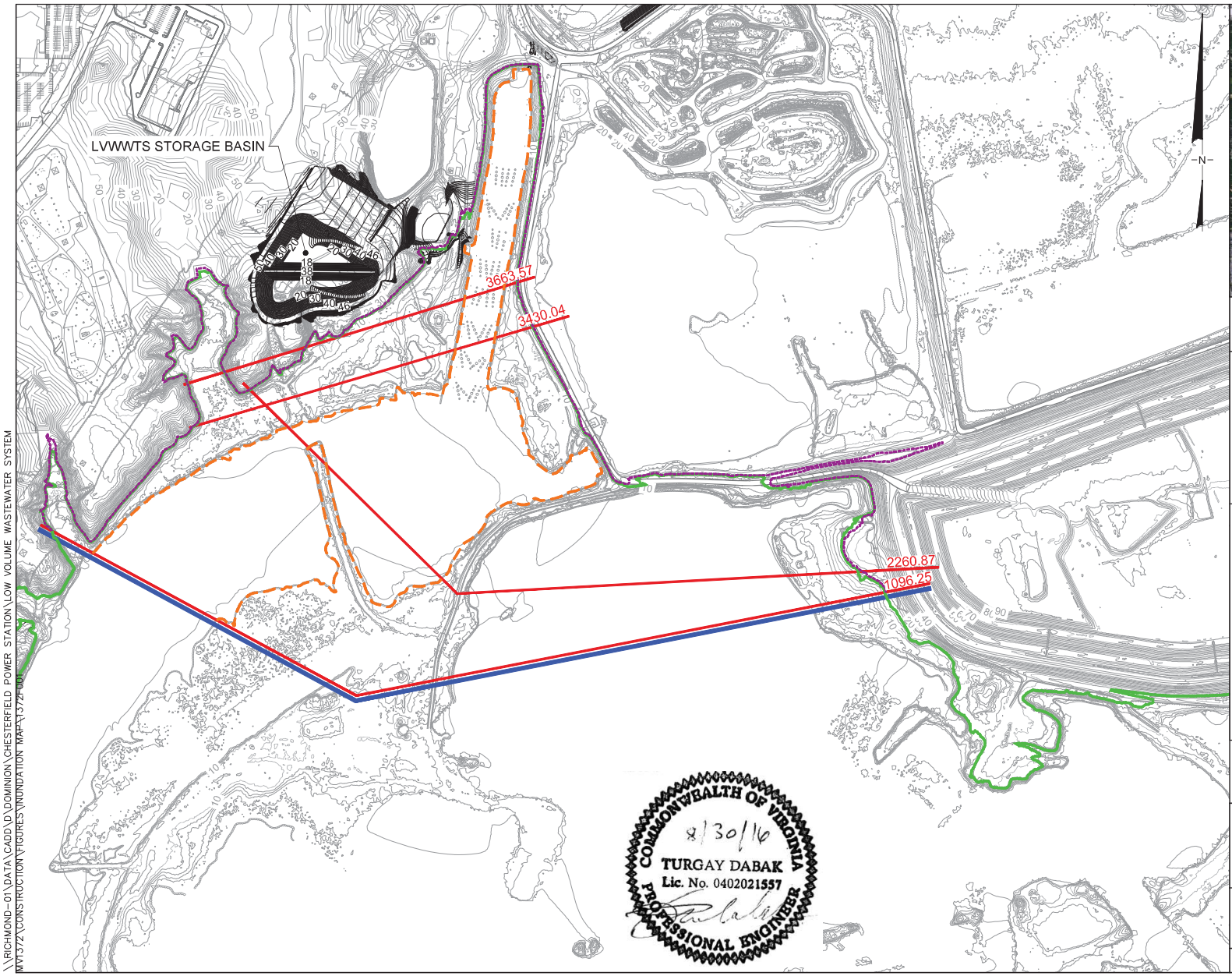
DAM BREACH ANALYSIS
EQ BASIN
CHESTERFIELD POWER STATION
CHESTER, VIRGINIA

Geosyntec consultants

FIGURE 1

PROJECT NO: MV1798 | SEPTEMBER 2019

L:\DOMINION\CHESTERFIELD POWER STATION\LVW EQ BASIN SPILLWAY MV1798\CONSTRUCTION\FIGURES\INUNDATION\1798-DAM_BREAK_ANALYSIS - B - Last Saved by: JOConnor on 9/30/19



LOCATION MAP

SCALE: 1" = 5000'

NOTES:

1. MAPPING OF FLOODED AREAS ARE APPROXIMATE. EXTENT OF ACTUAL INUNDATION MAY DIFFER FROM THE INFORMATION PRESENTED ON THIS MAP.
2. DAM HAZARD CLASSIFICATION: LOW
3. SPILLWAY DESIGN FLOOD: 100-YEAR STORM
4. VERTICAL DATUM: NAVD88

LEGEND

- CROSS SECTIONS
- LIMIT OF STUDY
- PMF BREAK MAPPING
- 100-YEAR MAPPING
- SUNNY DAY BREAK MAPPING
- 3663.57 — HEC-RAS HYDRAULIC MODEL CROSS SECTION NUMBER

0 500' 1000'

SCALE IN FEET

COMMONWEALTH OF VIRGINIA
8/30/16
TURGAY DABAK
Lic. No. 0402021557
PROFESSIONAL ENGINEER

LVWWTS STORAGE BASIN
DAM BREACH INUNDATION MAP
CHESTERFIELD COUNTY, VIRGINIA

Geosyntec consultants

SHEET 1 OF 1

PROJECT NO: MV1222 | AUGUST 2016

\\RICHMOND-01\Data\CADD\DOMINION\CHESTERFIELD POWER STATION\LOW VOLUME WASTEWATER SYSTEM MV1372\CONSTRUCTION\FIGURES\INUNDATION MAP\1372F001.dwg

\\RICHMOND-01\DATA\CADD\D\DOMINION\CHESTERFIELD POWER STATION\LOW VOLUME WASTEWATER SYSTEM MV1372\CONSTRUCTION\FIGURES\INUNDATION MAP\1372F001.dwg